

US Environmental Protection Agency
Region 9: The Pacific Southwest

Strategic Plan
April 21, 2004



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Dear Reader:

I am pleased to share US EPA Region 9's Strategic Plan. This Plan is aligned with the goals and objectives of the Agency Strategic Plan(*), which was restructured from ten to five goals to better focus our work on results and to simplify our planning architecture. It is not intended to capture all the work of the Pacific Southwest Region and our state, tribal and territorial partners. Rather, the Plan represents a broad view of our regional priorities for the next three to five years, highlighting some of the activities we will undertake during this period to contribute to achievement of the Agency goals and objectives. In the future, the Regional Plan will include specific Annual Performance Goals, which will be updated and appended to the Plan each year.

We are grateful to our state and tribal partners and others who share our commitment to ensuring a safe and healthful environment for all who live, work, and travel in our Region. Our Regional Strategic Plan was developed with input from our partners; we will continue to seek their involvement and advice as our planning efforts evolve.

Our Regional Strategic Plan provides a current snapshot of the Pacific Southwest Region and a broad road map to our approach for protecting our environment. The Plan will be refined and adjusted over time to reflect changing conditions, priorities, and strategies. The work of developing our Plan will enable us to sharpen our focus on the highest priorities of the Region, with greater environmental results.

Sincerely,

Wayne Nastri
Regional Administrator
Pacific Southwest Region/9
US EPA

*US EPA 2003-2008 Strategic Plan: Direction for the Future



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Note to reader:



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The Region 9 Strategic Plan follows agency guidance for regional plans, with five primary chapters.

Chapter One includes an overview of unique Region 9 factors that influence our environment and our strategies, and a summary of our Region's most critical environmental priorities.

Chapter Two provides more detailed discussion of our strategies to meet the five Goals defined in the Agency Strategic Plan, including strategies to meet the Objectives and Sub-Objectives specific to each Goal. As such, Chapter 2 closely tracks the structure of the Agency Strategic Plan to the Sub-objective level, providing a summary of the current status of our Region with regard to each Sub-objective, followed by strategy highlights for achieving that Sub-objective. (Please note that the Agency Strategic Plan further includes Targets and Annual Performance Goals for each Sub-objective. Detailed strategies to achieve these Targets and Annual Performance Goals are beyond the scope of this multi-year Regional Strategic Plan, and will be addressed through a later annual process).

Chapter Three describes some of our Region's priorities which cross all five Goals, but are not captured specifically within any one Goal. It is intended to provide the reader a better understanding of how the actions within the five Goals knit together into cohesive strategies for these Regional priorities.

Chapter Four describes our Region 9 accountability systems.

Chapter Five outlines some of the most significant priorities of our states, tribes and territories, as identified through ongoing dialogue with our governmental partners. These are issues we will work together on, in close collaboration, in the years ahead.

We will continue to refine this Strategic Plan, develop appropriate environmental indicators of progress, and monitor our performance.



Chapter One Regional Overview

Geographically, Region 9 is vast, spanning the largest distance of all the other EPA regions, stretching from the Arizona border to the Outer Islands near Japan, and from the Oregon border to Mexico. Both the highest elevation in the contiguous United States and the lowest are in Region 9, little more than 50 miles apart (Mount Whitney and the Mojave Desert, both in California). EPA Region 9 protects a wide variety of habitats, including beaches, oceans, mountains, agricultural valleys, deserts, fragile tropical islands and atolls, and unique seasonal habitats. We are home to the most biologically diverse areas on earth (California, Hawaii, and the Pacific Islands), and more than 95% of the nation's fragile coral reefs are located here. Approximately 60% of Region 9's lands are federally owned. As a result, federal facilities represent a significant environmental and industrial sector for the Region (25% of US federal facilities are located here, and about 33% of closing military bases). Region 9 is the most productive agricultural zone in the country – 21% of the nation's milk cows are located here, 50% of the nation's produce is grown here, and 25% of the nation's agricultural workers are employed here. Three of our states, California, Nevada and Arizona, are among the fastest growing states in the country. Culturally, Region 9 includes the indigenous peoples of 146 federally recognized Indian tribes, each with its own unique governmental organization. Nearly half the tribal land in the United States, and one quarter of tribal members living on the reservations, are located in Region 9. Our Region is home to the numerous distinct cultures of Hawaii and the Pacific Islands, and shares a border with Mexico.

We are pleased to present this Strategic Plan (the Plan) for the Pacific Southwest Region. Our Plan aligns with the structure of the Agency's 2003-2008 Strategic Plan, and articulates our current plans to meet the Agency's goals and objectives. The process of preparing the Regional Plan has helped us to identify the most pressing environmental priorities for our Region, and to promote a shared understanding of those priorities and our strategies among all our Region 9 employees, and among our state, tribal, and territorial partners. The Plan is not intended to capture all the programs or actions of the Regional office, but to provide an overview of regional issues, and highlights of our actions to make progress over the next 3 to 5 years. We will continue to refine this Plan, develop appropriate environmental indicators of progress, and monitor our performance.

In striving to protect our environment, the Pacific Southwest office of EPA considers our unique regional features, and we work closely with our state, tribal, and territorial counterparts. We are aware of the significant resource pressures faced by each of our states as they experience consecutive years of budget deficits. Similarly, territories and some tribes are experiencing budget deficits. Helping our partners continue to deliver environmental services during this era of strained budgets is a significant priority for all Region 9's environmental programs.



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As we prepare our 2004 Regional Strategic Plan, we are committed to continue building upon the tremendous progress the country and our Region has made to improve public health and the environment over the last three decades. Region 9's strategy will emphasize approaches which harness market forces; stimulate, promote and support effective partnerships and collaborations; encourage, develop and utilize new technologies; and foster a cross media perspective (within sectors or geographic areas) in addressing issues, to avoid inadvertent transfer of problems from one media to another. It will include strong, strategically-planned compliance programs that provide a level playing field for all regulated entities, assure the public that environmental laws are being effectively enforced, and serve as a deterrent to noncompliance. We will continue to develop appropriate environmental indicators of progress, and work to ensure all our programs, traditional or innovative, are geared to delivery of measurable results. We will support regional strategic planning, to continuously refine and communicate our priorities, and sharpen our focus on strategies to meet our goals. Finally, communicating our Region's accomplishments, environmental progress, and future challenges with the public will be an integral and vital component of all our programs. These directions will energize and enable us to make even further environmental progress.



Goal 1 Clean Air and Global Climate Change

Region 9 has some of the most serious air quality issues in the country. There are 13 areas in our region that do not meet air quality standards (nonattainment areas) for 1-hour ozone, twenty for particulate matter of 10 microns (PM-10), seven for sulfur dioxide (SO₂), and three for carbon monoxide. Based on projections, we also will have large areas designated as nonattainment for the new 8-hour ozone and PM 2.5 standards. In fact, most of the population of Region 9 will live in nonattainment areas for one or both of these pollutants. The health impacts of not meeting air quality standards and poor air quality can be considerable, including asthma, breathing difficulties, long-term damage to respiratory systems, and premature death. Air pollution also affects the environment by reducing visibility, damaging crops and buildings, acidifying lakes and streams, stimulating the growth of algae in estuaries, and contributing to the bioaccumulation of toxic chemicals in fish.

The most significant air quality priorities for Region 9 are found in 5 geographic areas: California's Central Valley (San Joaquin Valley); the South Coast area of California; Phoenix, Arizona; Clark County, Nevada; and the US/Mexico border area of California and Arizona. The air quality problems in these areas are complex, both in their sources and solutions. Large and rapidly growing populations result in associated expansion of construction activities, ever-increasing demands for energy, and increasing vehicular traffic, all of which contribute to worsening air quality. Addressing these pollution problems will require significant resource commitments for EPA and our partners, and a willingness to try different approaches. While each of these geographic areas has its own unique concerns and solutions, our strategy will have common elements. Working with our state and tribal partners, we will employ a combination of innovative approaches, voluntary programs, and traditional program tools, all based on strong science, to achieve environmental results. Educating stakeholders on the importance of clean air, and reinforcing key messages to gain and maintain support through well-placed communications will be an integral component of Region 9's air quality strategy. We will continue to provide federal grants to our state and tribal partners. The Region 9 air grants program is one of the largest in the country, with over \$31 million targeted to our most significant problems. In addition, we will convene and support with our grant funds collaborative efforts with community, industry, non-governmental, and governmental partners. We will ensure that air quality issues are considered in all Region 9 collaborative efforts, stressing multi-media improvements wherever possible (e.g., Dairy Quality Assurance Partnership, community-based toxics reduction efforts). We will actively seek opportunities to leverage our manpower and grant resources with those of other private and public organizations. Finally, we will deliver a strong, well publicized compliance assurance program targeting our most significant air quality environmental and noncompliance problems.

San Joaquin Valley, California



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Region 9 has redesignated the San Joaquin Valley in Central California as being in extreme nonattainment for 1-hour ozone. This redesignation would make the Valley only the second such area in the country to receive this classification of extreme non-attainment. The redesignation will allow the state more time to achieve necessary emission reductions for attainment of the 1-hour ozone standard by 2010. Another consequence is that more stationary sources will need to reduce their air pollution or obtain air pollution permits before they can operate. The Valley has very high projected levels of pollution for the new 8-hour ozone and PM 2.5 standards. Solving the air quality problems of the San Joaquin Valley is a major challenge due to its unique geography, meteorology and types of air pollution sources, combined with a large and growing population. The Valley is a huge area in Central California surrounded on three sides by mountain ranges. During hot summers, transported pollutants are mixed with pollution from the Valley's 3.2 million residents, 25,000 farms, and oil and gas industries to form ozone. In winter, the stagnant inverted air consisting of fine particle pollution from nitrogen oxides, volatile organic compound and crustal material persists for months. The solutions to these air quality problems are difficult, as more and more people move into the Valley, only to commute long distances to their jobs in the San Francisco Bay Area where affordable housing is scarce.

Our strategy to improve San Joaquin Valley air quality will include a combination of innovative approaches and regulatory tools to achieve clean air. We will utilize US Department of Agriculture's (USDA) Environmental Quality Incentive Program (EQIP) funds to complement and build upon the success of California Air Resources Board's (CARB) Carl Moyer Program to upgrade diesel irrigation engines. In collaboration with the University of California at Davis and other stakeholders, such as the Western United Dairymen, we will develop new approaches to address air quality issues at dairies. We are working with the San Joaquin air district and other stakeholders, such as USDA and farm groups, to formulate common sense conservation management practices for control of dust from farms. On the regulatory side, we will continue to work with CARB and the San Joaquin air district to develop plans for addressing particulate and ozone exceedences (State Implementation Plans, or SIPs). We will support the local district in implementing the settlement agreement reached regarding lifting the California agriculture exemption from Title V operating permits (including dairies); development of air credits for agricultural operations; development and implementation of flexible best available control measures (BACM) for agricultural operations (particularly significant sources of PM-10); and research on emissions from dairies. Working with a coalition of Valley interests, we will develop community-based voluntary toxics reduction initiatives to reduce diesel particulate matter, ozone, PM-2.5 and PM-10; we will also implement a San Joaquin Valley Energy Efficiency/Renewable Energy Air Strategy to reduce greenhouse gas intensity.

South Coast Air Basin of California

Although air quality has improved over the last several years, the South Coast Air Basin of California still ranks among the worst for air quality in the country,



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designated in extreme nonattainment for 1-hour ozone, serious nonattainment for PM-10 and serious nonattainment for carbon monoxide. We will continue to work closely with the state and local air quality management district and other stakeholders to pursue sources of air pollution. We will use all our tools—permits, enforcement, rulemaking, partnerships, and technical support—in Region 9's South Coast Strategy. Elements of our strategy include focused action on development and approval of the South Coast ozone air plan; support of community-based toxics reduction projects, including an aircraft emission study at Los Angeles Airport and the Port of Los Angeles/Gateway Cities diesel retrofit project; and compliance assistance activities to low compliance sectors. Diesel emissions from a variety of sources in the South Coast basin contribute significantly to ozone, fine particulate as well as to high levels of diesel particulate matter, a major source of toxic risk. EPA's emissions standards for new on-road engines and fuel, and our proposed standard for non-road engines and fuel, set a tough bar for new diesel engines. However, the slow turnover of the diesel fleet will delay the full benefit of these standards for the breathing public into the future. EPA recognizes the need to find ways to reduce emissions from the existing diesel fleet sooner than through natural turnover. We are convening a western collaborative to create a strategy, including incentive programs and policy direction, that has as its goal major emissions reductions from a variety of existing diesel sources, in as rapid a time-frame as possible.

Phoenix, Arizona

Arizona has made substantial progress toward cleaner air over the past several years, but PM-10 remains a continuing problem in Phoenix and elsewhere in the state, and for tribal lands. In addition, it appears Phoenix will not meet the new 8-hour ozone standard. Having attained the one-hour ozone standard, the state and local agencies will continue to aggressively implement emission reductions identified in the ozone SIP. These include the vehicle emissions inspection program, the cleaner burning gasoline program, VOC controls on stationary sources, off-road vehicle and engine standards, and myriad transportation control measures. For PM-10, we will work with those state and tribal areas that have PM-10 problems to craft individual solutions to their specific situations. In Phoenix, we will continue to refine agricultural measures, support implementation of dust control from construction activities, respond to the decision from the Ninth Circuit Court on the adequacy of the Phoenix PM-10 Plan, and act on the SIP submittal addressing the Salt River SIP Call, a subpart of the Phoenix area PM-10 plan. EPA's efforts will go hand in hand with state and local efforts to inform the regulated community of the need to control PM-10 from all activities within the PM-10 nonattainment area. EPA will need to support state and local inspection and enforcement efforts, and we will also need to support the increasing stringency of state and local regulations to control fugitive dust. We will continue to implement the community based air toxics reduction program currently underway in the South Phoenix area.

Clark County, Nevada



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The Las Vegas Valley in Clark County is currently designated serious nonattainment for carbon monoxide, but with several years of clean data, we expect to receive a request to redesignate it to attainment in 2004. This area is the only portion of the state that may not meet the new 8-hour ozone standard when 3 years of data are included. The most significant air quality problem for the Las Vegas area is that it remains in serious nonattainment for PM-10. Although Clark County has developed a PM-10 plan for the Las Vegas Valley, careful implementation of the control measures together with a strong compliance assistance and enforcement program are necessary to make progress toward cleaner air and, ultimately, attainment. With our state and tribal partners, we will focus on implementation of the PM-10 and CO state implementation plans; support a community-based pilot initiative to develop an air toxics emission inventory and improved monitoring in Clark County; and work with the Las Vegas casinos to develop and implement a voluntary solar energy project and other energy efficiency programs to reduce greenhouse gas emissions.

US/Mexico Border Air Transport

California and Arizona in Region 9 share an international border with Mexico. Our proximity to the Mexican border presents a number of trans-boundary air quality challenges. Many border area residents, especially those in heavily populated urban areas, are exposed to health-threatening levels of air pollutants including ozone, particulate matter, carbon monoxide, sulfur dioxide, and air toxics. Visibility impairment exists in most of the pristine areas along the border. To address these issues, we will work with our US and Mexican partners in a bi-national effort to implement the Border 2012 Plan. (The Border 2012 Program is a partnership among federal, state, local governments, and tribes to protect the environment and public health in the border region consistent with the principles of sustainable development.) The Border 2012 Plan has a 10-year planning horizon to implement solutions to long-range border environmental issues. We will use local community workforces to enhance air monitoring networks and further define baseline air quality conditions. Accurate evaluation of air quality in the border area will allow both countries to successfully identify and implement measures that reduce levels of air pollutants within all common airsheds in the border region. We will target diesel retrofits and establishment of low sulfur fuel in the border region. We will also partner with the CARB to facilitate technical training for Mexican staff to build their capacity to operate and maintain air networks in Tijuana, Rosarito, Tecate and Mexicali. We are partnering with the North American Development Bank to fund major air reductions projects in the border area, such as road paving. Reductions of emissions from mobile sources and power plants will continue to be a priority, with a pilot project addressing inspection and maintenance programs in Tijuana.

Reducing Greenhouse Gases

Rapid population growth in Region 9 has created increasing demands for energy, with increasing emissions of greenhouse gases. We will address atmospheric



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change by encouraging conservation and energy efficiency, and pursuing development of renewable energy resources. Key to our strategy will be development of voluntary partnerships with others who share our goals. For example, we have entered into a partnership with the US Department of Energy called "Framework for Cooperation." Elements of the Framework include working with the Las Vegas casinos to encourage energy conservation and renewable energy sources; and implementation of the San Joaquin Valley Energy Efficiency/Renewable Energy Air Strategy, to seek voluntary reductions in this geographic area. We will also continue to promote Energy Star programs that designate products as energy efficient, and recruit construction partners to a new Energy Star Buildings program. We will expand other voluntary programs such as Commuter Choice, which recognizes increased commuter benefits provided by employers, and SmartWay, which establishes incentives for fuel efficiency improvements in greenhouse gas emissions reductions with freight industry sectors.

Community-based Toxics Reduction Initiatives

Region 9 will work with communities to develop community-based air toxics reduction projects. These projects will actively educate communities to understand the multi-media sources of pollution in their neighborhoods, through collection of data and meetings. We will also develop response actions to gain immediate reductions (e.g., diesel retrofits to reduce particulate and NOx emissions). In the near term, the communities we will work with include South Phoenix, AZ; West Oakland, San Joaquin Valley, Los Angeles, Bayview/Hunters Point in CA; Clark County, NV; and Pearl City, HI.

A challenge for us in carrying out our primary strategic activities is the large amount of core program work engendered by the unique governmental structure in the Region. We have nearly three times the number of independent air districts as any other region, resulting in a continual stream of State Implementation Plan revisions. Our 146 independent tribes each have unique cultures and governments. We have a large backlog of SIP approvals and a demanding roster of lawsuits and court orders, which require our attention. Region 9 will target and prioritize actions to reduce our SIP backlog, to ensure consistency and avoid confusion between state and federal actions.



Goal 2 Clean and Safe Water

Much of our Region is arid, and water is a very precious and often scarce resource. Our bays, rivers, streams and lakes support critical fisheries, habitats and provide recreational opportunities. The freshwater areas provide irrigation water for our abundant agricultural industry, and provide drinking water throughout the region. Heavy dependence on groundwater as the primary source of drinking water to our rapidly growing population makes groundwater protection a high priority. In addition, ensuring the waters off our famous Pacific beaches remain swimmable and protective of fragile coral reefs is vital.

In protecting and restoring our water supplies and resources, we act as a steward of several funding sources. Each year we award and manage about 600 program and project grants to state and local governments and others to build wastewater and drinking water infrastructure for states, tribes and at the Mexican border, and to support state and tribal implementation of EPA programs. For example, our State Revolving Fund (SRF) is an innovative method of financing a range of environmental projects to protect/restore water quality. While traditionally a grant program to fund the building of wastewater infrastructure, SRF now provides funding for nonpoint source and estuary protection programs through loans issued at below market rates. SRF allows federal, state and local agencies to leverage limited dollars. Our Region 9 goals are to improve the pace of utilization of our funding, and improve return on investment.

Protecting and restoring the waters of the region is a responsibility we share with our state, tribal, territorial and local partners, who are delegated authority to implement many federal water programs. Ensuring the provision of clean, safe drinking water throughout our region is a top priority. While we expect this year that 92% of Public Water Supply Systems in our region will meet the requirements of federal health-based drinking water standards in place by 1994, meeting the Agency's 2008 goal of 95% compliance with 2001 standards is uncertain. Strains on the resources of our states (which have faced significant budget shortfalls for several years), tribes, territories and water utilities have been compounded by recent added homeland security responsibilities to ensure our public water supplies are secure. In addition, new federal rules established to ensure that the public receives safe water (e.g., for arsenic, disinfection byproducts, and radionuclides) are expected to be proposed or take effect in the next two years, resulting in increasing workloads for our partners implementing Safe Drinking Water Act programs. The new rules are technically complex to understand and implement. Assessing and ensuring compliance with these new requirements will require significant resource investments, and reliable and accurate data reporting by states and others. Working with our states, tribes and territories to help fill the gaps in their water programs will be a significant focus for us in the coming years.

Watersheds



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Region 9 and our partners are strongly committed to protection of our valuable surface and ground water resources. Across the region, we are coordinating a variety of programs to address water quality protection within each watershed, from nonpoint source reduction to oil spill prevention and hazardous waste management, in a concerted, cohesive effort to reduce contamination. Working in close partnership with our states, communities and industry, we are assessing stressors to impaired watersheds, and designing implementation actions to reduce the impacts of pollution. These implementation tools will include traditional core program components, such as National Pollutant Discharge Elimination System (NPDES) permits reissuance to regulate industrial and municipal wastewater and stormwater discharges; development of Total Maximum Daily Loads (TMDLs) defining sources of pollutant loading to the impaired watersheds; and targeted compliance assurance. Also included will be strategic deployment of our funding sources on a watershed basis, critical assessment of monitoring needs, and use of innovative, voluntary reduction programs. Watersheds that we will have direct involvement in include Lake Tahoe, the Sacramento and San Joaquin Rivers, and the Klamath River Basin in California; the San Pedro River basin in Arizona; and the Hanalei River watershed in Hawaii. Our States will be working to address far more watersheds.

Beaches

Southern California has the highest number of beach user days in the nation, greater than all other beaches combined. In California, 5000 beach closures were reported in Fiscal Year 2002, due to elevated levels of bacteria and contaminants. While this trend appears to be increasing, it may be due to improved monitoring and data collection. Guam also reports many closures. We will support improved monitoring through distribution of BEACH Act funds, and we will work to reduce runoff to coastal waters through targeted use of nonpoint source funding, and targeted compliance actions.

Tribal Lands

Nineteen percent of Region 9 tribal households lack complete indoor plumbing, and 40% of the tribal population is served by systems with significant drinking water violations (including fecal or total coliform detections). Significant funding increases will be needed to ensure that tribal communities have access to safe drinking water and adequate sanitary facilities, to meet the 2008 agency goal of 95% of populations served by community water systems in Indian Country receiving drinking water compliant with health-based standards. Our strategy will emphasize provision of EPA funding through Safe Drinking Water Act tribal set asides, and to leverage funds of other federal agencies (US Bureau of Indian Affairs, Indian Health Service) in a united approach to meet assessed needs. These funds will support tribal efforts for new construction and rehabilitation of tribal drinking water systems and wastewater systems; implementation of feasibility studies, infrastructure and vulnerability assessments; source water protection programs; improved data



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collection and tracking; and Underground Injection Control (UIC) programs. We will assist tribes in developing and implementing their water quality and watershed protection programs through Performance Partnership Grants, and federal assistance eligibility determinations ("Treatment as State" applications). We will provide direct implementation of the UIC program in Indian Country, and work to delegate primary enforcement authority to tribes where appropriate. We will provide training and regulatory workshops to ensure tribal system operators are fully informed of federal requirements and will conduct arsenic sampling for all tribal water systems to assess compliance with new drinking water requirements.

Fish Safe to Eat

Fish consumption is a significant dietary staple for many of our tribal communities and minority populations in our region. Elevated contaminants in fish are problematic in several communities, and have resulted in fish consumption advisories issued in California, Arizona, and Nevada. Areas impacted include the San Francisco Bay (mercury, PCBs, and dioxin), Los Angeles (DDT), Arizona (mercury, DDT, and chlordane), Guam (PCBs), Nevada (mercury), and some inland streams of Hawaii (DDT, and chlordane). We will work with state, tribal and local partners to ensure multilingual signs are posted in vulnerable areas, and provide outreach and education. We and the states will develop TMDLs to define acceptable contaminant loads to water bodies, and work in collaboration with key partners to assess, monitor, and address multi-media sources of contaminants affecting fish and shellfish (San Francisco Estuary Institute).

Pacific Islands

According to 2000 Census statistics, 8% to 38% of Pacific Island residents do not have access to adequate plumbing (the national average is 1.2%). Even where homes have plumbing, the public water utilities have frequent problems providing reliable supplies of safe drinking water. The situation is most severe on Guam, where system breakdowns have resulted in sewage contamination of drinking water distribution systems, and island-wide "boil water notices" affecting 100% of the population as a result of fecal coliform contamination. Guam residents face more risk of getting sick from drinking water than anywhere in the United States. Saipan's residents cannot drink their water because it is too salty. About half of Saipan residents get water from their tap only 2 hours per day. At current funding levels, only 35% of the population of the Pacific Islands will meet EPA's 2008 goal of receiving drinking water that meets all applicable health-based requirements (versus the goal of 95%). In order to meet the 95% goal, water utility management and operations will need to be improved, and water utilities will need access to more capital than currently provided through State Revolving Funds. EPA Region 9 will work with the US Department of Interior and other federal agencies to identify and implement actions to address the growing gap between available funding and capital needs, and with Guam and the US Department of Justice to implement the Stipulated Order signed in 2003 to improve management and



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operations of Guam Water Utility. We will also work to approve a nonpoint source program for Guam, where beach closures due to water contamination are frequent. In Saipan, we will facilitate bringing independent experts to the island to peer review operations of the water utility and make suggestions for improvement. We will participate with the Governor's Task Force on Drinking Water, which has a goal of bringing 24-hour water service to Saipan.

US/Mexico Border

Region 9 has three priority communities along the US/Mexico border that lack adequate wastewater facilities: Nogales, Arizona; Mexicali and Tijuana located in Baja California. At each of these locations, we are working with our Mexican counterparts, local and state partners and associated binational institutions (Border Environment Cooperation Commission, North American Development Bank) toward solutions. The sewage problems are long-standing and of a binational nature. Sewage originating in Mexico is being discharged into shared waters, crossing into the US at the border (Nogales Wash, New River, or Tijuana River), and impacting US communities down gradient, posing an unacceptable human health and environmental risk on both sides of the border. Each facility is in the process of completing designs for infrastructure to allow for adequate collection and treatment of the sewage prior to discharge. Our near term goals under the Border 2012 Plan are to complete the upgrade for the Tijuana Wastewater Treatment Plant, to improve water quality conditions along Tijuana beaches and neighboring US cities (Imperial Beach, San Diego), and to initiate the Mexicali II Wastewater Treatment Plant to improve quality of the New River in the Mexicali, Baja California/Imperial Valley area.

Hawaii Cesspools

Drinking water sources especially vulnerable to contamination exist in Hawaii, where cesspools are used extensively for decentralized wastewater disposal and may have direct discharge of raw sewage, impacting on groundwater and coastal waters. It is estimated that there are as many as 2,000 large capacity cesspools in the state. Large capacity cesspools are banned by UIC regulations, and must be closed by April, 2005. We are dedicating resources for technical and financial assistance to replace these systems.



Areas in Noncompliance with Arsenic Standard

The new arsenic drinking water standard will take effect in 2006. Under current conditions, we expect 30% of Arizona, California, Nevada, and some tribal water systems to be unable to meet the new standards, largely due to naturally-occurring arsenic. Most systems will need to install treatment systems for the first time, will need training for system operators, and will need to institute significant consumer rate increases. We will help by providing Drinking Water State Revolving Funds (DWSRF) capitalization grants to states, arsenic sampling for all tribal water systems, conducting technical workshops and training, and providing funding through Safe Drinking Water tribal set asides for arsenic treatment facilities and feasibility studies on tribal lands.

California Dairies - (San Joaquin Valley Federal Dairy Waste Initiative)

California is the nation's leading dairy state. Over the last 30 years, the number of milk cows in California has more than doubled (to over 1.5 million) while the number of dairies has dropped by half (to approximately 2,200). Each cow produces about 120 pounds of manure per day. This concentration of the dairy industry has caused a corresponding increase in the amount and concentration of animal waste.

Dairy manure contains nutrients, salts, bacteria, and organic matter that can create environmental problems when they enter rivers, streams, or groundwater. Decomposing manure also emits air pollutants, including volatile organic compounds (precursors to the formation of both PM 2.5 and ozone), particulates, ammonia (a precursor to PM 2.5), methane (a global warming gas), and odors.

Region 9 will work to address environmental impacts of dairies. We will support our states in implementing the federal Concentrated Animal Feeding Operations (CAFO) rule, and move forward with our work with California dairy operators, the University of California at Davis, and the state in the voluntary California Dairy Quality Assurance Partnership. We will work to develop and implement TMDLs in targeted geographic areas, and targeted compliance assurance actions.

In addition, we are undertaking the San Joaquin Valley Federal Dairy Waste Initiative, a coordinated effort to build upon -- not duplicate -- existing dairy manure management and treatment programs, and to provide federal funds, vision and support to initiate new projects appropriate to this entire geographic area. Members of this federal coalition include EPA Region 9, USDA Rural Development, USDA Natural Resources Conservation Service, and the US Department of Energy Seattle Office. By addressing dairy manure management issues on a community and/or regional basis, we intend to develop opportunities that may not be available to producers individually. Community participants or beneficiaries of these projects may include groups of dairy producers, crop farmers, urban or rural residents,



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municipalities, utilities, wastewater treatment facilities, and others.

Projects that this Initiative may support are: utilization of manure in biomass plants to generate energy; plumbing dairies into existing human sewage treatment plants, hauling and redistributing manure; and co-composting dairy manure with urban green waste.

Other Geographic Priorities for our Water Programs

We will continue to work to improve water quality in priority geographic areas through effective strategic partnerships. With our partners, we have made strides to protect and restore the San Francisco Bay/Delta ecosystem through participation in the CALFED Program, a collaborative water planning effort of EPA, federal and state agencies and other stakeholders. We will continue to work to improve the clarity and quality of Lake Tahoe's waters through financial support and active involvement in the Tahoe Environmental Improvement Program, a partnership of local, state, and federal interests. In addition, we will address critical ecosystems of Morro Bay, Santa Monica Bay, Coral Reefs and Wetlands (see Goal 4).



Goal 3 Land Preservation and Restoration

Protecting our land and restoring contaminated properties is a high priority for Region 9. Left uncontrolled, hazardous and nonhazardous wastes can contaminate soils, ground and surface waters, and air, and result in serious health impacts to humans, critical habitats, and ecosystems. As populations increase, growing volumes of solid waste, combined with diminishing availability of land disposal sites, strain communities' abilities to provide the waste management services. This is particularly critical in isolated island environments. Resource conservation, through waste reduction and reuse, is becoming ever more important.

Control and Clean Up of Contaminated Properties

Our top priorities for Goal 3 are to expeditiously control and remediate our contaminated sites. Since 1980, we along with state and tribal partners have addressed a universe of approximately 5,200 contaminated sites. One-hundred twenty-six of these sites are on the Superfund National Priorities List and 163 are high priority RCRA Corrective Action sites; another 1,157 are awaiting assessment, or are being addressed under other federal, state, or tribal cleanup programs. The remainder of the sites have been removed from the Superfund inventory to encourage economic development.

The Agency Strategic Plan has established targets for controlling human exposures to contaminants, and for controlling contaminated groundwater migration. Region 9 is highly dependent on groundwater as a source of drinking water, and contamination of this important resource can have far ranging consequences. For example, perchlorate contamination of domestic drinking water supplies affects over 12 million people in Region 9, some of whom draw their water from groundwater, and others from the Colorado River. Controlling the discharge sources of this perchlorate contamination in Region 9 (Kerr McGee in Nevada, Aerojet and others in California), and preventing surface runoff and migration of groundwater contaminated with perchlorate will remain a high priority for us and our state partners.

The Agency Strategic Plan also establishes targets for completing construction of remedies at our contaminated sites. This is a high priority for the Agency and for our Region. We work closely with our state and tribal partners to establish priorities, workplans and schedules for these cleanups. Many of our contamination sites are highly complex, resource-intensive, long-term cleanups. Often they involve basin-wide cleanup of groundwater, sometimes up to 200 feet below the surface, and involve numerous sources of contamination and responsible parties. In addition, they may involve new or emerging contaminants we have not yet dealt with, for which cleanup standards or health risk data are not established (e.g., perchlorate, MTBE). All these factors complicate investigation and cleanup of these sites, and often dramatically increase costs. Our ability to meet national goals for



completion of construction at these sites will be dependent on receiving sufficient funding each year for Superfund sites, and adequate oversight resources for all sites. Meeting cleanup goals for our Underground Storage Tanks (UST) sites may be a particular challenge in the region, as remaining UST cleanups often involve oxygenates such as MTBE, which is difficult to remediate. States primarily oversee the UST program and have experienced staffing reductions.

Ensure Region 9's Continuing Preparedness to Respond to Emergencies

We have taken several steps recently to increase our Emergency Response capability, including construction of a new Emergency Response Center in San Francisco, and opening a satellite Emergency Response Center in the Los Angeles area to achieve more rapid and comprehensive response in this major metropolitan area. We have increased our Emergency Response staff by adding 5 new On-scene Coordinators, and we recently developed a plan to improve response abilities. We will continue to promote development of our response capacity through training of state, territory and tribal staff (Hazmat, anthrax, and radiation response training), and through implementation of Sister-City agreements with our US/Mexico Border Sister Cities. We will also work to minimize releases from petroleum and other high risk facilities through unannounced inspections, drills and audits.

Assist Tribal Waste Programs

Management and regulation of waste disposal practices continues to present major challenges for tribes in Region 9. Tribal communities must contend with illegal or "midnight dumping", out of compliance and unsafe landfills operated within Reservation boundaries, and the absence of adequate infrastructure to dispose of wastes. EPA, the Indian Health Service, and Region 9 tribes have identified over 700 solid waste open dumps in Indian Country which need closure. We will reduce risks to public health and the environment, and meet our Trust responsibilities to protect tribal resources, by assisting tribal governments in closing open dumps in Indian Country. We will support tribal efforts with regional tribal solid waste funds, training and technical assistance (including a full-time circuit rider), and work with our tribal partners to improve their waste management practices and regulatory capacity/infrastructure. In addition, more than 175 abandoned or unaddressed leaking underground storage tanks have been reported on tribal lands. We will evaluate eligibility for obtaining Trust Funds for assessment and cleanup of these tanks, and provide training and technical assistance on tanks management and cleanup.



Promote Resource Conservation

Region 9 has a long history of promoting resource conservation through emphasis on waste reduction, reuse, recycling and environmentally preferable purchasing programs. In recent years EPA has worked in strategic partnerships with industry, government and citizen partners to promote waste reduction in numerous industries, including metals finishing, auto fleet maintenance, government, dry cleaning, and hospital sectors. We have leveraged our grant funds to actively promote recycling efforts in all our western states. We have already met the national recycling goal, with a regional recycling rate of 56%. However, our states and tribes range widely in their recycling program development. The region is playing a leadership role in promoting the national Resource Conservation Challenge to increase waste minimization, recycling, pollution prevention, and material and energy conservation. In the coming years, we will focus our conservation efforts on the following streams and sectors, which are significant in our region: construction and demolition debris, electronics, green building, federal facility purchasing, and chemical reduction partnerships with the foam and furniture industries to reduce brominated flame retardants. We will foster partnerships with stadiums and other large entertainment venues, gold mines, the travel industry, and television industry. We will work closely with state partners, assisting Hawaii with implementation of its new Bottle Bill, and Nevada to increase recycling rates. We will also collaborate with our tribal partners to improve recycling on tribal lands.



Goal 4 Healthy Communities and Ecosystems

To protect, sustain and restore the health of communities and ecosystems, we will bring together a variety of programs and tools; will create strong partnerships with governments, industry, and community members; and will target our available funding sources to our highest priorities, leveraging them with funds from other sources.

Key Region 9 Communities

Region 9 will employ a full range of traditional and innovative approaches to improve the health of communities with significant environmental issues, disproportionate environmental impacts, or limited access to environmental services. Some of the communities we will work closely with include:

The US/Mexico Border: Significant environmental issues span all environmental programs at the Border ranging from discharge of sewage and industrial pollutants to bi-national surface waters to regional haze, growing piles of flammable waste tires, solid waste management, and community health issues. We will employ a multi-media approach with the goal of implementing measures that will tangibly improve human health and environmental conditions at the border. We will work closely with our US and Mexican partners to implement the Border 2012 Plan. This bi-national program has a 10 year planning horizon, with goals to reduce water, air and land contamination, reduce exposure to pesticides, reduce exposure to chemicals as a result of accidental chemical releases and/or acts of terrorism, and promote environmental stewardship and compliance.

The Pacific Islands: The major environmental problems facing the Islands are access to reliable, safe drinking water, controlling water pollution (including fecal coliform and runoff), inadequate solid waste management, legacy wastes, and natural resource destruction (coral reefs, wetlands, fisheries). In partnership with Island governments and coalitions, we will provide training and technical support, and explore ways of addressing the growing gap between needed infrastructure, capital needs, and available federal funding.

Environmental Justice

The principal objective of Environmental Justice (EJ) is the reduction of actual and potential disproportionate environmental impacts to low income communities and communities of color. EPA defines EJ as the fair treatment and meaningful involvement of all people regardless of race, color, national origin or income with respect to the development, implementation and enforcement of environmental laws, regulations and policies.

Region 9 is working with several of our most vulnerable communities to facilitate



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and support community-based toxics reduction efforts. These efforts engage those most directly affected by contaminants in identifying and assessing sources of community pollution, and developing targeted actions to quickly reduce impacts. Some of the communities we are working with include Clark County, NV; South Phoenix, AZ; Pearl City, HI; and the California communities of West Oakland, Los Angeles, Bayview/Hunters Point in San Francisco, and the San Joaquin Valley. In addition, our Environmental Justice office is working to assist tribal and immigrant communities who are often affected by fish advisories; is active with our Mexican border, Pacific Island communities, and migrant worker camps; and is working to provide customized training on environmental justice to EPA, state, and community programs.

Assist Communities to Reuse Contaminated Property

Region 9 has an active and successful Brownfields program, which promotes and assists communities to reuse contaminated properties being cleaned up under our Superfund, RCRA, and Underground Storage Tanks Programs. A priority for our Brownfields program is to fully integrate its resources, educational outreach, and activities across all 3 programs. We will work with communities to assess, clean up and develop properties for reuse, supporting community efforts with grant funds for Brownfields assessments, cleanups, job training, USTFields grants, Showcase Communities, and other projects.

Pesticides and Worker Protection

As the nation's most productive agricultural zone, Region 9 is a significant user of pesticides, and a significant employer of those who work with pesticides. To prevent and reduce pesticide risks to humans and ecosystems, we will use a multi-method approach. We will work with states and tribes to implement and enforce Worker Health and Safety programs to reduce risk of pesticide poisonings and injuries. We will include a federal certification and training program for the Navajo Nation. Our grants to state, tribes and territories are designed to develop stronger pesticide regulations, and inspections to yield better enforcement programs. To reduce risk to children, we will promote Integrated Pest Management practices in schools throughout our region. Also, we will continue to ensure responsible and compliant use and sale of pesticides via enforcement.

Our Agriculture Initiative includes several partnership projects aimed at minimizing pesticide applications, and promoting alternative growing practices that simultaneously involve pest management, soil building, irrigation, cover cropping, waste management and other biological and cultural practices. For example, University of California researchers are coordinating with grape, prune, citrus growers and dairy advisors to utilize Biologically Integrated Farming Systems (BIFS) to reduce air, water and human health impacts. Our "Protected Harvest Program" is developing market-based incentives to support multi-media protection with almonds, dairies, processing tomatoes, and other high profile commodities. Our



Food Quality Protection Act grant program is leveraging alternative pest management approaches away from using highly toxic pesticides on wine grapes, cotton, rice, stone fruit, and strawberries.

Reducing Chemical Risks

With our governmental and industry partners, we will develop initiatives to reduce exposure to toxic chemicals, supporting these initiatives with grant funds aligned to our priorities. Significant chemical priorities for our Region include mercury from goldmining and hospitals, brominated flame retardants from electronics and foam furniture, dioxins from incineration, and Persistent and Bioaccumulative Toxics (PBT) chemicals in the San Francisco Bay. We will continue to fully implement and actively promote the Toxic Release Inventory (TRI) program as a tool to reduce toxic emissions, we will focus our lead and asbestos programs on childhood exposures, and we will work with industry to accelerate removal of PCBs from use and ensure safe disposal.

Children's Health

Children's bodies are small and still developing, and they may be exposed to greater contaminant risk due to their behaviors of playing on the ground and putting their hands in their mouths. In addition, they may be at greater risk of exposure to contaminants in their home or school environments—lead paints, asbestos, diesel fumes from school buses, and pesticides. Region 9 is home to 15% of the nation's children under the age of 5. In addition, the nation's second largest school district (Los Angeles) is in Region 9. Our strategy to protect the health of our children involves active promotion and assistance to schools to utilize our Indoor Air Quality Tools for Schools program; targeted outreach and education through our lead abatement and SunWise programs; and assistance to school districts in siting, design, construction and renovation of "green schools". We will work to build awareness through promotion of public-private partnerships (industry Adopt-a-School programs, educational outreach at grocery stores) promote asthma prevention through workshops, and target grant support (Arizona's Children's Health Initiative).

Ecosystems and Wetlands

Preservation of Region 9's valuable species, and the ecosystems and habitats upon which they depend for survival is a significant priority. Region 9 is home to 95% of the nation's fragile coral reefs. These precious reefs are being degraded at an alarming rate. In partnership with federal, state and local entities we will work to better understand the effects of land-based pollution sources on the reefs and to develop and implement plans to protect reefs from these sources. We will participate with EPA headquarters and USDA in the US Coral Reef Task Force.

We will also focus our efforts on 3 estuaries of national significance under the



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National Estuary Program: Morro Bay, Santa Monica Bay and San Francisco Bay. Here we will use regulatory and non-regulatory approaches to support restoration of the estuaries. Comprehensive Conservation and Management Plans have been completed for all three estuary projects, and implementation of the plans is underway.

In Region 9, vast areas of wetlands have been degraded and destroyed by a range of human activities, including construction of dams and highways, and conversion of wetlands to agricultural lands and property development for residential and commercial uses. We will continue to foster wetlands protection and restoration to increase our region's acreage of wetlands by 2008 in support of agency goals. We will initiate, support with grants, and provide technical assistance to partnerships with agencies and non-governmental organizations focused on identifying, acquiring and restoring wetland resources (e.g., Local Land Trust Partnership in Central Valley, Southern California Wetland Recovery Program, and San Francisco Bay Wetlands Restoration Program). We will utilize our full range of regulatory tools, including permit reviews, review of dredging applications, and enforcement to protect wetlands.



Goal 5 Compliance and Environmental Stewardship

We will work to protect human health and the environment by improving environmental behavior through regulatory and nonregulatory means. With our partners, we will continue to work to ensure that regulated entities meet federal environmental requirements. In addition, we will continue to encourage government, business and the public to not only meet but exceed required compliance (“environmental stewardship”) through programs that minimize or eliminate pollution at its sources, and use energy and natural resources more efficiently.

Compliance Assurance

Our compliance assurance strategy is built on four foundations: providing a credible presence (assuring the public that environmental laws are being effectively enforced); ensuring a level playing field for the regulated community; obtaining significant results (public and environmental health outcomes achieved as a result of returning facilities to compliance); and delivering technical assistance to noncompliers to return them to compliance. We will work in close partnership with states and tribes to provide a strong compliance assurance program. In light of increasing pressures on state and tribal budgets, developing clearly articulated agreements on compliance priorities, strategies, and accountability measures will be important for all elements of our compliance program. Vital to our shared ability to maintain a credible compliance assurance program is access to good data for targeting and tracking performance. In conjunction with our partners, we will work to support the development of strong state-federal and tribal-federal data networks. In addition, we will continue use of vigorous and consistent local news coverage to make the public and the regulated community aware of our compliance assurance work and the results it is achieving. Specific priorities for each of our environmental programs are presented in Goal 5.1. A few of the priorities for compliance include: focus on sectors with low compliance, environmental justice areas, and community toxics programs; assist CAFO operators on new rules; award grants to compliance assistance providers; leverage our financial and manpower resources by working with compliance assistance partners; and provide targeted training and outreach materials (e.g., large capacity septic systems and drainfields on tribal lands).

Collaboration, Pollution Prevention and Innovation

Region 9 and our partners are increasingly challenged by environmental problems that defy conventional solutions, and budget constraints that make it necessary to accomplish more with fewer resources. More than ever, we are compelled to find innovative ways to solve environmental problems through collaboration with others who share common interests, promote innovative technologies, and explore alternative ways to implement our core regulatory programs. We are working to build a culture that looks for different, better ways to reach our goals and create



stronger, more cost-effective environmental protection systems. We believe that engaging a diversity of groups will foster trust and consensus, leading to better environmental solutions. Region 9 has been engaged in numerous collaboratives. These examples illustrate various types of collaborations: voluntary to regulatory based; locally driven to internationally driven; pollutant specific to multi-media. A few examples include our air pollution reduction initiative with the Nevada gold mines, hospital waste reduction initiative, metal finishers initiative, and sustainable agriculture initiative, US/Mexico border 2012 program, and the Southern California Wetlands Recovery Project (see Goal 5.2.4).

Assisting Tribes

EPA has a unique Trust role -- exclusive of state and local jurisdictions -- to ensure tribal resources are protected. Region 9 directly implements every federal program in 145 of the 146 tribes within our region. Conditions on many Region 9 reservations are severe. More than one third of reservation homes are at or below the poverty level. Twenty-seven percent of homes lack complete plumbing. Nearly half of tribal water systems fail to meet Safe Drinking Water Act Requirements. More than 700 open dumps are found on reservation lands. Over a third of Region 9 tribes breathe air that does not meet air quality standards. We work in close partnership with tribes to assist them in addressing their environmental needs. In addition to our relationship with individual tribes, we meet quarterly with a Regional Tribal Operations Committee (RTOC), comprised of representatives of many tribal governments. This group advises EPA on ways to improve our tribal programs to be more responsive to tribal needs. In addition, we develop an annual Regional Tribal Operating Plan (RTOP). With strategic application of EPA's General Assistance Program grants (GAP) and State and Tribal Assistance Grants (STAG), 90% of tribes in the region are developing environmental programs and making progress toward the goals articulated in the RTOP. These priorities include improving operation and maintenance of tribal water systems; development of improved solid waste management programs, air programs, and tribal enforcement programs; and homeland security (see summaries of Goals 1 through 4 above).



Chapter Two

Goal Strategies

The following pages contain Region 9's strategies for achieving each of the five major goals presented in the US Environmental Protection Agency's 2003 Strategic Plan (Clean Air and Global Climate Change, Clean and Safe Water, Preserve and Restore Land, Healthy Communities and Ecosystems, and Compliance and Environmental Stewardship). These five national goals are further subdivided into Objectives, Sub-objectives, Targets, and Annual Performance Goals. However, for the purpose of developing multi-year Regional Strategic Plans, EPA headquarters has asked the regions to prepare strategies down to the Sub-objective level. A separate, subsequent process will be used to establish Regional contributions to National targets, and negotiate Annual Performance Goals. We anticipate that these numeric Annual Performance Goals, once established, will become an annual addendum to the Regional Strategic Plan.

Each goal strategy is presented in the following general format:

Goal

Objective

Sub-objective

Current Status

Strategy Highlights

Region 9's Proposed Measures of Progress *

Chart of the Strategies for this Sub-objective

* Region 9 is currently in the process of developing comprehensive Environmental Indicators for many regional programs. Where these have been developed, they are included in the Plan as "Measures of Progress." In future revisions of this Plan, the measures of Progress will be updated and expanded.



Goal 1 Clean Air and Global Climate Change

Protect and improve the air so it is healthy to breathe and risks to human health and the environment are reduced. Reduce greenhouse gas intensity by enhancing partnerships with businesses and other sectors.

Region 9's major environmental priority for our air program is to achieve the National Ambient Air Quality Standards (NAAQS) in our states and tribal lands. Major areas of concern include the San Joaquin Valley and the greater South Coast Air Basin (including the Los Angeles area) in California; the Phoenix area in Arizona; and the Las Vegas area in Nevada. Our efforts are complicated by large and growing populations, a wide range of active stakeholders, and a continual series of lawsuits. These challenges and unique conditions impede our progress, and stress our limited resources. In response, we must continue to broaden our skills and expand our efforts to engage effectively with our regulatory partners, tribal governments, local communities, and various stakeholders, to achieve the national goal. Note: Air Strategies for US-Mexico Border are discussed in Objective 4. Compliance Assurance Strategies for Air are discussed in Objective 5. Tribal Air Strategies are discussed in Objective 5.

Objective 1.1 Healthier Outdoor Air

Sub-objective 1.1.1 More People Breathing Cleaner Air

By 2010, working with our partners, we will improve air quality to healthy levels for 39% of people who live in areas where air does not meet new national standards for fine particles in 2001, and for 60% who live in areas not meeting new national standards for 8-hour ozone in 2001. While some areas may not reach attainment of these new standards because of air pollutant concentrations that sometimes exceed allowable levels, air quality will improve for an additional 27% of people who live in areas not meeting new 8-hour ozone standards in 2001. We will maintain attainment status for the 123.7 million people who had healthy air for criteria pollutants in 2001.

Current Status

Region 9 has some of the most serious air pollution problems in the country. We have thirteen areas in nonattainment for 1-hour ozone, twenty for particulate matter of 10 microns (PM-10), seven for sulfur dioxide (SO₂), and three for carbon monoxide (CO). Based on projections, we also will have large areas designated as nonattainment for the new 8-hour ozone and PM 2.5 standards. In fact, most of the population in Region 9 will live in nonattainment areas for one or both of these



pollutants. Addressing these extensive air pollution problems will require more resources and different strategic approaches, particularly in the areas of planning and technical support. It is imperative that we provide adequate levels of assistance to state, tribal, and local governments as we work together to develop and implement clean air strategies.

Geographic Priorities

Arizona: Arizona has made substantial progress toward cleaner air over the past several years. We are working toward attainment redesignations in many areas for sulfur dioxide, PM-10, ozone and carbon monoxide. We expect to redesignate the Phoenix area to attainment for CO and 1-hour ozone in FY 2004, and complete final action on the revised cleaner burning gasoline rules which are a major control measure. While the State is projecting attainment of the new PM 2.5 standard, PM-10 is a continuing problem in Phoenix and elsewhere in the State, and for tribal lands. It also appears that the Phoenix metropolitan area will not meet the new 8-hour ozone standard. Arizona will submit a regional haze plan to address visibility in three of its Class I areas on the Colorado Plateau by December 2003.

California: While air quality in California has steadily improved over the last twenty years, we still have much work to do in reducing levels of particulate matter and ozone in southern and central California, and ozone in the San Francisco Bay Area. Across the country over 65 million people live in areas that will exceed the new PM 2.5 standard, one-third of them live in California. Under the new standards, we anticipate designating 28 counties as nonattainment for 8-hour ozone and 14 counties as nonattainment for PM2.5. Making progress on these issues involves working with numerous regulatory partners, tribal governments, and stakeholders in a highly complicated and evolving process to negotiate reasonable solutions to these serious environmental problems.

- *South Coast:* Air quality is still among the worst in the country for ozone, carbon monoxide and PM-10. The South Coast is in extreme nonattainment for 1-hour ozone, serious nonattainment for PM-10 and serious nonattainment for carbon monoxide.
- *San Joaquin Valley:* EPA has designated the San Joaquin Valley in central California, as in extreme nonattainment for 1-hour ozone. This redesignation makes the San Joaquin Valley only the second such area in the country to receive a classification of extreme nonattainment. The San Joaquin Valley also has some of the highest projected levels of pollution for the new 8-hour ozone and PM 2.5 standards.
- *San Francisco Bay Area:* The Bay Area is in nonattainment for ozone without classification, and has an ozone attainment plan pending EPA action.

Nevada: Nevada has made substantial progress with respect to clean air over the past several years.

- *Las Vegas:* The Las Vegas Valley in Clark County is currently designated as serious nonattainment for CO, but has had clean data for a number of years. We



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anticipate that Clark County will submit a new CO maintenance plan and a redesignation request for attainment during FY 2004. While the Las Vegas area is currently in serious nonattainment for PM-10, we expect to approve a PM-10 plan which contains control measures to bring the area into compliance in the future. Regarding the new 8-hour ozone standard, Las Vegas Valley is the only portion of the state that may not meet the new standard when three years of data are included.

- *Reno:* The Reno Planning Area in Washoe County is currently designated serious for PM-10, but has had clean data for both the annual and 24-hour PM-10 standards during the period 2000-2002. Washoe County will develop a maintenance plan and redesignation request to attainment for PM-10 in the Reno Planning Area. Washoe County also has clean data for the 1-hour ozone and CO standards for which we also anticipate receiving attainment requests in FY 2004.

Hawaii: Hawaii is in attainment for all NAAQS. A periodic and localized air issue is the risk of particulate matter from volcanic emissions which affects portions of the big island.

Tribes: One-third of the 146 tribes in Region 9 are located in areas that do not meet NAAQS, mostly due to the transport of air pollution from sources in nearby urban areas. We are assisting tribes in assessing and understanding the quality of their air quality, and in building their capacity to participate in the decisions that affect their air. We are committed to consulting effectively with tribes on air quality issues and exercising our federal Trust responsibilities. Given the limited availability of tribal funds for air programs, we award grants based on environmental and health risks as well as the need to build capacity to address air issues of concern.

Major Regional Challenges

California: San Joaquin Valley and Agriculture Sources. Solving the air quality problems in the San Joaquin Valley is a major challenge due to its unique geography, meteorology and types of air pollution sources combined with a large and growing population. The Valley is a huge area of central California surrounded on three sides by mountain ranges. During the hot summers, transported pollutants are mixed with the pollution from the Valley's 3.2 million residents, 25,000 farms, and oil and gas industries to form ozone. In the winter, the stagnant, inverted air consisting of fine particle pollution from nitrogen oxides (NOx), volatile organic compounds (VOCs), and crustal materials, persists for months. The solutions to these air quality problems are difficult. More and more people are moving into the Valley only to commute long distances to their jobs in the San Francisco Bay Area where affordable housing is scarce. Mobile sources are the single largest source of ozone and PM. Agriculture also is a significant contributor to the pollutants that form ozone and particles, but controlling pollution from farms, dairies, and concentrated animal feed lots is a challenge. With the agricultural industry the focus of a number of recent lawsuits over air quality, regulatory agencies are emphasizing innovative and flexible programs to reduce pollutants from this nontraditional source.



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California: South Coast Federal Measures. EPA Region 9 recognizes the need to demonstrate a strong commitment in policy and funding to reduce federally-controlled emissions from ships, trains and planes. We have identified numerous cooperative and voluntary pilot projects including designating a low-sulfur fuel corridor on the West Coast and reducing emissions from airport ground service equipment. These measures would not only reduce smog, but lower levels of air toxics as well.

Arizona PM-10: A major challenge in Arizona is meeting the PM-10 standards. The drought in the Southwest is causing sporadic exceedences of the PM-10 standard at different locations throughout the State, and each exceedence requires a unique response. Consequently, we are working with a variety of communities and political entities, including the Navajo Nation, to resolve the PM-10 exceedences. While some areas of the State are not meeting the PM-10 standard, other areas have come back into attainment. We will move forward on redesignation requests for these areas. The Tucson area for example, which has developed a Natural Events Action Plan (NEAP) in response to its PM-10 exceedences, is now back in attainment. In the Phoenix area, we will respond to the decision from the Ninth Circuit Court on the adequacy of the Phoenix PM-10 Plan, and act on the SIP submittal addressing the Salt River SIP Call, a subpart of the Phoenix area PM-10 plan.

Nevada PM-10: Our biggest challenge in Nevada is meeting PM-10 standards. Although Clark County has developed a PM-10 plan for the Las Vegas Valley, careful implementation of the control measures together with a strong compliance assistance and enforcement program are necessary to make progress toward cleaner air and ultimately attainment. Two other areas in Southern Nevada are currently nonattainment for PM-10. These areas are the Apex Valley, northeast of Las Vegas, and the Pahrump Valley, west of Las Vegas. We are working with state and local authorities on control strategies for both areas.

US-Mexico Border Transport: Our proximity to the Mexican Border presents a number of trans-boundary air quality challenges. Many border area residents, especially those in heavily populated urban areas, are exposed to health-threatening levels of air pollutants including ozone, particulate matter, carbon monoxide, sulfur dioxide, and air toxics. Visibility impairment exists in most of the Class 1 areas along the border. Accurate evaluation of air quality in the border will allow both countries to successfully target controls and reduce levels of air pollutants.

Litigation, State/Tribal and Local Government Structure, and Large SIP Backlog: Transaction costs in Region 9 are disproportionately high due to a high rate of litigation. This is compounded by the large number of independent air district jurisdictions (45, 35 of which are in California), nearly three times as many as any other regional office, and the large number of tribal governments located in nonattainment areas (more than any other region in the nation). Fulfilling our requirements for government-to-government consultation with tribes creates an



additional challenge. The large backlog of EPA actions on state submitted plans undermines our efforts to work in a timely fashion with our state and district partners. While we have reduced the backlog by half since 1998, we continue to have about 600 individual State Implementation Plans (SIPs) in the backlog which require extra resources and undermines our ability to achieve air quality goals.

Strategy Highlights

Region 9's strategy for clean air and clear skies is to use a combination of innovative approaches, voluntary programs, and traditional tools based on strong science to achieve environmental results. Our regulatory strategy is to provide oversight, meet our trust responsibilities to tribes, and assist our partners to maintain air quality in attainment areas and improve it in nonattainment areas. Our enforcement strategy targets significant environmental and noncompliance problems using outreach, compliance assistance, and enforcement actions to achieve improved compliance rates and a level playing field for sources (See Goal 5). We will participate in national enforcement initiatives such as compliance with Prevention of Significant Deterioration, and New Source Review at coal-fired power plants and refineries. We support the Clear Skies initiative to reduce SO₂, NO_x and mercury. Our Title V and New Source Review (NSR) programs will continue to focus on areas of poor air quality, with an emphasis on Title V permitting of agricultural sources. All tribes affected by air pollution will be involved in decisions that affect them in a manner consistent with the US EPA Indian Policy and EPA's Trust responsibility, and will be involved in decisions affecting them for accessing funding, and improving air quality on tribal lands.

Region 9's Proposed Measures of Progress

- Number of areas not attaining NAAQS for Particulate, Carbon Monoxide, SO₂, Pb
- Number of people affected by exposure in nonattainment areas
- Number of areas/acres of forests affected by exposure to ozone
- Number of Parks with impaired visibility -- Region 9 Class 1 areas
- Number of people affected by impaired visibility
- Number of air monitoring projects started, collecting data, and improvements shown for Border and Tribes
- Number of people affected by unhealthy ozone NAAQS



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Sub-objective 1.1.1 More People Breathing Cleaner Air

| <i>Strategies</i> | <i>Programs and Tools</i> |
|---|---|
| Provide coordinated road map for given area's efforts to achieve clean air, including air pollution control measures, air quality monitoring requirements, and enforcement mechanisms | <ul style="list-style-type: none"> • Submit State Implementation Plans (SIPs) and revisions, based on attainment/nonattainment status (State, Local Agencies) Tribes have the option to submit TIP • Region 9 approves plans, coordinating with government, environmental, community and industry stakeholders • Region 9 continues efforts to improve up-front coordination with state and local agencies on SIP development, and to provide timely action on SIP submittals. • Region 9 near term focus: San Joaquin Valley PM10 and Ozone, Bay Area Ozone, South Coast Ozone, Phoenix CO and ozone, and Clark County, Nevada CO and PM10 SIPs. |
| Accurately designate attainment status of each geographic area, for each criteria pollutant | <p>Region 9 assists States, Tribes, Local Agencies in development of redesignation proposals, and acts on those when received:</p> <ul style="list-style-type: none"> • e.g., San Manuel, Douglas, Miami and Hayden (AZ S02), Paul Spur and Ajo (AZ PM-10); San Joaquin Valley ozone designation; South Coast nonattainment area boundary definition; Washoe County redesignation (NV PM-10, CO, 1-hour ozone), Parhump (NV PM-10) |
| Ensure effectiveness of Title V Permit program | <ul style="list-style-type: none"> • Perform Title V program evaluations in selected areas with multiple Title V sources • Assist non-federal permitting authorities to meet permit deadlines • Implement settlement agreement related to CA agricultural exemption • Transfer Title V program to Pacific Islands, Navajo Nation, and others as appropriate |
| New Source Review (NSR) Reform | <ul style="list-style-type: none"> • Work to return Title V program to CA districts • Reduce SIP backlog by acting on NSR rule submittals |
| Prevention of Significant Deterioration (PSD) Permits | <ul style="list-style-type: none"> • Issue PSD permits • Do applicability determinations • Re-delegate PSD program where possible |
| Promptly act on proposed rules | <ul style="list-style-type: none"> • Work with San Joaquin Valley to develop approvable BACM measures for all significant PM-10 source categories • Finalize innovative reactivity element of CA's consumer products program • Reduce the backlog of SIP submittals |
| Provide high quality technical support to achieve emission reductions in criteria pollutants and air toxics | <ul style="list-style-type: none"> • Work with state and local agencies to develop community assessment monitoring projects • Provide monitoring network assessments and data analysis • Assist in evaluating monitoring methods. • Ensure agencies complete criteria pollutant and toxics emission inventories • Evaluate state designations utilizing these inventories and other information • Assist states and locals in designing and evaluating air modeling efforts • Ensure air quality data management systems are properly maintained and populated |
| Serve as advocate for regional, state, tribal, local needs at national level | <ul style="list-style-type: none"> • Work with US EPA headquarters to communicate CA's need for control of national and international sources of air pollution |



Sub-objective 1.1.2

Reduced Risk from Toxic Air Pollutants

By 2010, reduce air toxics emissions and implement area-specific approaches to reduce the risk to public health and the environment from toxic air pollutants.

Current Status

The Clean Air Act requires EPA to control 188 toxic air pollutants. Since 1990, the Agency has issued rules covering over 80 categories of major industrial sources such as chemical plants, oil refineries, and aerospace manufacturers as well as smaller sources such as dry cleaners and chromium electroplating facilities. In addition, tighter national emission standards for new diesel engines and diesel fuels are helping to gradually reduce the significant contributions to ozone and particulate pollution emissions from these major sources. We are providing technical assistance to our state, tribal and local governments as these toxics standards are implemented.

Strategy Highlights

In the past year, we have redirected our air toxics efforts away from the individual industry standards to a Comprehensive Community Air Toxics Initiative focusing on six urban environmental justice areas with extensive air toxics. The goal is to achieve air toxics emission reductions by involving the local citizens in a community-based approach as outlined in the EPA Urban Air Toxics Strategy. Region 9 has established six air toxics pilot projects which are cooperative efforts between EPA, states and communities in environmental justice areas. These areas are Clark County, NV; South Phoenix, AZ; West Oakland, CA; Los Angeles Airport and Port of Los Angeles/Gateway Cities, CA; and Pearl City, HI.

Region 9's Proposed Indicators of Progress

- Number of community based air toxics pilot projects started
- Number of air toxics mitigation plans developed
- Number of air toxics mitigation plans being implemented, with data showing reduction of air toxics at the local level
- NATA data map for Region 9 showing risk levels by State and County



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***Sub-objective 1.1.2
Reduced Risk from Toxic Air Pollutants***

| <i>Strategies</i> | <i>Programs and Tools</i> |
|--|---|
| Achieve air toxics reductions by involving local citizens in community based effort | <ul style="list-style-type: none"> • Develop comprehensive Community Air Toxics Initiative as outlined in EPA Urban Air Toxics Strategy |
| Work with individual communities on tailored pilot initiatives to reduce toxics | <ul style="list-style-type: none"> • West Oakland, CA: stakeholder process to reduce emissions; diesel truck mitigation • S. Phoenix, AZ: multi-media initiative will identify toxic hot spots for reduction. AZDEQ and Gila River Indian Community involvement • Clark County, NV: develop emission inventory and monitoring • San Joaquin Valley, CA: reduce diesel PM, ozone, PM2.5 and PM10 through community-based voluntary projects. • Pearl City, HI: HI DOH will conduct emission inventory and evaluate monitoring; consider toxics reduction approaches • Los Angeles, CA Airport: aircraft emission study by ORD and peer reviews of LA World Airports study workplan • Gateway Project, CA: diesel retrofit • Bayview/Hunters Point, CA: community air monitoring project by City of San Francisco, with state, EPA, and stakeholders • Los Angeles, CA: air toxics assessment of Alameda Corridor and followup |
| Encourage continued reductions in diesel emissions, particularly in States such as California, where diesel engines represent major emission sources | <ul style="list-style-type: none"> • Develop "beyond the SIP" diesel mitigation strategy and strengthen partnerships among federal, state, local agencies, and community |
| Determine long-term air toxics emission trends | <ul style="list-style-type: none"> • Assist state/local agencies in collection and analysis of data • Assist EPA HQ in implementing 2004 toxics monitoring program |
| Encourage local agency air toxics program delegation; implementation | <ul style="list-style-type: none"> • Assist states/locals in delegation of national MACT standards • Ensure MACT standards are properly incorporated in Title V permits |



Objective 1.2 Healthier Indoor Air

By 2008, 22.6 million more Americans than in 1994 will experience healthier indoor air in homes, schools, and office buildings

Current Status

Poor indoor air quality affects the health and productivity of students and school staff. Asthma, which may be exacerbated or triggered by both chemical and biological indoor air pollutants, is reaching epidemic proportions and is responsible for 10 million lost school days a year nationwide. At Children's Hospital in California's Central Valley, the number of children visiting the Emergency Room for asthma-triggered problems increased from 6000 in 1997 to 11,000 in 2001. The reported number of asthma cases and other respiratory illnesses is increasing. (See also Chapter 3 on Sensitive Populations). The radon program is a mature program that has evolved to primarily provide grant funds to our states and tribes. Our highest priorities for radon are in Guam and California, where radon detections are somewhat more elevated than in our other states. We have fewer resources dedicated to other states.

Strategy Highlights

Region 9's primary strategy to improve indoor air is providing grant funds to organizations. We award competitive grants to organizations to implement Indoor Air Quality Tools for Schools, and Open Airways (an in-school program to teach children how to manage asthma). The focus of our efforts is to reduce risk to the public from indoor air pollutants by educating the public on the importance of healthy indoor air quality and to reduce asthma triggers in the schools. Given the educational budget crisis, staff will need to adopt new strategies to promote Tools for Schools in ways that can be replicated and transferred cost-efficiently. Region 9 also awards Indoor Radon Grants to California, Nevada, Arizona, Guam and several tribes and tribal organizations. Our partners are educating the public and other health organizations on health risks of radon.

Region 9's Proposed Indicators of Progress

- Number of schools/kids implementing the Tools for Schools program, with data showing healthier indoor air
- Number of students participating in the "Open Airways Asthma Management" program
- Region 9 schools which have learned about the "IAQ Tools for Schools" program and have taken steps to improve indoor air quality in their school buildings (non-implementing)

Objective 1.2 **Healthier Indoor Air**



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| <i>Strategies</i> | <i>Programs and Tools</i> |
|---|---|
| Reduce risk from indoor air pollutants through educating public and reducing asthma triggers in homes and schools | <ul style="list-style-type: none"> • Promote Tools for Schools program through award of grants, and work with individual school districts • Develop specialized presentations and outreach materials • Develop partnerships with influential schools and organizations • Assist school districts in working cooperatively with their communities • Offer mentor programs and enable student-led projects |
| Teach school children how to manage asthma | <ul style="list-style-type: none"> • Award grants through the Open Airways program -- grantees will provide in-school training on asthma management |
| Reduce risk from radon through education of public and health organizations | <ul style="list-style-type: none"> • Administer State and Tribal Indoor Radon Grants Program -- grantees will develop programs to increase awareness, radon testing, and mitigation based on their state or tribal priorities |

Objective 1.3 Protect the Ozone Layer

By 2010, through worldwide action, ozone concentrations in the stratosphere will have stopped declining and slowly begun the process of recovery, and the risk to human health from overexposure to ultraviolet radiation, particularly among susceptible sub-populations such as children, will be reduced.

Current Status

Region 9 currently implements a stratospheric ozone program under a "three pronged attack" of outreach, compliance assistance, and limited enforcement activities. Our goal is to provide the public with a better understanding of ozone depletion and its effects on the environment and human health and to obtain a higher rate of compliance among the regulated community.

Strategy Highlights

In our outreach efforts, we will promote the Sun Wise Program through school and community events to educate communities about the effects of exposure to ultraviolet radiation and to encourage prevention methods. In our compliance assistance efforts, we will select two environmental justice geographic areas to do onsite visits and/or mailings to share current regulatory information with the affected businesses. We plan to do a joint compliance assistance initiative with the regional Compliance Assistance Office to provide multi-media guidance to the auto wreckers/salvage yards. Our enforcement efforts are limited by the availability of inspectors who will target only urgent cases. We will respond to requests for



information from the regulated community, other governmental agencies, and the public.

Objective 1.4 Radiation

Sub-objective 1.4.1 Enhance Radiation Protection

Through 2008, protect public health and the environment from unwanted releases of EPA-regulated radioactive waste and minimize impacts to public health from radiation exposure. By 2008, increase the total number of drums of radioactive waste certified by EPA as properly disposed to 140,171 from 47,171 in 2003.

Sub-objective 1.4.2 Maintaining Emergency Response Readiness

By 2008, ensure Agency readiness to inform the public about and protect them from airborne releases of radiation. By 2008, 80% of EPA's 33-person Radiation Emergency Response Team will meet scenario-based response criteria, up from 50% in 2005. By 2008, EPA's National Radiation Monitoring System will cover 70% of the US population

Current Status

The goal of our Radiation Program is to protect human health and the environment from harmful levels of ionizing radiation, to provide information about ionizing radiation to the public, and to provide radiological technical support to other regional offices, agencies, and states. Our main priorities are to implement the radionuclide NESHAP standards, ensuring facilities are in compliance with these standards and reporting and monitoring requirements. In addition, we provide technical support to HQ for development of radioactive waste standards, and participate in emergency response exercises at nuclear power plants.

Strategy Highlights

We will implement the new NESHAP standard for sampling and reporting radionuclide emissions by conducting inspections of federal facilities and others, and reviewing reports to determine if they are meeting the requirements of 40 CFR part 61. We will participate in developing national regulatory standards for clean up and disposal of radioactive waste in partnership with the Office of Radiation and Indoor Air. We also will provide technical assistance for radioactive contaminated sites including those at Johnston Atoll and Santa Susana, and will follow activities at Yucca Mountain. We will participate in radiation emergency response exercises including an annual 5-day emergency response exercise at the San Onofre Nuclear Generating Station



Objective 1.5 Reduce Greenhouse Gas Intensity

Through voluntary climate programs, contribute 45 million metric tons of carbon equivalent annually to the President's 18% greenhouse gas intensity improvement goal by 2012.

Current Status

Rapid population expansion in key geographic areas (Clark County, Nevada; Phoenix, Arizona and throughout California) has created an increasing demand for energy throughout Region 9.

Strategy Highlights

Addressing atmospheric change through encouraging energy conservation, energy efficiency and pursuing development of renewable energy resources is a priority for our Region. Our top priorities are to implement the San Joaquin Valley Energy Efficiency/Renewable Energy (SJV EE/RE) Air Strategy, and to maintain a presence in Energy Star outreach. The SJV EE/RE Air Strategy provides a method to address air emissions from energy production in the SJV through the application of energy efficiency and renewable energy technologies. We also will continue to provide information and materials to the public and other stakeholders regarding global climate change and our programs.

Region 9's Proposed Measure of Progress

- Number of areas not attaining the CO NAAQS. Number of people affected in these areas.



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Objective 1.5
Reduce Greenhouse Gas Intensity

| <i>Strategy</i> | <i>Programs and Tools</i> |
|--|---|
| Working with partners, encourage voluntary energy conservation, energy efficiency, and development of renewable energy | <ul style="list-style-type: none">• Implement DOE/EPA Framework for Cooperation• Implement SJV EE/RE Air Strategy• Work with Las Vegas casinos to promote solar energy project and other efficiency programs• Recruit construction industry partners to implement Energy Star Buildings Program (efficient ventilation, heating, A/C, etc)• Recruit partners to Commuter Choice and Smartway programs• Promote Energy Star commercial and residential technologies (fax machines, copiers, lighting, etc.)• Participate in energy fairs and conferences and develop media announcements• Work with Intertribal Council of AZ to provide technical assistance to tribes and develop pamphlets for tribal outreach |



Goal 2 Clean and Safe Water

Ensure drinking water is safe. Restore and maintain ocean, watersheds, and aquatic ecosystems to protect human health, support economic and recreational activities, and provide healthy habitat for fish, plants, and wildlife.

Although every strategic program measure developed by the US EPA headquarters, Office of Water (OW) is not explicitly discussed in this Plan, Region 9's Water Division will ensure that all National Strategic Planning measures pursuant to both Goal 2 and Goal 4 are incorporated into annual management agreements with the OW. One of our biggest challenges in achieving improved water quality and the provision of safe drinking water in Region 9 will be determining where we can fill gaps in delegated state programs, given the 20-40% budget shortfalls which our states are currently experiencing. The impacts on California and Arizona have been most severe. From a Clean Water Act perspective, there will be diminished state capacity in areas such as monitoring and Total Maximum Daily Loads (TMDL) preparation, two key building blocks in efforts to improve surface water quality. Under the Safe Drinking Water Act (SDWA), states have identified an increasing gap between available funds and funds necessary for implementing new priority drinking water requirements, and operation of data systems.

Ensuring access to safe, healthy water for underserved tribes and territories remains a critical priority for Region 9. It is estimated that 68,000 tribal homes lack access to safe drinking water. Nearly 7% of Tribal homes in the US continue to lack running water, a figure that is 14 times higher than the national non-Indian average.

Note:

Water strategies for US/Mexico Border are discussed in Objective 4

Water strategies for ecosystems are discussed under Objective 4

Water strategies for wetlands are discussed under Objective 4

Compliance Assurance Strategies for Water are discussed under Objective 5

Water Strategies for Tribes are discussed under Objective



Objective 2.1 Protect Human Health

Sub-objective 2.1.1 Water Safe to Drink

By 2008, 95% of the population served by community water systems will receive drinking water that meets all applicable health-based drinking-water standards through effective treatment and source water protection.

Current Status

By 2004, we anticipate that 92% of Public Water Supply Systems will have no violations of federal health-based drinking water standards which were in place by 1994. Meeting the Agency's 2008 goal of 95% compliance with 2001 standards is more uncertain, due to significant strain on the resources of Region 9, our states, tribes, territories and the drinking water utilities, and impacts of recent homeland security responsibilities. This situation will continue as new federal rules and regulations are promulgated. Four new federal rules are expected to be proposed in the next two years. Our ability to meet the 95% compliance goal by 2008 is further dependent upon reliable and accurate data reporting by states and others. Lack of certainty in data reporting, coupled with persistent data management problems, have impeded past efforts to accurately characterize the universe of noncompliance in some geographic areas.

Arsenic: Under current conditions, 30% of water systems in Arizona, California and Nevada, will need additional treatment to meet the new arsenic drinking water standard. This is largely due to naturally-occurring arsenic.

Perchlorate: Contamination of domestic drinking water supplies with perchlorate affects over 12 million people in Region 9. In our three mainland states, nearly 90 public water supply systems have elevated perchlorate levels. With EPA's perchlorate toxicity studies still incomplete, these three states have established three different perchlorate drinking water action levels. All three states draw drinking water from the same perchlorate-contaminated source, the Colorado River.

Tribes: In Region 9 alone, an estimated 68,000 Tribal homes lack access to safe drinking water (including 40% of the families on the Navajo Nation that must haul or otherwise obtain their drinking water from unregulated sources), and there is only a 50% certainty that a tap turned on in a Tribal home has consistently produced water that has been in compliance with bacteriological monitoring and testing requirements under the SDWA. Significant funding increases will be needed to ensure that tribal communities have access to safe drinking water and adequate sanitary facilities, in order to meet the 2008 national goal of 95% of the populations served by community water systems in Indian Country receiving drinking water meeting all applicable health-based drinking water standards.



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Pacific Islands: According to 2000 Census statistics, Pacific Island residents (ranging from 8% on Guam to 40% on American Samoa) do not have access to adequate plumbing; these conditions are 6.5 to 32 times higher than the national average of 1.2%. Even where homes have plumbing, the public water utilities which serve the majority of the population have frequent problems providing adequate quality water. The situation is most dire on Guam, where system breakdowns have resulted in sewage contamination of drinking water distribution systems, and island-wide boil water notices, affecting 100% of the population, were in effect for extended periods during 2002 due to fecal coliform contamination. For the Pacific Islands, at current funding levels, only 35% (vs the goal of 95%) of the population will meet sub-objective 2.1.1 by 2008. Each of the 50 states receives several times more funding than all the Pacific Island territories combined. This occurs because each state is guaranteed at least 1% of the Drinking Water State Revolving Fund (DWSRF). In FY 2001, this amounted to at least \$7.7 million for the smallest states, compared to \$193,000, \$465,000, and \$674,000 for American Samoa, CNMI and Guam respectively.

Hawaii Cesspools: Drinking water sources especially vulnerable to contamination exist in Hawaii, where cesspools are used extensively for decentralized wastewater disposal. These cesspools are known to result in raw sewage impacts on groundwater and coastal waters. It has been estimated that there are as many as 500 large capacity cesspools in the State. Large capacity cesspools are banned by Underground Injection Control (UIC) regulations and must be closed over the next 2-3 years. We are dedicating resources for technical and financial assistance to replace these systems.

Strategy Highlights

We will make progress toward the 2008 targets through system assessments and extensive training. We will make strategic use of the DWSRF to support capital improvements to drinking water systems, working towards achieving strategic planning targets for return on investment (\$1.70 by 2008), and utilization rate (86% by 2008).

High-quality information is needed to support the effective implementation of drinking-water standards. The Safe Drinking Water Information System serves as the primary source of national information on compliance with all Safe Drinking Water Act requirements, and is a critical database for program management. EPA will work to ensure that all applicable drinking-water regulatory requirements are incorporated into this new data system to help states and authorized tribes manage their drinking-water programs. EPA will also continue to work with states and tribes to improve data completeness, accuracy, timeliness, and consistency.

Region 9's Proposed Measures of Progress

- Number and/or percent of population served by community water systems receiving drinking water that meets all applicable health-based drinking water standards



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- Number and/or percent of population in Indian Country served by community water systems receiving drinking water that meets all applicable health-based drinking water standards (see Goal 5)
- Number and/or percent of population in Pacific Islands served by community water systems meeting all applicable health-based standards (see Goal 4).

***Sub-objective 2.1.1
Water Safe to Drink***

| <i>Strategies</i> | <i>Programs and Tools</i> |
|---|--|
| By 2008, 95% of population will receive drinking water that meets all applicable (as of 12/01) health-based drinking water standards | <ul style="list-style-type: none"> • Conduct regulatory workshops • Provide technical assistance via groups such as Rural Community Assistance Corporation • Conduct sanitary surveys every three years • Assure efficient use of DWSRF • Utilize source water protection programs, UIC program • Improve data collection and tracking |
| By 2008, 95% of population served by water systems in Indian country will receive drinking water that meets all applicable (as of 12/01) health-based drinking water standards. | <ul style="list-style-type: none"> • Provide tribal system operator training regulatory workshops, sanitary surveys • Evaluate options for addressing tribal drinking water shortfalls utilizing ongoing Navajo Nation drinking water study • Provide arsenic sampling for all tribal water systems • Provide funding through SDWA tribal set asides and PWS capacity grants for treatment facilities, feasibility studies, infrastructure assessments and inventory, vulnerability assessments, source water protection, the UIC program and improved data collection and tracking. |

***Sub-objective 2.1.2
Fish and Shellfish Safe to Eat***

By 2008, improve the quality of water and sediments to allow increased consumption of fish and shellfish.

Current Status

Pursuant to our OW Agreement, all four of our States are monitoring and conducting assessments based on national guidance to establish nationally consistent fish advisories. Fish consumption by minority populations and/or Tribal communities is problematic in several areas: San Francisco Bay and Delta (mercury, PCBs, dioxin), Los Angeles (DDT); Arizona (mercury, DDT, chlordane); Nevada (mercury); Guam (DDT, Chlordane); and inland streams of Hawaii (DDT, chlordane).

Strategy Highlights

We are working with state and local organizations to post multilingual signs near the San Francisco and Santa Monica Bays to identifying measures to address



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sources of contamination in areas with fish consumption advisories, and to continue development of TMDLs. Also, in FY 2004, we will continue to participate in partnerships with local and state agencies in assessing dioxin in fish and shellfish in San Francisco Bay. This will include collaborating with the San Francisco Estuary Institute's efforts in developing a conceptual model for dioxin fate and transport in the Bay, and with the Air programs in evaluating California Air Resources Board dioxin data.

Sub-objective 2.1.3 ***Water Safe for Swimming***

By 2008, restore water quality to allow swimming in not less than 5% of the stream miles and lake acres identified by states in 2000 as having water quality unsafe for swimming.

Current Condition

Our focus within this sub-objective is on coastal beaches. Southern California has the highest number of beach user days in the nation, greater than all other beaches combined. California, Hawaii, American Samoa, Guam and CNMI all have monitoring and notification programs under the BEACH Act requirements. In California, 5000 beach closures were reported in FY 2002, an apparent increasing trend for the past three years, which may be a result of increased monitoring efforts. Many beach closures are also reported in Guam.

Strategy Highlights

Our objective is to achieve continually increasing safety for those swimming at coastal beaches through states' and tribes' monitoring efforts and targeted actions to address sources of poor coastal water quality.

Region 9's Proposed Measure of Progress

- Number and/or percent of beaches monitored by State beach safety programs open and safe for swimming



***Sub-objective 2.1.2
Fish and Shellfish Safe to Eat***

***Sub-objective 2.1.3
Water Safe for Swimming***

| <i>Strategy</i> | <i>Programs and Tools</i> |
|--|--|
| By 2008, coastal beaches monitored by beach safety programs will be open and safe for swimming over 96% of days during beach season. | <ul style="list-style-type: none"> • Monitoring programs under the BEACH Act • Pathogen TMDLs for coastal areas • Target SSO and stormwater compliance in coastal areas • Develop new bacteria standards |

**Objective 2.2
Protect Water Quality**

***Sub-objective 2.2.1
Improve Water Quality on a Watershed Basis***

By 2008, use both pollution prevention and restoration approaches so that:

- *In 600 of the Nation's watersheds, water quality standards are met in at least 80% of the assessed water segments.*
- *In 200 watersheds, all assessed water segments maintain their quality, and at least 20% show improvement above 2002 conditions.*

Current Status

Monitoring: Surface water monitoring varies widely among our four states and three Pacific Islands. None of the States or Islands currently has monitoring strategies incorporating all 10 elements of the OW guidance, which is to be implemented by 2005. According to the 2002 305(b) water quality assessment reports from the States, the percent of surface streams assessed that are impaired are 14% for AZ, 84% for CA, 64% for HI, and 48% for NV. However, only a small portion of the total stream miles is actually monitored or evaluated to date (2% for AZ, 15% for CA, an unknown percentage for HI, and 2% for NV). The small portion of total waters assessed to date makes it difficult to confirm the condition of our Region's waters. Approximately 20 Region 9 Tribes provide monitoring data to EPA in 305(b) reports. As Tribal programs develop, we expect to gain a more extensive picture of Tribal water quality.

TMDLs: Based on 2002 303(d) lists, 2,584 pollutant/waterbody combinations require TMDLs in Region 9. As of the end of FY 2003, 410 TMDLs have been completed. Among our biggest challenges for TMDL development are the TMDLs in the Los Angeles area with associated impacts on municipal stormwater water permits. While we are focusing on watersheds across the Region in the development of TMDLs, the Los Angeles metropolitan area has the Region's biggest population, a large number of impacted municipalities, and coastal water quality impairments.



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State budget shortfalls and resultant staff shortages, particularly acute in California, will directly impact TMDL completion.

Permitting: Region 9 and states have made considerable progress in timely renewal and issuance of new NPDES permits, though a permitting backlog still exists (particularly in California). During FY 2004, we will strive to reach the national targets for point sources covered by current permits of 90% for major permittees, and 87% for minor permittees. We currently have over 20,000 storm water permittees. Region 9 states have already met the Strategic Plan 2008 goals for storm water permitting by issuing general Phase II permits for MS4s and construction sites. The Phase II storm water program will add more than 1000 small MS4's and thousands more small construction sites to state NPDES programs that are already overextended. We are concerned that inadequate resources will impede program implementation and compliance. Implementation of the new CAFO rule will be a significant challenge for our Region, as Region 9 has approximately 1800 CAFOs and 10% of the nation's dairies, the majority of which have been unpermitted. In California's Central Valley alone there are more than 1200 dairy facilities that will need to be permitted. There are also over 200 poultry CAFOs in the region (most in the Central Valley). Outreach to communities on the rule has raised numerous questions of interpretation of requirements, further complicated by air quality and air permitting issues.

Nonpoint Sources: Region 9 is currently utilizing nonpoint source funding to focus on project-specific watershed improvements via grants to state and tribal programs. Funding is targeted to implement projects based on watershed-based plans and TMDLs (completed or under development) that will achieve documented pollutant load reductions. California, American Samoa, and CNMI have approved Coastal Nonpoint Source Programs in place under CZARA. We are working with both Hawaii and Guam on their CZARA approvals. Efforts are ongoing with USDA NRCS offices and states to improve coordination of EQIP and Clean Water Act 319 funding.

Tribal Wastewater: The Indian Health Service reported in FY 2001 that over 36% of eligible homes located on Region 9 tribal lands lacked an adequate sewage disposal system.



Strategy Highlights

We will build on EMAP Western Pilot monitoring results to improve use of statistically-valid monitoring approaches, in order to improve state program monitoring coverage. We will continue to direct state grant funds towards contract support to improve outputs in areas such as permit renewal and TMDLs. On CAFOs, contract support will fund “no potential to discharge” criteria and a model permit for poultry operations. We will support Tribes in assessment and monitoring of Tribal waters and in development of Water Quality Standards and TMDLs. We’ll support watershed groups who are preparing “third party TMDLs”. We will work with States and Tribes in their review of beneficial use designations. In order to streamline standard reviews, we will use the database we have developed on threatened and endangered species and past Endangered Species Act consultations. We will continue to emphasize the funding of “expanded use” projects via the CWSRF. By 2008 we expect to provide adequate sanitary facilities for an additional 20,000 Tribal homes, using tools such as the CWA Tribal set aside. Over the next 5 years, EPA will assist states and tribes in significantly improving information concerning the condition of the Nation’s rivers, lakes, streams, wetlands, and ground water (to the extent possible). Specifically, EPA will work with other federal agencies, states, and tribes to adopt comprehensive monitoring strategies, addressing all the elements essential to an effective monitoring program, and statistically valid monitoring networks.

Region 9's Proposed Measure of Progress

- Miles and/or acres of water identified as not attaining water quality standards
 - Percent of rivers and streams that have been assessed
 - Of assessed waterbodies, percent that are impaired
- Number and/or percent of NPDES permits re-evaluated and considered current
- Number and/or percent of TMDLs required for waters currently on the 303(d) list
- Number and/or percent of households on tribal lands lacking access to basic sanitation (Indian Health Services data)
- Surface waters impaired by agriculture in California
- Number and percent of Pacific Island populations served by community systems receiving drinking water that meets all applicable drinking water standards



Sub-objective 2.2.1

Improve Water Quality on a Watershed Basis

| <i>Strategies</i> | <i>Programs and Tools</i> |
|---|---|
| By 2012, water quality standards are fully attained in over 25% miles/ acres of water identified in 2000 as not attaining standards with an interim milestone of restoring 5% of these waters by 2006 | <ul style="list-style-type: none"> • Review standards • Use statistically valid monitoring tools • Develop TMDLs • Incorporate TMDL implementation plans in permits • Direct CWSRF to non-point source and other expanded uses |
| Increased completion of TMDLs | <ul style="list-style-type: none"> • Support to state and tribal programs • Use of contract resources • Training for watershed groups preparing third party TMDLs |
| Ensure that 90% of all NPDES permits are current and, beginning in 2005, 95% of high priority permits are current | <ul style="list-style-type: none"> • Support for state programs • Direction of state and tribal grant funds to contractors to prepare permit renewals |
| By 2015, in coordination with other federal partners reduce, by 50% the number of households on tribal lands lacking access to basic sanitation | <ul style="list-style-type: none"> • Utilize Performance Partnership Agreements with Tribes to direct funds to wastewater systems • Work with Regional Tribal Operations Committee to focus on wastewater priorities |

Sub-objective 2.2.2

Improve Coastal and Ocean Waters

By 2008, prevent water pollution and protect coastal and ocean systems to improve national and regional coastal aquatic system health.

Current Status

We are actively involved in 3 regional coastal monitoring efforts (Southern California Bight, San Francisco Bay and Mamala Bay in Hawaii). These efforts have been integrated with coastal activities funded under the EMAP Western Pilot to provide the data for statewide assessments of coastal conditions. It is unlikely that either California or Hawaii will have the resources to fund continual statewide coastal assessments on their own. Monitoring of coastal conditions in the Pacific Islands is more limited and localized around NPDES dischargers and beaches.

One area where a long-term regional monitoring effort using the EMAP design and methods is sustained is the Southern California Bight. The multiple partnership of monitoring agencies (managed by the Southern California Coastal Water Research Project (SCCWRP)) completed in 2003, the sample collection for the third regional monitoring effort throughout the Bight. This sustained effort has grown from about 13 participating agencies in 1994 to about 80 today.

One of the most serious threats to certain aquatic ecosystems in our region,



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particularly in San Francisco Bay and Hawaii, is non-native invasive species. Although our regulatory tools are limited, in recent years, we have devoted grant funding to support minimization and control of non-native invasive species. This has included CWA 320 funds to the National Estuary Programs in San Francisco Bay, Morro Bay, and Santa Monica Bay; CWA 319 funds to States for various removal and education projects; state/local wetlands grants under CWA 104; and various tribal grants. Staff also routinely comment on Environmental Impact Statements and permit applications encouraging the use of native species. In FY04, Region 9 was awarded Regional Applied Research Effort (RARE) funding for a project entitled "Transport Pathways of Invasive Species across Pacific Estuaries," which will examine whether San Francisco Bay is acting as a local source for secondary invasion across pacific estuaries.

Strategy Highlights

Region 9 will attempt to augment State and tribal monitoring efforts with the EMAP data. We will continue to actively participate on the SCCWRP Commission and the Technical Advisory Committee for the Southern California Bight to help guide improvements to the regional monitoring program and other coastal research (i.e., sediment quality criteria development, comparable municipal wastewater discharge monitoring programs, etc.). We will continue compliance monitoring for the San Francisco Deep Ocean Disposal Site, mapping the physical locations of sea floor deposits resulting from dredged material disposal operations, and collecting samples for later chemical and benthic analysis. As noted under sub-objective 2.1.3, Region 9's coastal states are all utilizing BEACH Act funding to monitor coastal water quality.



Goal 3 Land Preservation and Restoration

Preserve and restore the land by using innovative waste management practices and cleaning up contaminated properties to reduce risks posed by releases of harmful substances.

Region 9's major priorities for Goal 3 are to complete construction of selected remedies at Superfund facilities and hazardous waste cleanup sites; prevent and control contamination of drinking water supplies from materials disposed to land; ensure Region 9's preparedness to respond to hazardous materials emergencies; assure safe management of hazardous wastes through compliance with waste management laws; assist tribes to improve their solid waste management practices, build regulatory capacity/infrastructure, close open dumps, and clean up leaking underground storage tanks on tribal properties; and conserve resources and energy through waste reduction, recycling and pollution prevention.

Note: Land Strategies for Mexico Border are discussed in Goal 4
Compliance Assurance Strategies for Land are discussed in Goal 5
Land Strategies for Tribes are discussed under Goal 5

Objective 3.1 Preserve Land

Sub-objective 3.1.1 Reduce Waste Generation and Increase Recycling

By 2008, reduce materials use through product and process redesign and increase materials and energy recovery from wastes otherwise requiring disposal.

Current Status

Region 9 has a long history of promoting resource conservation through emphasis on waste reduction, reuse, recycling and environmentally preferable purchasing programs. In recent years, EPA has worked with industry, government, and citizen partners to promote waste reduction in numerous industries, including the metals finishing, auto fleet maintenance, government, dry cleaning, and hospital sectors. We have leveraged our grant funds to actively promote recycling efforts in all our western states. In addition, we have taken a leadership role assisting OSWER with the Resource Conservation Challenge initiative, which strives to increase nationwide recycling rates to 35%, and reduce the use of 30 priority chemicals by 50% in coming years. Region 9 has already met the national recycling goal, with a current regional recycling rate of 56.4%. However, our states and tribes range widely in their recycling program development, which will influence our targeting of strategic planning efforts. In addition, management and regulation of waste disposal practices continue to present major challenges for the tribes in the Region. Tribal



communities must contend with illegal or “midnight dumping” by off-Reservation residents, out of compliance and unsafe landfills operated within Reservation boundaries, and the absence of adequate infrastructure to dispose of wastes. There are over 700 open dumps in Region 9 Indian Country, and 1 in 3 tribal homes still lacks adequate waste management infrastructure.

Strategy Highlights

In the short-term, Region 9 plans to focus waste reduction and conservation efforts on the following waste streams and sectors, which are significant in our Region: construction and demolition debris, electronics, green building, hospitals, government, federal facility purchasing, chemical reduction partnerships and foams and furniture treated with BFRs. We will also foster partnerships with stadiums and large entertainment venues, gold mines, the travel industry, affordable housing, and the television industry. New partners will be solicited and added to EPA’s voluntary solid waste reduction program, WasteWise. We will work closely with our state partners, assisting Hawaii in implementation of its new bottle bill, and increasing recycling rates in Nevada. We will also work with our tribal partners, in particular to continue closing open dumps in Indian country, and to assist tribal communities to improve their solid waste management practices and regulatory capacity/infrastructure. On a national level, we will continue working with OSWER to revise current RCRA regulations to enhance recycling opportunities. We will continue to promote and deepen our commitments under the Resource Conservation Challenge (RCC) and its clusters, creating and helping to meet waste reduction and pollution prevention goals across waste streams and product lines.

Region 9's Proposed Measures of Progress

- Pounds of solid waste generation for states and region
- Recycling rate of municipal solid waste for each state
- Number of open dumps and approved landfills on tribal land (Goal 5)



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Sub-objective 3.1.1

Reduce Waste Generation and Increase Recycling

| <i>Strategies</i> | <i>Programs and Tools</i> |
|--|---|
| Reduce waste, promote energy conservation and markets for recycled products in targeted sectors | <ul style="list-style-type: none"> • Establish new Industry or Sector partnerships to voluntarily reduce waste and conserve resources. Target industries include construction/demolition, electronics, hospitals, government, federal facility purchasing, foams/furniture treated with BFRs, stadiums, gold mines, travel, television • Continue to promote R9's existing sector efforts, recruit new members to EPA's WasteWise program • Support and assist States in promoting their waste reduction initiatives (including HI's bottle bill, state legislative proposals and sector partnerships and recycling in Nevada). • Support and assist tribes in promoting their waste reduction efforts • Participate in OSWER's Innovations Work Group, providing assistance to external parties to promote conservation • Recruit at least one company per state into National Waste Minimization voluntary reduction Program • Coordinate multi-media Green Building efforts • Develop and implement Resource Conservation Challenge and its clusters |
| Reduce regulatory barriers to recycling and resource conservation | <ul style="list-style-type: none"> • Assist OSWER in regulatory reviews as appropriate • Inform states, tribes of regulatory flexibility |
| Reduce waste generated by Region 9 | <ul style="list-style-type: none"> • Develop Environmental Management Strategies for Region 9 |
| Reduce environmental burden caused by federal sector purchases of electronics | <ul style="list-style-type: none"> • Provide leadership role and grant support for Federal Electronics Challenge with training, outreach |
| Improve solid waste management overall on tribal lands (Note: FYI. This is tracked under Goal 5) | <ul style="list-style-type: none"> • Provide STAG/GAP grants, technical assistance, circuit rider, training, outreach, education, partnerships to clean up and close dumps, develop solid waste management plans and waste disposal regulatory capacity/infrastructure • Improve recycling on tribal lands |
| Improve Solid Waste management in Pacific Islands | <ul style="list-style-type: none"> • Provide landfill operator training in coordination with Department of Interior and Army Corps of Engineers • Evaluate existing landfills for compliance and take appropriate actions to bring non-compliant facilities into compliance |



Sub-objective 3.1.2

Manage Hazardous Wastes and Petroleum Products Properly

By 2008, reduce releases to the environment by managing hazardous wastes and petroleum products properly.

Current Status

Hazardous Waste Program: The RCRA hazardous waste programs in Region 9 have been authorized to each of our primary states (AZ, NV, HI, and CA), with primary implementation performed by state agencies. These states have made significant progress in ensuring that hazardous wastes generated, treated, stored or disposed of in the Pacific Southwest are safely managed. EPA provides oversight and grant assistance to these state programs. In addition, Region 9 takes the lead in issuing selected permits. Region 9 has already met the 2005 national goal of 81% of our RCRA baseline facilities having approved controls in place. However, it is unlikely we can meet the 2008 national target of having 95% of our RCRA baseline facilities with controls in place, due to the complexity of the post-closure and open-burn/open-detonation (OBOD) facilities we have in Region 9, as well as conflicting priorities of our authorized states (budget deficits, staff reductions, and reallocation of available state resources to Homeland Security needs). Instead, we expect to increase that percentage to 90% by 2008. Region 9 expects to meet the National targets for reductions of dioxins, furans, and particulates from combustion facilities, as each of the 4 hazardous waste combustion units in our Region will be required to meet the new, lower emission standards of Subpart EEE.

Underground Storage Tanks/Leaking Underground Storage Tanks (UST) Program: There are currently more than 23,000 operational UST facilities in Region 9. Since its inception in the mid-1980's, the UST program was designed to be implemented primarily by the states. EPA has developed an effective partnership with states to implement the program. Each Region 9 state implements an UST program using grants and cooperative agreements from EPA, with two states, Nevada and Hawaii, having achieved State Program Approval. California and Arizona, while working toward achieving State program approval, are implementing very effective UST programs. The National targets for 2008 are to improve compliance rates by 4% over 2004 compliance rates through steady annual improvements (baselines will be determined in 2004). Judging from past performance, we expect that Region 9 states will meet or exceed these targets. Meeting these goals will be a greater challenge for the Region 9 UST programs in the Pacific Islands and in Indian country. UST programs on Tribal lands are not delegable to Tribes. These programs are funded at lower levels than state programs, and are therefore largely still in development. While EPA Region 9 conducts some inspections and undertakes some administrative or regulatory enforcement here, our resources are inadequate to perform all the work that is needed to ensure compliant USTs in Indian country and in remote Pacific Islands. Thus, the potential for violations and releases is greater on these lands than on those addressed by established State programs, posing threats to human health and the environment. For example, facilities in Indian



Country have a substantial operational compliance rate of approximately 55%, compared to the national average of approximately 75-85%.

Strategy Highlights

Hazardous Waste Program: Region 9 plans to have approved controls in place at 90% of our facilities by 2008. To accomplish this, we are working with our states to prioritize issuance of permits to existing interim status facilities. In addition, EPA will directly issue permits at facilities subject to EPA permitting authority (i.e., interim status facilities located on Tribal lands). We will also work closely with our States and OSWER in the coming years to identify and track progress of those facilities coming up for permit renewal by 2006.

UST Program: Region 9 will improve UST compliance through more frequent inspections in Indian Country (in consultation and coordination with Tribal Governments and/or Tribal environmental personnel and inspectors), working closely with our state partners, and coordinating UST and AST programs with the Superfund Oil programs. We will also continue our role in remediation of the Tuba City LUST site.

Region 9's Proposed Measures of Progress

- Tons of Hazardous Waste generated by each state, and for the Region as a whole
- Number of regulatory controls (permits) in place for operating RCRA TSDs by state and region
- Number of regulated controls in place for post-closure TSD by state and region
- Number of confirmed releases at UST sites by state and region
- Number of UST cleanups completed by state and region
- Number of facilities controlling migration of contaminated groundwater for states and region
- Number of facilities controlling current human exposures for states and for region
- Number of confirmed releases at Tribal UST sites for Region
- Number of Tribal UST cleanups completed for Region
- Tribal UST cleanups completed to number of confirmed releases for Region

Sub-objective 3.1.2

Manage Hazardous Wastes and Petroleum Products Properly

| <i>Strategies</i> | <i>Programs and Tools</i> |
|--|--|
| <p>Ensure RCRA facilities have permits or controls in place to reduce/prevent releases</p> | <ul style="list-style-type: none"> • Work with authorized states to identify facilities requiring permits or permit renewals • Prioritize and schedule issuance of permits, post-closure permits, and renewals through 2008 • Directly implement permit issuance where appropriate, in consultation with tribes with respect to facilities in and around Indian country |



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Sub-objective 3.1.2

Manage Hazardous Wastes and Petroleum Products Properly

| <i>Strategies</i> | <i>Programs and Tools</i> |
|--|---|
| Improve operational compliance of UST facilities | <ul style="list-style-type: none"> • Work with OSWER, tribes, and states to establish baseline compliance rate for 2004 • Conduct inspections on tribal lands, in Pacific territories, and at limited facilities in our states • Increase inspection frequency in Indian Country, in consultation and coordination with tribal governments or tribal environmental personnel and inspectors • Work with states and tribes to improve compliance with leak prevention and detection requirements through field presence • Provide compliance assistance to Tribal facilities • Provide compliance assistance to service station operators in remote areas (both aboveground and underground tanks) |
| Provide one-stop oversight and Inspection of tanks | <ul style="list-style-type: none"> • Work with Superfund Oil Team to coordinate inspections of aboveground and underground tanks • Provide coordinated technical assistance and outreach |
| Continue efforts to restore drinking water supplies contaminated with MTBE from UST leaks in Santa Monica Area | <ul style="list-style-type: none"> • Monitor progress of cleanup, and construction of treatment facilities |

Objective 3.2 Restore Land

Sub-objective 3.2.1

Prepare for and Respond to Accidental and Intentional Releases

By 2008, reduce and control the risks posed by accidental and intentional releases of harmful substances by improving our Nation's capability to prepare for and respond more effectively to these emergencies.



Current Status

Emergency Response Program: In FY 2003 the Region received 3867 notifications from the National Response Center. The Emergency Response Section (ERS) responded to a small number of these notifications (approximately 12) because they were deemed sufficiently serious to require a federal response. Of those notifications, 837 were hazardous material releases, five were for radiation incidents, 1820 were for petroleum releases and 1205 were 'other' miscellaneous releases of materials. Over the next five years we expect to increase the number of emergency responses, approximately 10% each year. Significant challenges include having consistent and high quality laboratory analytical services and contractor resources capable of handling simultaneous large emergency responses.

Superfund Removal Program: In FY 2003, the Region initiated ten removal actions, either via an action memo or a unilateral administrative order. Notable among these actions were the completion of a very significant response at the Denova Environmental Inc., an explosives site and a multi-agency, multi-jurisdictional emergency response to the Archie Crippen Debris Pile fire, both in California. Over the next five years we expect our removal action activity to stay relatively flat, given the increased demands of homeland security and preparedness activities. We do not anticipate any significant challenges in this program area unless our funding for conducting and supporting removal actions under CERCLA is reduced.

Oil Program: In FY 2003, the Region conducted 45 Spill Prevention Control and Countermeasure (SPCC) program inspections, issued one unilateral administrative orders, one administrative penalty orders, concluded one administrative case, referred two cases to the Department of Justice and settled one judicial cases. The Region also held training classes on the new SPCC rule requirements in multiple locations in Hawaii, California and Arizona for state, local and Tribal agencies. Over the next five years, we will implement an aggressive strategy in the SPCC, FRP and oil spill response programs, focusing on improving compliance and reducing vulnerabilities. The strategy includes increased inspections, unannounced drills and the use of expedited settlements to resolve enforcement actions more quickly.

Chemical Emergency Preparedness Program: In FY 2003, the Region conducted 35 combined EPCRA non 313 and CAA 112(r) inspections, initiated and settled six administrative penalty cases, collected \$320,000 in penalties and participated in a significant, multi-media enforcement action in southern California. We have also conducted training classes on site security vulnerability assessments for critical sectors in the region such as chemical plants. We have increased our visibility at industry conferences and trade shows to explain EPA's role in critical infrastructure protection for the oil and chemical sectors. We also conducted seven site security visits at high risk chemical facilities in southern California. Over the next five years we will continue our stepped up enforcement and compliance efforts in the non 313 EPCRA, CERCLA §103 and CAA §112(r) programs, focusing on specific geographic and/or industry sectors. We will continue to focus on the US/Mexico Border as an area of increased vulnerability.



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Emergency Response Readiness: In FY 2003, the Region took significant steps to improve our readiness to respond to incidents that threaten human health and the environment. We built a 1400 square foot, state-of-the-art Regional Response Center in the regional office that serves as the emergency management and communications 'nerve center' for any large scale emergency response. We stationed two on-scene coordinators in southern California, giving us vastly improved emergency response capability for incidents in the greater Los Angeles/San Diego corridor as well as providing opportunities to strengthen our relationships with local first responders and law enforcement. We are planning to station an OSC in Phoenix to provide analogous emergency response and area contingency planning capabilities in Arizona, the US/Mexico border area and in Tribal jurisdictions. Over the next five years we will continue to improve our response readiness with regular training, exercises and drills with our local and state first responder colleagues. In addition we will develop expertise in incident command system (ICS) doctrine with specially trained staff who are part of the national Incident Management Assistance Teams.

Homeland Security Challenges and Opportunities: While we cannot predict the number of hazardous material releases that will need EPA assistance in any given year, we are building the capacity to meet or exceed, if necessary, our current annual average number of responses (25 hazardous material or petroleum releases). The Agency's increased emphasis on homeland security has created additional challenges and opportunities for us, partly due to our unique geographical position. The Region shares a 500 mile border with Mexico, has two of the busiest ports on the west coast of the United States (Oakland and LA/Long Beach) and with Hawaii and the Pacific Island Territories of Guam, Saipan and American Samoa, covers a vast area of the Pacific, in addition to our mainland states of California, Arizona and Nevada. These geographic factors represent vulnerabilities in terms of port and border security that we have to address in our area contingency planning. We plan to complete the revision of our regional contingency plans (one for the mainland and one for the Pacific Island area) and then begin work on selected sub areas for area- specific contingency planning (such as the US/Mexico border area). By assigning an OSC and an emergency planner to work with local agencies in selected sub areas, we aim to improve emergency planning and response among those local emergency management agencies. We plan to focus on three sub areas in each of the next five years. Notable challenges include allocating sufficient resources to cover homeland security related tasks while also maintaining our ability to conduct emergency responses and removal actions as required by CERCLA and the NCP.



Strategy Highlights

Over the next 5 years, Region 9 will work to minimize releases from petroleum and other high risk facilities and determine compliance through conducting unannounced inspections, drills and audits. In addition, we'll focus RMP inspections/audits at another 25 high risk chemical facilities in Southern California. We will continue our focus on improving emergency response capabilities among our states, tribes, and at the Border. We will continue to conduct hazmat training and threat assessments for 4 US/Mexico Border Sister Cities in 2003, and will meet our goal of 6 Sister-City agreements by 2012.

Region 9's Proposed Measures of Progress

- Number of Bi-national Hazardous Material Prevention and Emergency Response plans signed by both the US and Mexico

Sub-objective 3.2.1

Prepare for and Respond to Accidental and Intentional Releases

| <i>Strategies</i> | <i>Programs and Tools</i> |
|--|---|
| Maintain Region 9's preparedness to respond to emergencies, and increase response readiness | <ul style="list-style-type: none"> • Assure compliance with Core Emergency Response requirements [ERRD] |
| Respond to releases of hazardous substances and oil spills | <ul style="list-style-type: none"> • Provide spill notifications, responses, removals |
| Oversee/build state, regional geographic, Mexican border, and tribal capacity to respond to oil spills and emergencies | <ul style="list-style-type: none"> • Provide training, drills, and joint responses conducted with partners, including Tribal Emergency Response Resources • Support contingency plans for states and tribes |
| Improve ability of facilities to respond to oil spills and emergencies | <ul style="list-style-type: none"> • Review facility response plans (FPRs) • Conduct SPCC inspections |
| Minimize release from high risk facilities | <ul style="list-style-type: none"> • Conduct training, compliance assistance, drills, inspections and audits |

Sub-objective 3.2.2

Cleanup and Reuse Contaminated Land

By 2008, control the risks to human health and the environment at contaminated properties or sites through cleanup, stabilization, or other action, and make land available for reuse.



Current Status

Since 1980, we along with state and tribal partners have addressed a universe of approximately 5,200 contaminated sites. One-hundred twenty-six of these sites are on the Superfund National Priorities List (NPL) and 163 are high priority RCRA Corrective Action sites. Another 1,157 sites are awaiting assessment or are being addressed under other federal, state, or tribal cleanup programs. The remainder of the sites have been removed from the Superfund inventory to encourage economic development. Of our NPL sites, construction of remedies is underway or complete at 78% of the facilities. Cleaning up the region's most contaminated sites and returning them to productive use is a very important priority for EPA headquarter's Office of Solid Waste and Emergency Response, and for Region 9 and our states and tribes. While we are planning for success, our ability to meet national targets under this objective is highly dependant on receiving sufficient pipeline funding each year for the Fund-lead sites, and adequate oversight resources for all sites. In addition, a variety of technical considerations and public input requirements can impact and delay each step on the path to remedy completion.

Resources for Complex Sites: We have funded, and will continue to fund, cleanups at numerous high-priority, high-profile sites. These are very complex, resource intensive, long-term cleanups. Meeting cleanup targets at these sites will require a commensurate long-term commitment by EPA to the provision of adequate, reliable, multi-year resources. When addressed under RCRA authorities, RCRA resources have historically been insufficient to provide necessary oversight (e.g., the Santa Monica MTBE case).

Technical/logistical considerations: In some cases, multiple factors contribute to difficulty in completing cleanup in a short, predictable time frame. For example, the San Gabriel Valley and San Fernando Valley groundwater sites are both basin-wide sites covering an area of up to 30 square miles. Cleanup of these sites is complicated by numerous sources of contamination with numerous responsible parties (many of which are small businesses), and groundwater located up to 200 feet below the surface.

Emerging, unexpected contamination problems: Another challenge Region 9 faces is the recent emergence of complicated site cleanups involving chemicals we have not previously encountered (MTBE, perchlorate, 1,4-dioxane). For example, within the last few years perchlorate has become a very significant concern to Region 9's waste management, superfund, and water programs. This is because perchlorate is highly soluble, travels quickly through groundwater, and therefore has contaminated large areas and impacted drinking water supplies of thousands of people in a short amount of time. It is difficult and expensive to extract from groundwater and treat, and cleanup standards have not been finalized. Important



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perchlorate cleanup sites in Region 9 include Kerr-McGee, Aerojet, Baldwin Park and Rialto-Colton area.

Base Realignment and Closure: 31 of the 115 major base closures nationwide have occurred in Region 9. EPA works closely with DOD and states to assist cleanup and transfer of these properties for new and productive uses. To date, more than 50,000 acres have been made available for sale or lease in Region 9. Significant resource and staffing reductions from the Department of Defense are anticipated under the BRAC program through 2008.

Tribal Cleanups: More than 175 abandoned or unaddressed LUSTs have been reported on Tribal lands. These cases represent a special challenge, as tribal resources to compel and oversee cleanups are limited. In these cases, EPA works with the tribes to provide technical and other assistance. The Tuba City LUST site is our highest priority of these sites, where the contaminant plume, from an original release of more than 13,000 gallons of petroleum has migrated from gas stations on the Navajo Reservation onto the Hopi Reservation, threatening sacred springs of two Hopi villages.

In addition to the sites mentioned above, other complex, resource intensive cleanups are underway at landfills (Sunrise, BKK), abandoned mines, agriculture sites and PCB spills.

Strategy Highlights

Site Assessments: Region 9 currently completes approximately 150 site assessments and 50 final assessment decisions per year in our Superfund program. Approximately 92% of our current RCRA baseline facilities have been assessed. These accomplishment rates are consistent with achieving national strategic targets by 2008.

Human Exposures Controlled: Unacceptable human exposures have currently been controlled at about 71% of our Superfund sites, and 72% of our RCRA baseline facilities. By 2008, we expect to achieve the national targets of 84% of Superfund exposures under control, and 95% of relevant RCRA exposures under control.

Ground Water Migration Controlled: Migration of contaminated ground water has currently been controlled at 50% of our Superfund ground water exposure sites, and at 52% of our RCRA baseline facilities. The 2008 national targets are 65% and 80%, respectively. The Superfund program expects to be able to meet the 65% target by 2008 if resources are continued at consistent levels.

Final Remedy Selections: National targets call for final remedies to be selected by 2008 at 30% of RCRA baseline facilities. To date, final remedies have been selected at 9% of these facilities in Region 9. The national targets also call for final remedy selections at 1223 Superfund sites nationwide (approximately 3 more final remedy selections per region per year). Region 9 plans to meet this goal based on current



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projections, pending receipt of adequate funding and the outcome of technical complexities previously discussed.

Cleanups and Construction Completions:

USTs: The National strategic goal is to clean up and reduce the backlog of leaking UST sites by 50% (approximately 70,000 sites nationwide) by 2008. This goal may be very challenging to meet both nationally and in Region 9. Region 9's goal is to complete 2,800 cleanups annually. Most of these, over 2,100 per year are to be cleaned up in California. While Region 9 met this goal in FY 2003, future years may be more difficult due to such factors as a decrease in releases due to improved tank standards; the cleanups remaining are more complex, often involving oxygenates such as MTBE which take longer to remediate; and reductions in state staff conducting oversight of cleanups.

RCRA Baseline Facilities: The national target is to complete construction of remedies at 20% of RCRA baseline facilities by 2008. Region 9 has negotiated a commitment to 15% construction completions. We expect to meet this goal by the 2008.

Superfund Sites: Construction completions are the highest Superfund priority nationally. National strategic targets call for completion of construction of remedies at 72% (1,086) of Superfund NPL sites by 2008. This equates to approximately 40 completions per year nationally for FY 2004 through FY 2008. However, meeting this target is very dependent on availability of sufficient "pipeline" funding for each year for the Fund-lead sites, which will impact the many steps leading up to completing construction (i.e., completing RI/FS activities, completing a Record of Decision, conducting remedial design). In addition, achieving completion of construction is dependent on successful resolution of other issues which are often difficult to predict, including various technical considerations and public input requirements. Given these conditions, Region 9 is planning on meeting our pro-rata share of the construction completions each year.

Region 9's Proposed Measures of Progress

- Number of Final Assessment Decisions made each year, and program-to-date
- Number of Removal Starts made each year, and program-to-date, for NPL sites
- Number of Construction Completions made each year, and program-to-date (NPL sites)
- Number of Human Exposures Controlled each year, and program-to-date
- Number of Migration of Contaminated Groundwater Under Control made each year, and program to date (NPL sites)



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Sub-objective 3.2.2 Cleanup and Reuse Contaminated Land

| <i>Strategies</i> | <i>Programs and Tools</i> |
|---|---|
| <p>By 2008, risks to human health and environment will be controlled through cleanup, assessment, stabilization or other activities (RCRA, CERCLA, UST)</p> | <ul style="list-style-type: none"> • Perform site assessments to identify risks and, with input from state partners, determine program disposition. • Conduct non-time critical removals • EPA and/or partners ensure investigations of acceptable quality are performed, remedies selected, designed and constructed • Ensure proper Operations/Maintenance of remedies, conduct 5-year reviews, implement and monitor Land use controls • Utilize appropriate public involvement to ensure meaningful and appropriate public involvement of people of all races, cultures, and incomes in decision-making process • Continue to work with tribes to identify potential new sites and clean-up existing sites <p>Federal Facilities</p> <ul style="list-style-type: none"> • Provide oversight and assistance to site investigations of NPL facilities. With partners, select final remedies for DOE and DOD NPL and NPL BRAC facilities • Base Realignment and Closure: Evaluate Findings of Suitability to Transfer, environmental baseline surveys, and operating properly and successfully decisions in support of property transfer • Ensure meaningful involvement of people of all races, cultures, and incomes in regional decision-making processes. Participate in Restoration Advisory Boards • Reduce risk from DOE contaminated buildings undergoing D&D and ensure wastes are properly characterized and disposed • Formerly Used Defense Sites: Perform site assessments, establish inventory of sites |
| <p>Identify land cleaned up and available for reuse (federal facilities and non-federal)</p> | <ul style="list-style-type: none"> • Perform removal actions or cleanups to assure sites or portions of sites are ready for reuse |
| <p>Delete Sites from NPL</p> | <ul style="list-style-type: none"> • Initiate site deletion from NPL after all appropriate response actions have been completed |



Sub-objective 3.2.3

Maximize Potentially Responsible Party Participation at Superfund Sites

Through 2008, conserve Superfund trust fund resources by ensuring that potentially responsible parties conduct or pay for Superfund cleanups whenever possible.

Current Status

We are currently meeting the National target of reaching settlement or taking enforcement action to compel potentially responsible party (PRP) participation at 90% of Superfund sites once we have identified liable and viable parties. We anticipate continuing to meet or exceed this target in the future. In previous fiscal years, Region 9 addressed all Superfund Statute of Limitations cases with unaddressed total past costs equal to or greater than \$200,000, and we have met this target in FY 2003.

Strategy Highlights

Over the next 5 years, we expect to continue to meet the target of addressing 100% of statute of limitations cases with unaddressed past costs equal to or greater than \$200 thousand.

We will also continue to conduct potentially responsible party (PRP) searches which help identify as many liable/viable PRPs to pay for Superfund cleanups.

Sub-objective 3.2.3

Maximize Potentially Responsible Party Participation at Superfund Sites

| <i>Strategy</i> | <i>Programs and Tools</i> |
|--|---|
| Ensure responsible parties conduct or pay for Superfund cleanups | <ul style="list-style-type: none"> • Conduct PRP searches • Negotiate settlement at Superfund sites with viable, liable parties • Issue/ensure compliance with UAOs • Administer PRP oversight reform • Use comfort letters, windfall lien settlements, or PPAs where appropriate • Address Statute of Limitations cases for Superfund sites with unaddressed past costs equal or greater than \$200K |



Goal 4 Healthy Communities and Ecosystems

Protect, sustain, or restore the health of people, communities, and ecosystems using integrated and comprehensive approaches and partnerships.

Objective 4.1 Chemical, Organism, and Pesticide Risks

Prevent and reduce pesticide, chemical and genetically engineered biological organism risks to humans, communities and ecosystems.

Sub-objective 4.1.1 Reduce Exposure to Toxic Pesticides

Through 2008, protect human health, communities, and ecosystems from pesticide use by reducing exposure to the pesticides posing the greatest risk.

Current Status

Region 9 Tribes and States encompass the most productive agricultural region in the country. Fifty percent of the Region's land area is utilized for farm and livestock operations. California is home to the world's most productive agricultural area, the Central Valley. As one would expect, pesticide use in Region 9 is a significant environmental issue. California alone uses 20% of the nation's pesticides. Between 1991 and 1998, the total volume of pesticide use in California rose 40%. Arizona and Nevada, with the fastest growing populations in the country, have experienced a rapid rise in consumer and structural pesticide use, fueled by tremendous new home construction. Hawaii's pesticide use has also increased, threatening an already fragile island environment. As would be expected in a Region experiencing such prolific use of pesticides, worker safety is a major focus of our program. Twenty percent of the nation's agricultural workforce is in Region 9, and California, with approximately 550,000 farm workers, has nearly twice as many as the next largest farm state.

Strategy Highlights

Region 9 will work with partners and provide grant support to projects to help growers transition away from pesticides that can leave toxic residues in food, and to promote safer pest management practices. We will strengthen implementation and enforcement of worker health and safety programs, and provide technical assistance and educational outreach on pesticides to states, tribes and communities.

The pesticide program will continue to support tribes in building appropriate



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infrastructure to address pesticide concerns. This work includes but is not limited to technical assistance, continuation and project grants and on-site support related to worker protection, pesticides certification and training, assessment of the impacts of pesticides on endangered species, ground and surface water pesticide assessments and management and pesticide education and outreach.

Region 9's Proposed Measures of Progress

- Total pesticide use in CA
- Total agricultural pesticide use in CA

Sub-objective 4.1.1

Reduce Exposure to Toxic Pesticides

| <i>Strategies</i> | <i>Programs and Tools</i> |
|--|--|
| Work in partnership with growers, tribes, states, industry associations, and academia to support projects which will reduce exposure to toxic pesticides | <ul style="list-style-type: none"> • Award Food Quality Protection Grants to help growers transition away from toxic pesticides • Award grants through the Pesticides Environmental Stewardship Program to help promote safer pest management practices • Provide technical support and collaboration to research studies such as UC Berkeley CHAMACOS study • Implement recommendations of National Assessment of Worker Protection Program, as appropriate |
| Educate general public on pesticide risk reduction practices | <ul style="list-style-type: none"> • Provide outreach materials to home owner associations, in utility bills, trade journals and others • Media outreach |
| Strengthen worker protection programs, and increase compliance | <ul style="list-style-type: none"> • Provide technical assistance to tribes and states on worker protection inspections and enforcement • Continue tribal certification and training programs • Provide outreach on pesticide safety issues via media spots and publications, including materials in languages other than English • Evaluate effectiveness of current and additional programs periodically |
| Provide technical support on community pesticide issues as appropriate | <ul style="list-style-type: none"> • Assist in pesticide investigations as appropriate (i.e., investigations such as McFarland, CA project - a complex, multi-media problem crossing jurisdictions of multiple state agencies) |
| Promote protective programs for Agricultural Biotechnology | <ul style="list-style-type: none"> • Participate in agency development/reform of Experimental Use Permit program |

Sub-objective 4.1.2

License Pesticides Meeting Safety Standards

Not applicable to Region 9



Sub-objective 4.1.3

Reduce Chemical and Biological Risks

Through 2008, prevent and reduce chemical and biological organism risks to humans, communities and ecosystems.

Current Status

Region 9 and its tribal, state and local partners have worked closely to successfully reduce pollution (chemical and other pollution) through numerous projects conducted jointly and independently. We look forward to continuing these efforts toward pollution prevention/reduction across all environmental media programs, and all 5 EPA goals. Highlights of a few of our programs are included below:

Chemicals of Concern: Significant priorities for Region 9's PBT program and other Chemicals of Concern include mercury (from gold mining and hospitals); brominated flame retardants (from electronics and foam furniture); dioxins; and PBT chemicals.

Release Toxic Inventory Program: Region 9 is the third ranking region for the number of potential TRI facilities. Our priority areas include the Los Angeles, CA, South Phoenix, AZ, and Central Valley areas of California.

Lead: Lead poisoning continues to be the number one environmental risk to children, especially in areas where there are high concentrations of low-income, minority residents. National efforts have been successful in significantly reducing the number of lead-poisoned children in the United States. In Region 9, we are focusing on high risk geographic areas including: Los Angeles, CA; Barrio Logan in San Diego, CA; Phoenix, AZ; and the Central Valley in CA.

PCBs: In Region 9, human populations most at risk for exposure to PCBs are workers at facilities handling PCB wastes, subsistence anglers in the San Francisco Bay, and populations near PCB transformers or areas of old spills. One regional initiative is to develop a voluntary program with the utilities for the early decommissioning of PCB equipment.

Asbestos: Nationally, EPA is focusing its efforts on asbestos in schools. Region 9 is unique in that we have more schools subject to asbestos regulations (13,000) than any other region.



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Strategy Highlights

We will work in partnership with industry organizations and our State and local counterparts to reduce Chemicals of Concern from the mining, hospital, foam furniture and electronics industries.

Region 9's Proposed Measures of Progress

- Number of children with elevated blood levels of lead
- Number of safely disposed PCB-containing capacitors and transformers
- Reduce TRI releases in partnership communities to air, water, land and on/off site
- Number of pounds of toxics released from Federal Facilities

Sub-objective 4.1.3 ***Reduce Chemical and Biological Risks***

| <i>Strategies</i> | <i>Programs and Tools</i> |
|---|--|
| PBTs: Continue partnership with hospitals, communities, and governments to reduce mercury, dioxin, solid waste from incineration of hospital wastes | <ul style="list-style-type: none"> • Distribute data and information • Provide training and outreach • Support hospital initiatives |
| Chemicals of Concern and PBTs: Reduce exposure to Brominated Flame Retardants | <ul style="list-style-type: none"> • Partner with furniture manufacturers, Design for Environment to identify and promote alternatives to BFRs • Promote green design of electronic products, including reduction/elimination of BFRs |
| PBTs: Permanently dispose of mercury recovered from mines | <ul style="list-style-type: none"> • Support NDEP efforts to explore options for permanent disposal of mercury • Partner with University of Nevada to quantify mercury generated in mining, evaluate markets, and explore reuse/disposal options |
| Reduce Risk from PBTs | <ul style="list-style-type: none"> • Award PBT Initiative Grants • Serve on national review panel for PBT Initiative • Publicize SF Bay Area fish consumption advisories |
| TRI: Identify toxic chemicals released by businesses | <ul style="list-style-type: none"> • Publicize data release • Assist states/communities and EPA programs to use data to improve environmental protection and compliance |
| Reduce childhood lead exposure and poisoning | <ul style="list-style-type: none"> • Issue grants to provide tribal blood lead screening and outreach • Certify individuals to conduct lead abatement, risk assessments and inspections • Authorize state and tribal lead programs |
| Accelerate removal of PCBs from use; ensure safe handling and disposal | <ul style="list-style-type: none"> • Work with industry to develop a voluntary decommissioning program for PCB equipment • Act on permit applications for PCB storage and disposal facilities |
| Assure safe and compliant asbestos maintenance and abatement services | <ul style="list-style-type: none"> • Authorize asbestos programs in CA and HI to certify personnel |

Sub-objective 4.1.4



Reduce Risks at Facilities

Through 2008, protect human health, communities, and ecosystems from chemical risks and releases through facility risk reduction efforts and building community infrastructures.

Current Status

In FY 2003, Region 9 conducted 35 combined EPCRA inspections, initiated and settled six penalty cases, collected \$320,000 in penalties and participated in a significant, multi-media enforcement action in southern California. We have also conducted training classes on site security vulnerability assessments for critical sectors in the region such as chemical plants. We have increased our visibility at industry conferences and trade shows, to explain EPA's role in critical infrastructure protection for the oil and chemical sectors. We also conducted seven site security visits at high risk chemical facilities in southern CA.

Strategy Highlights

Over the next 5 years, Region 9 will work to minimize releases from petroleum and other high risk facilities and determine compliance through conducting unannounced inspections, drills and audits. In addition, we will focus RMP inspections/audits at another 25 high risk chemical facilities in Southern California. We will continue our focus on improving emergency response capabilities among our states, tribes, and at the Border. We will continue to conduct hazardous materials training and threat assessments for 4 US/Mexico Border Sister Cities in 2003, and will meet our goal of 6 Sister City agreements by 2012.

Objective 4.2 Communities

Sustain, clean up, and restore communities and the ecological systems that support them.

Note:
Children's Health is discussed in Chapter 3



Sub-objective 4.2.1
Sustain Community Health

By 2008, 220 US communities, working with EPA, will adopt and begin to implement environmental planning and management processes for sustaining local ecosystems and pursuing ecologically compatible development. On the international front, EPA will work with selected trading partners to address potential sources of environmental degradation associated with trade-related development. All trade agreements negotiated between 2003 and 2008 will contain environmental protection provisions and commitments to enforce environmental laws effectively.

Current Status

Region 9 recognizes the critical role local communities play in protecting the ecosystems and environmental character of their own geographic area, whether those communities are rural or densely populated urban areas. Land use planning, transportation planning, water supply and treatment, and solid waste management are all primarily local activities. Decisions communities make each day in these areas can support and advance environmental quality or can erode it.

Strategy Highlights

Region 9 will serve as a resource to communities, sharing environmental data relevant to the area; advising communities of methods to use data, information and tools in environmental assessment and planning; and advising communities on methods to work collaboratively with a range of stakeholders. We will support communities through development of strategic partnerships and through targeted grants.

Currently, Region 9 is working with selected communities to reduce sources of exposure to toxic chemicals arising from multimedia sources. For example, in South Phoenix we are involved in a comprehensive effort with state and local government, industry, and community members to identify various sources of toxic chemical exposures in the community and develop projects to reduce releases and exposures. In addition, Region 9 works closely with Pacific Island communities and the Mexican Border communities on all aspects of environmental protection. Finally, we are actively engaged with numerous communities to promote Children's Health (see Chapter 3).



**Sub-objective 4.2.1
Sustain Community Health**

| <i>Strategies</i> | <i>Programs and Tools</i> |
|--|--|
| Help EPA programs, States, partner agencies, local communities and other stakeholders address environmental issues resulting from our Region's unprecedented growth; look for ways to help communities balance environmental, economic, social needs | <ul style="list-style-type: none"> • Develop Green Communities program in Region 9 • Target efforts with key growth areas (Central Valley, Los Angeles, NV, AZ) • Transfer sustainable, innovative programs to communities • Integrate Smart Growth and Sustainable Development principles into EPA program work (Brownfields, NEPA, P2, CAA, CWA, etc) • Promote use of Environmental Finance Centers to assist communities • Support multi-media, place-based projects that include Smart Growth and Sustainability issues |
| Empower communities to promote sustainable ecosystems and development through meaningful public participation | <ul style="list-style-type: none"> • Provide training to increase understanding of public participation processes for site cleanup, permitting, etc. |

**Sub-objective 4.2.2
Restore Community Health**

Through 2008, facilitate the restoration of communities impacted by environmental problems. By 2008, increase by 50% the number of communities, working with EPA, that have addressed disproportionate environmental impacts and risks through comprehensive, integrated planning and environmental management, compared to the 2002 baseline of 30 communities.

Current Status

The objective of Environmental Justice (EJ) is the reduction of actual and potential disproportionate environmental impacts to low income communities and communities of color. EPA defines EJ as the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations and policies. Region 9's environmental justice goals include the integration of environmental justice with all agency programs, community capacity building and empowerment, and federal/state/local agency capacity development for EJ implementation.

Strategy Highlights

Region 9 prepares an annual Environmental Justice Action Plan which describes the work the region will undertake to support this objective. Highlights of this plan are presented below.



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Sub-objective 4.2.2 Restore Community Health

| <i>Strategies</i> | <i>Programs and Tools</i> |
|--|---|
| Integrate EJ within our programs and activities to address EJ issues in communities | <ul style="list-style-type: none"> • Develop region-wide 2 year EJ strategy and annual operating plan • Conduct consensus building with each Region 9 program and issue Region 9 EJ Policy and Guidance • Provide customized EJ training to specific EPA job functions (e.g., permit writers) • Provide comments regarding EJ impacts in NEPA reviews, permit actions, etc. • Provide EJ input and assistance to other EPA programs (Children's Health, Border, Brownfields) |
| Support and assist EJ work in specific communities and specific | <p>Examples include:</p> <ul style="list-style-type: none"> • Central Valley mobile home parks • Farm labor camps along US/Mexico Border • Barrio Logan in San Diego, CA • East Palo Alto, CA • North Richmond, CA • Los Angeles International Airport expansion |
| Empower communities to identify and more effectively address EJ | <ul style="list-style-type: none"> • Conduct EJ listening sessions in states • Award EJ Small Grants to communities to better participate in decisions affecting their environment • Support use of alternative dispute resolution processes in Title VI complaints |
| Enhance capability of states, tribes, other federal agencies, and other stakeholders to address EJ considerations within their program activities. | <ul style="list-style-type: none"> • Provide training to federal, state, and local government representatives to increase understanding of public participation processes for permitting, cleanups, TRI interpretation • Provide "Fundamentals of EJ" training to governmental agencies and community members • Assist in development of state/local EJ policies |
| Improve access to safe, reliable drinking water in the Pacific Islands | <ul style="list-style-type: none"> • Work with other federal agencies to address the growing gap between available federal funding and capital needs for infrastructure. • Implement the Stipulated Order to improve Guam Water Authority management and operations. • Arrange for peer review of water utility operations in Saipan • Work with Saipan Governor's Task Force to address provision of 24-hour water service to Saipan • Work to approve Guam's nonpoint source program |



Sub-objective 4.2.2
Restore Community Health

| <i>Strategies</i> | <i>Programs and Tools</i> |
|--|---|
| Improve waste management in Pacific Islands | <ul style="list-style-type: none"> • Complete planning process to close Ordot dump and improve household waste collection in Guam • Work with other Federal agencies to provide landfill operator training for all Pacific Islands • Complete RCRA hazardous waste permit process for Andersen AFB • Provide technical assessments of key dumpsites |
| Build environmental protection capacity in Pacific Islands | <ul style="list-style-type: none"> • Support US Coral Reef Task Force (see Goal 4.3.1) • Co-sponsor the annual Pacific Islands Environment Conference • Provide technical assistance and training • Work in partnership with Pacific Rim Environmental Resource Center and EPA's Criminal Investigations Division to train local agencies on compliance issues. |

Sub-objective 4.2.3
Assess and Clean Up Brownfields

By 2008, provide funding to eligible grant recipients, and working with our state/tribal partners, assess and promote cleanup and reuse of 9,200 Brownfields properties, leveraging 33,700 jobs and \$10.2 billion in cleanup/development funding.

Current Status

Region 9 has an active and successful Brownfields program. Since program inception in 1995, we've provided more than \$25 million in assistance grants to communities to assess, cleanup and develop contaminated properties. In addition, approximately 300 jobs have been generated. In FY 2003, Region 9's Brownfields team managed 41 site assessment pilots, offered 5 job training pilots, developed 3 showcase projects and oversaw 14 revolving loan fund pilots and 10-15 targeted assessments.

Strategy Highlights

In the years ahead, we expect to continue the current pace of these activities, and we anticipate meeting our portion of the Agency's 2008 targets (generating approximately 3,000 jobs and \$1 Billion in revenues). We will integrate our Brownfields activities across our Superfund, RCRA, tanks and federal Facilities programs, and actively promote reclamation of resources on Brownfields projects.



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Region 9's Proposed Indicators of Progress

- Number of "acres available" made each year and program to date
- Number of properties and/or acres made available for reuse each year and program to date

***Sub-objective 4.2.3
Assess and Clean Up Brownfields***

| <i>Strategies</i> | <i>Programs and Tools</i> |
|---|---|
| Coordinate Brownfields activities across Region 9 programs | <ul style="list-style-type: none"> • RCRA/UST and Superfund Brownfields teams will collaborate to implement Brownfields Revitalization Act • Coordinate outreach, applicant assistance, and oversight of Brownfields grants • Develop geographic initiatives as appropriate • Publicize Brownfields successes |
| Work with communities to assess, clean up and develop properties for beneficial use | <ul style="list-style-type: none"> • Continue work with those communities already utilizing Brownfields resources • Assist communities to apply for EPA funds • Provide oversight to current and future Region 9 grant projects, e.g.: <ul style="list-style-type: none"> • Approximately 15 Brownfields Assessment Grants in Region 9 are awarded each year • 3 Region 9 Showcase Communities are currently underway (East Palo Alto, Gila River Indian Community, City of Los Angeles) • 10 Brownfields Cleanup Grants were awarded in 2003 • 14 Region 9 cities currently have Brownfields Revolving Loan Fund grants • 5 cities currently have job training grants (Los Angeles, Long Beach, Oakland, Richmond, San Francisco) • 4 communities have USTFields grants (Los Angeles; Hawthorne, NV; Oakland, and Gila River Indian Community) |
| Promote Green Building in Brownfields projects | <ul style="list-style-type: none"> • Support Green Building in Brownfields grant solicitations and awards • Incorporate Green Building in Brownfields outreach and publicity |
| Promote Brownfields with targeted industry sectors | <ul style="list-style-type: none"> • Conduct Brownfields outreach meetings with oil industry |

***Sub-objective 4.2.4
Sustain and Restore US-Mexico Border Ecosystems***

In the US Mexico Border Region, sustain and restore community health and preserve the ecological systems that support them.

Current Status

Region 9 has identified the US/Mexico Border as a regional priority due to the number of challenging environmental concerns unique to the area. The Water Division is the lead for Region 9's US/Mexico Border work. The focal point of our regional effort is the implementation of the Border 2012 program, a multi-media



effort to address the environmental concerns unique to the US/Mexico Border region.

Strategy Highlights

We will employ a multi-media approach with the goal of producing results that will improve environmental conditions at the Border. In addition, we will work with our US and Mexican partners to implement the new Border 2012 Plan. Border 2012 is a bi-national program which has a 10 year planning horizon to implement solutions to pressing long-range Border environmental issues. The Border 2012 goals include: reducing water, air and land contamination, reducing exposure to pesticides, reducing exposure to chemicals as a result of accidental chemical releases and/or acts of terrorism, and promoting environmental stewardship/environmental compliance. Our Regional strategic highlights described below align with those broad Border 2012 goals.

Region 9's Proposed Measures of Progress

- Number of Binational Hazardous Material Prevention and Emergency Response Plans signed by both Countries

Sub-objective 4.2.4
Sustain and Restore US-Mexico Border Ecosystems

| <i>Strategies</i> | <i>Programs and Tools</i> |
|---|---|
| Participate in a multi-media effort with various stakeholders to implement Border 2012 plan | <ul style="list-style-type: none"> • Participate in and support workgroups (e.g., Arizona/Sonora, CA/Baja CA) and task forces (e.g., water task force) with federal, state and local agencies of US and Mexico, academia, tribes, and stakeholders |
| Water Programs: Working with Mexican, US, and Tribal partners, improve water infrastructure, and provide improved water quality conditions | <ul style="list-style-type: none"> • Complete upgrade for Tijuana Wastewater Treatment Plant to improve water quality conditions along Tijuana beaches and neighboring US cities (Imperial Beach, San Diego) • Initiate Mexicali II Wastewater Treatment Plant to improve water quality of New River in Mexicali, Baja California/Imperial Valley area |
| Waste Programs: With US, Mexican, and Tribal partners, work toward a bi-national policy on land cleanup, reuse, and revitalization of abandoned sites | <ul style="list-style-type: none"> • Identify needs and develop action plan to ensure current tire piles do not pose a serious fire threat in the Border area. Develop strategies for fire prevention, mitigation, and to plan response actions if necessary. • Help improve Mexico's capacity for waste management and pollution prevention. Strengthen existing San Diego-Tijuana WasteWise program • Develop and implement guidance to cleanup and restore properties based on land revitalization principles (pilot at Metales site) • Provide multi-party compliance training, with focus on ports of entry • Support CA and AZ Border programs with grants |



Objective 4.3 Ecosystems

Sub-Objective 4.3.1 *Protect and Restore Ecosystems*

Facilitate the ecosystem-scale protection and restoration of natural areas.

Current Status

Region 9 has 3 significant estuaries we will be focusing our efforts on under the National Estuary Program (NEP). These include San Francisco Bay, Santa Monica Bay, and Morro Bay. In addition, Region 9 has the important priority of protecting 95% of the nation's coral reefs located in Hawaii and the US Pacific territories.

Strategy Highlights

Under the National Estuary Program (NEP), the Water Division will use regulatory and non-regulatory tools to support the restoration and protection of the three projects: San Francisco Bay, Santa Monica Bay, and Morro Bay. Comprehensive Conservation and Management Plans (CCMPs) have been completed for all three projects, and implementation efforts are underway. In FY 2004, we will pursue the following key implementation actions for each project:

San Francisco Bay: San Francisco Estuary Project (SFEP) will make significant progress in implementing its CCMP through ecosystem restoration projects. Priorities include continuing the award-winning stormwater management construction training classes, the planning process for the South Bay Cargill Salt Pond restoration, involvement in invasive species management and public education, and the development of ecosystem indicators for the San Francisco Bay Estuary. Additionally, SFEP will sponsor a biennial conference to highlight implementation activities throughout the SF Bay/Delta area.

Santa Monica Bay: The Santa Monica Bay Restoration Commission, formerly the Santa Monica Bay Restoration Project, will continue implementing the Bay Restoration Plan by leveraging EPA funds with almost \$1 million in additional outside funding. Priorities include controls for stormwater runoff, pathogens associated with Malibu septic systems, restoration of Ballona Creek Wetlands, and environmental indicator species development. In addition, the Commission will serve as the local focal point for capacity building via the State of the Bay Conference, and their Public Involvement and Education Program. The Commission may also become the local lead public outreach agency for the Palos Verdes Shelf Superfund actions.



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Morro Bay: The Morro Bay National Estuary Program will be a local leader for the central coast of California in estuary and watershed restoration. They will host a State of the Bay Conference, other local outreach efforts, and sponsor the local implementation grant program. Conservation easements and other strategically purchased land acquisitions address cross-cutting environmental issues in the estuary. A strong Volunteer Monitoring Program will support reporting on environmental indicators, TMDLs, and water quality standards. Refinement of environmental indicators and baseline data will set priorities for changes in beneficial use designations and related water quality standards revisions. Through their involvement in the US Army Corps of Engineers Habitat Restoration Study and participation in permitting of the local power plant, significant progress is underway to ensure the estuary can expand its ability to support critical species such as eelgrass and steelhead trout.

In our EPA headquarters Office of Water management agreement, we are targeting a total of 5050 acres of NEP habitat (both aquatic and terrestrial) for protection. This consists of 3300 acres at the Santa Monica Bay EP (2783 Ahmanson, 547 Ballona), and 1750 acres at the Morro Bay EP (Maino Ranch conservation easement).

In addition to protecting priority estuaries and bays, EPA Region 9 will focus on the conservation of coral reefs in the Pacific Ocean, where 95% of the nation's coral reefs occur. Specifically, we will work toward the US Coral Reef Task Force's (USCRTF) priority of protecting coral reefs from land-based pollution sources. In October 2003 at the National Task Force Meeting, we presented the State of Hawaii's draft strategy for assessing and controlling land-based pollution sources, and we took a leadership role within the USCRTF Pacific Regional Subcommittee regarding next steps for finalizing local action strategies. In 2004, we will work with Hawaii, American Samoa, Guam, and the Commonwealth of the Northern Mariana Islands to finalize these action strategies, and to begin their implementation. This will include the implementation of Best Management Practices (BMPs) to reduce pollution sources, and advancement of monitoring programs to assess the health of coral reefs, as well as working with local jurisdictions on outreach strategies. In partnership with NRCS, NOAA, and other federal agencies, we will organize a workshop to identify indicators of pollution stress for coral reefs. We will continue to coordinate our overall efforts with the US Coral Reef Task Force, as well as with our federal, state, and local partners.



Sub-Objective 4.3.2
Increase Wetlands

Achieve a net increase of 400,000 acres of wetlands with additional focus on biological and functional measures.

Current Status

In Region 9, vast areas of wetlands have been degraded and destroyed by a range of human activities, including conversion of wetlands into agricultural uses, construction of infrastructure (e.g., dams, transportation projects, utilities), and the expansion of residential, commercial, and industrial development. The following are the estimated losses of state wetland acres since European settlement: Arizona (33%), California (91%), Hawaii (12%), Nevada (52%) [Van Nostrand and Reinholdt, 1990]. These figures underestimate the losses in terms of biological and functional measures, for example, due to fragmentation. California has lost more wetlands than any other state in the country; however, beginning in 1996, voters passed a series of environmental bonds (Propositions 204, 12, 13, and 40) that provided State agencies with \$7.7 billion for a range of projects designed to protect water quality, water supply, and natural areas. These funds have been leveraged with federal and private monies to protect wetlands and estuaries -- including 16,000 acres of former salt ponds surrounding San Francisco Bay. A major challenge in tracking losses or gains pursuant to this sub-objective is that there is no comprehensive, central tracking system to document overall wetlands losses/gains related to permitted actions, unauthorized discharges, or acquisition and restoration projects. EPA headquarters Office of Water intends to address this problem.

Strategy Highlights

The Water Division will be using planning, permitting, and enforcement tools to prevent the degradation of the Region's diverse wetlands ecosystems, and to promote their recovery. In FY 2004 we will increase our work with EPA headquarters Office of Water and other Regions on two key tasks: (1) refining the guidance documents for the evolving wetlands grants program; and (2) revising the proposed Interim National Strategy to Strengthen State and Tribal Protection of Wetlands.

In wetlands permitting, we expect to review approximately 750 Public Notices issued by the various Army Corps of Engineers Districts (Corps). Based on our past experience, we expect that we will object to the issuance of approximately 10% of these permit applications. We will make our first significant trips to the Sacramento Corps District's field offices in Reno and St. George, Utah, and return to the Arizona field office to enhance interagency coordination across Arizona and Nevada. We will sign a revised Memorandum of Understanding with California Department of Transportation and Federal Highways Administration governing transportation projects in California. In Hawaii, we will focus on permitting for the Kapa'a Relief



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Route project on the island of Kauai. Also, we will work with the Corps Districts in Fort Worth and Los Angeles, and the Department of Homeland Security on permitting for the 14-mile completion of the proposed US/Mexico Border Fence.

In planning and permitting efforts under our MPRSA ocean-dumping program, we will accomplish the following tasks in FY 2004: (1) advance the permanent designation of the "LA-3" ocean disposal site off Newport Bay; (2) assist the Corps and the Coast Guard with MPRSA permitting matters for both planned projects and emergency events (e.g., vessel disposal); (3) assure site management and monitoring activities (e.g., our San Francisco deep ocean disposal site work highlighted above under Sub-objective 2.2.2); and (4) maximize the beneficial re-use of dredged materials for port construction and wetlands restoration.

Proposed Region 9 Measure of Progress

- Acres and/or percent of wetlands net gain or loss

Sub-Objective 4.3.1 Protect and Restore Ecosystems

Sub-Objective 4.3.2 Increase Wetlands

| <i>Strategy</i> | <i>Programs and Tools</i> |
|---|--|
| By 2008, working with partners, achieve net increase of 400,000 acres of wetlands | Wetlands permitting and enforcement programs, partnerships with land conservation groups, state-local-tribal wetlands grants, transportation project MOU |

Sub-Objectives 4.3.3 through 4.3.5

Not applicable to Region 9



Goal 5 Compliance and Environmental Stewardship

Improve environmental performance through compliance with environmental requirements, preventing pollution, and promoting environmental stewardship. Protect human health and the environment by encouraging innovation and providing incentives for governments, businesses, and the public that promote environmental stewardship.

Objective 5.1 Improve Compliance

By 2008, maximize compliance to protect human health and the environment through compliance assistance, compliance incentives, and enforcement by achieving a 5 percent increase in the pounds of pollution reduced, treated, or eliminated, and achieving a 5 percent increase in the number of regulated entities making improvements in environmental management practices. (Baseline to be determined for 2005.)

For compliance assurance to be successful, our Region 9 strategy must achieve four things:

- Credible presence
- Level playing field (to encourage entities which do comply to stay in compliance and to create an atmosphere which encourages moving to greater levels of stewardship)
- Significant results (in terms of public health and environmental health outcomes achieved as a result of returning facilities to compliance)
- Technical assistance for those not in compliance to return to compliance

In the Pacific Southwest we have broad delegation to states and active partnerships with tribes, striving to delegate programs to those tribes showing enforcement compliance capabilities. Fundamental to those partnerships is clear agreement about strategic objectives and targeting of compliance assurance work. We meet annually with states and tribes to agree on shared priorities and design strategies to achieve significant compliance assurance goals. Accountability is built into regularly scheduled follow up dialogues, usually on a program-specific basis. We anticipate that increasing pressure on state budgets and continuing needs for improved education and resources for compliance on Indian Lands will make astute choices of targets and maximum leverage of partnership opportunities increasingly important in our compliance assurance planning. Vital to our shared ability to maintain a credible compliance assurance program in light of constrained resources is access to good data -- for targeting the most significant contributors to the most significant problems, and for evaluating our success in their solution. We will continue to support the development of a strong state-federal network as well as a tribal network for generation and use of targeting data and creation of mutually agreed measures of program impact. In California, we have a particular challenge



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with water program data which, due to the state's size, has a major impact on the national picture. The state has developed a strategy which we support for resolving these problems. We will need national assistance to make them happen.

We expect to have state-regional agreements on mutual measures of accountability in place by the end of FY 2004. Tribal agreements are tribal specific.

Region 9 continues to work closely with the Criminal Enforcement Program throughout the region. Cases and leads are discussed regularly among the enforcement managers, both civil and criminal, to ensure that the most appropriate actions are brought in a given situation. The Criminal Investigation Division operating in Region 9 works with regional staff members to assist in the case selection process so that the limited criminal investigative resources are directed toward the cases which help to support the region's priorities. In turn, Region 9 provides technical assistance in criminal investigations to ensure just and equitable prosecutions.

We are convinced that strong, consistent local news coverage of the results of our compliance assurance work is one of our best tools for both maintaining credible presence and deterring noncompliance. We conduct a vigorous communication program to make the public and other regulated entities aware of our compliance assurance work and the results it is achieving, using print media, television and radio coverage, guest columns and public speaking engagements as appropriate. Our short term goal is press coverage for at least 80% of our enforcement work. We will be setting communication goals for our other compliance assurance work this year, and will be expanding our enforcement outreach to trade and community publications, too.

Region 9's Proposed Measures of Progress

In general, our compliance assurance work (whether in partnership with states or tribes or as direct federal intervention) involves a balance of assistance, monitoring and enforcement, with choice of enforcement instrument guided by the specific circumstances. While it is difficult to project mix of compliance assurance tools several years out, our shorter range strategies involve balancing tools to meet the priorities outlined below.

In Region 9, we use quantified output and outcome measures to evaluate our progress in implementing our strategy. As stated above, our goals are to establish credible presence, maintain a level playing field and achieve significant results. Keeping in mind that Tribal capabilities are at a different level than States', and more education is required, we are using the program measures chosen by EPA headquarters Office of Environmental Compliance and Assistance as the best current quantification of progress in compliance assurance. In addition, we are tracking our press coverage of enforcement, for the reasons mentioned above. The indicators we are using are listed below and are implemented by many EPA programs, activities, and strategies.



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Enforcement (most programs)

- Number of Significant Noncompliers
- Number of voluntary audit programs (Company NODs)
- Number of case initiations - civil referrals to US Department of Justice, APO complaints, criminal referrals
- Million dollars of penalties
- Number of citations and inspections
- Number of administrative compliance orders
- Number of civil judicial settlement
- Number of administrative penalty settlements
- Value (\$) of injunctive relief
- Value (\$) of Supplemental Environmental Projects (SEPs)

Environmental Benefit

- Number of enforcement cases including SEPs (pollution reduced, treated by pounds, cubic yards, acres)
- Total number of cases
- Number of Direct Environmental Benefits
- Number of Facility Management of Information Practices
- Amount of contaminated soil treated, reduced
- Amount of contaminated groundwater treated
- Number of people affected by pollution treated, reduced
- Number of "Pollution Reduction" made each year
- Number of "Pollution Reduction" made year to date

Compliance Assistance

- Number of people reached: telephone/email, presentation/meetings, workshops/training, tool distribution, on-site visits - by Sector and by Statute

Of all these measures, the activity counts are a good indicator of presence, penalty data give a reasonable proxy for success in establishing a level playing field, and injunctive relief, pollutant reduction and SEP information are good measures of results. Our tracking of press coverage gives us additional information on presence (how the stories are told, what audiences we are reaching) and level playing field (as we reach other members of the regulated communities). At present, these measures cover only federal actions. As we conclude our discussions with state and tribal partners about measures of mutual accountability, we will enhance this list of indicators.



**Sub-objective 5.1.1
Compliance Assistance**

By 2008, prevent noncompliance or reduce environmental risks through EPA compliance assistance by achieving: a 5% increase in the percent of regulated entities that improve their understanding of environmental requirements; a 5% increase in the number of regulated entities that improve environmental management practices; and a 5% increase in the percent of regulated entities that reduce, treat, or eliminate pollution.

**Sub-objective 5.1.1
Compliance Assistance**

| <i>Strategies</i> | <i>Programs and Tools</i> |
|-------------------------------|---|
| Air programs | <ul style="list-style-type: none"> • Set priorities derived from national and regional initiatives • Focus on sources/sectors with low compliance • Prioritize communities with EJ and air toxics concerns • Focus, near term, on auto recycle sector • Use as tools: outreach materials, training, workshops |
| Waste programs | <ul style="list-style-type: none"> • Work with other providers to leverage resources • Focus on large, specific-targeted audiences that will most benefit • Present information on compliance with new and existing regulations • Provide presentations at conferences, workshops with states and trade organizations • Sponsor booths at trade shows • Create and distribute fact sheets/videos • Provide direct assistance via phone calls • Award grants to other compliance assistance providers to focus on safe management of hazardous waste, P2, PBT reduction, Mexico border, recycling, EJ issues, data quality |
| Water programs | <ul style="list-style-type: none"> • Provide assistance to CAFO operators on new CAFO rule and BMPs • Provide technical assistance for waste water treatment facilities and subsurface disposal systems on tribal lands • Regulate underground injection control (UIC) wells • Provide training on operation and maintenance of large capacity septic systems and drainfields on tribal lands • Present drinking water rule regulatory workshops |
| Federal facilities | <ul style="list-style-type: none"> • Provide technical assistance and outreach to Feds to improve environmental management operations • Conduct Environmental Management Reviews (EMRs); joint/coordinated meetings and inspections (near term priorities: VA and BLM) |
| TRI | <ul style="list-style-type: none"> • Conduct outreach on reporting requirements to specific industry sectors, to be selected |
| Lead Paint, Children's Health | <ul style="list-style-type: none"> • Evaluate effectiveness of assistance mechanisms to improve compliance with pre-renovation disclosure rule |
| Pesticides | <ul style="list-style-type: none"> • Develop/distribute outreach tools addressing non-compliance surrounding sale, distribution and imports |



***Sub-objective 5.1.1
Compliance Assistance***

| <i>Strategies</i> | <i>Programs and Tools</i> |
|-------------------|---|
| All programs | <ul style="list-style-type: none"> • Promote awareness of compliance issues through media publicity of significant enforcement actions |

***Sub-objective 5.1.2
Compliance Incentives***

By 2008, identify and correct noncompliance and reduce environmental risks through a 5 % increase in the percent of facilities that use EPA incentive policies to conduct environmental audits or other actions that reduce, treat, or eliminate pollution or improve environmental management practices.

Strategy Highlights

Region 9 will continue to utilize the suite of incentives the Agency offers to encourage government, industry, and business facilities to assess their overall compliance with environmental requirements and voluntarily correct and report compliance problems. The Region will continue to make the Audit policy (Self-Policing Policy) and other compliance incentives available to the regulated community. We will also encourage owners of multiple facilities to disclose environmental violations, and support the performance of more comprehensive voluntary operational reviews by these entities.

***Sub-objective 5.1.3
Monitoring and Enforcement***

By 2008, identify, correct and deter noncompliance and reduce environmental risks through monitoring and enforcement by achieving: a 5% increase in complying actions taken during inspections; a 5% increase in the percent of enforcement actions requiring that pollutants be reduced, treated, or eliminated; and a 5% increase in the percent of enforcement actions requiring improvement of environmental management practices.

***Sub-objective 5.1.3
Monitoring and Enforcement***

| <i>Strategies</i> | <i>Programs and Tools</i> |
|---|---|
| Air programs: Improve conditions in nonattainment areas, and forestall degradation in attainment areas | Priorities: <ul style="list-style-type: none"> • Ozone: New Source Review (NSR) and Prevention of Significant Deterioration (PSD) investigations of petroleum refineries • PM: agriculture sources, construction sites, cement plants |



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Sub-objective 5.1.3 Monitoring and Enforcement

| <i>Strategies</i> | <i>Programs and Tools</i> |
|--|---|
| Air Programs: Reduce exposure to air toxics | <p>Priorities:</p> <ul style="list-style-type: none"> • Compliance with MACT standards for air toxics (aluminum and printing/publishing sectors), solvent degreasers, asbestos sources, petroleum refiners, EJ communities. |
| Air Programs: Control stratospheric ozone depleting chemical emissions | <ul style="list-style-type: none"> • Target bakeries in near term |
| Water: Surface Water Protection | <ul style="list-style-type: none"> • Priorities: "Wet weather" violations, storm water sanitary sewer overflows, pre-treatment compliance • Target sectors: Auto salvage, construction, CAFOs, slaughterhouses, dairies, mines, municipal collection systems • Priority area: CA's Central Valley • Supplement work of State partners who are authorized to implement NPDES • Improve data management under PCS, and facilitate switchover to new enforcement reporting system (ICIS-NPDES) |
| Water: Drinking Water Protection | <p>Priorities:</p> <ul style="list-style-type: none"> • Public waters supply systems in significant noncompliance • Compliance with microbial, nitrate, Cu, Pb, and As requirements • Ditch systems in CA's Central Valley • Compliance on tribal lands and EJ communities • Homeland security issues • UIC inspections (auto salvage sector emphasis) • Enforcement of rules our state partners do not have authority to enforce (i.e., Disinfectants and Disinfection Byproduct Rule in CA) • Improve drinking water compliance data management with states (SDWIS switchover) |
| Water: Wetlands Protection | <p>Priorities:</p> <ul style="list-style-type: none"> • Select cases that protect a greater diversity of aquatic ecosystems (e.g.: desert rivers in AZ, tropical rivers in HI, subalpine meadows and coastal estuaries in CA) • Address wetlands across R9 states and ACOE districts • Focus on priority waters (impaired and pristine) that may not be otherwise protected by another agency • Ocean dumping site (MPRSA) and beneficial reuse of dredged material • Protect threatened, endangered, Native species, especially culturally sensitive species • Increase collaboration between stormwater and wetlands programs |



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Sub-objective 5.1.3 Monitoring and Enforcement

| <i>Strategies</i> | <i>Programs and Tools</i> |
|---------------------------|---|
| Hazardous Waste Programs | <p>Priorities:</p> <ul style="list-style-type: none"> • TSDFs on tribal lands • Facilities in under-performing CUPA jurisdictions and EJ communities • Facilities subject to RCRA air emissions rules; also, larger generators, generators of waste minimization priority pollutants • Biennial report non-filers <p>Sectors:</p> <ul style="list-style-type: none"> • Metal finishing • Wood treating • Mineral processing • Foundries |
| Underground Storage Tanks | <p>Priorities:</p> <ul style="list-style-type: none"> • USTs in Indian Country and in remote locations such as Pacific Islands • USTs impacting ground water and drinking water systems • Tanks in remote locations • Tanks impacting ground water and drinking water systems |
| Superfund | <ul style="list-style-type: none"> • Emphasize sustaining high levels of PRP participation |
| Toxics: Lead and Asbestos | <p>Priorities:</p> <ul style="list-style-type: none"> • Threats to children (lead and asbestos) • Areas with high indicators of elevated blood lead (ex: Los Angeles, Barrio Logan, Phoenix, Central Valley), areas adjacent to metropolitan or rural landfills <p>Sectors:</p> <ul style="list-style-type: none"> • Realtors and property managers who fail to disclose under Lead Disclosure Rule; small firms with fewer units |
| Toxics: TRI | <p>Priorities:</p> <ul style="list-style-type: none"> • Homeland security • High priority sectors and geographic areas (LA, S. Phoenix, W. Oakland, N. Richmond, Clark County, C. Valley, Imperial Valley, Border) |
| Pesticides | <p>Priorities:</p> <ul style="list-style-type: none"> • Worker protection • Illegal sale of restricted use pesticides • Misuse on tribal and territorial lands • High risk products • Assuring integrity of experimental use program (biotechnology) |



Objective 5.2 Improve Environmental Performance through Pollution Prevention and Innovation

By 2008, improve environmental protection and enhance natural resource conservation on the part of government, business, and the public through the adoption of pollution prevention and sustainable practices that include the design of products and manufacturing processes that generate less pollution, the reduction of regulatory barriers, and the adoption of results-based, innovative, and multimedia approaches.

Region 9 and our partners are challenged by increasingly complex environmental problems that defy conventional regulatory solutions, and budget constraints that make it necessary to accomplish more with fewer resources. More than ever, we are compelled to find innovative ways to make environmental progress, through collaboration with others who share common interests, promotion of innovative technologies, and exploration of alternative ways to implement our core regulatory programs. In Region 9, we are working to build a culture that looks for different, better ways to reach our goals and create stronger, more cost-effective environmental protection systems.

Sub-objective 5.2.1 Prevent Pollution and Promote Environmental Stewardship by Government and the Public

Through 2008, reduce pollution and improve environmental stewardship practices of all levels of government. Demonstrate how government agencies can serve as stewards of the environment and assist them in meeting their responsibilities under the National Environmental Policy Act (NEPA). Raise the public's awareness of actions it can take to prevent pollution.

Current Status

Region 9 has an active program to prevent government pollution, and transform government markets to produce a new generation of environmentally preferable products and services. In addition, Region 9 is a very active participant in the NEPA review process, with a high volume of projects associated with our large percentage of federally owned land (61%), and rapid population growth triggering a high workload in transportation projects, water and energy sectors. Historically, Region 9 has managed approximately 20% of the national NEPA/309 review workload.



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Proposed Region 9 Measures of Progress

- Number of significant impacts identified by EPA and number of significant impacts mitigated in NEPA reviews (identified, resolved, not resolved)
- Environmental improvements based on ratings of final EIS's (improvements, no issues, unresolved impacts)

Sub-objective 5.2.1

Prevent Pollution and Promote Environmental Stewardship by Government and the Public

| <i>Strategies</i> | <i>Programs and Tools</i> |
|--|--|
| Promote conservation and pollution prevention at EPA Region 9 offices | <ul style="list-style-type: none"> • Complete and implement Region 9's EMS. Obtain ISO 14000 registration. Assess results. • As a WasteWise Partner, implement Affirmative Procurement Plan, pilot paper use reduction software, promote green meetings, etc. |
| Promote conservation and pollution prevention within government sector | <ul style="list-style-type: none"> • Participate in Federal Network for Sustainability • Promote federal Green Building, Federal Electronics Challenge, and federal Green Purchasing initiatives • Provide training for other Federal Facilities on EMS implementation • Expand tribal and state partnerships and Environmentally Preferable Purchasing Programs • Manage grants to design green electronic products • Promote green building materials with local governments |
| Reduce toxic chemical releases at Federal facilities | <ul style="list-style-type: none"> • Track TRI at Federal Facilities • Publicize results |
| Protect environment and promote stewardship by Federal government through input on Federal agency projects in accordance with NEPA | <ul style="list-style-type: none"> • Review and comment on all Draft EISs, and Final EISs with unresolved issues • Strengthen or develop interagency partnerships to facilitate resolution of NEPA issues (i.e., Caltrans, BLM, Bureau of Reclamation) |

Sub-objective 5.2.2

Prevent Pollution and Promote Environmental Stewardship by Business

Through 2008, reduce pollution and improve environmental stewardship practices in business operations by adopting more efficient, sustainable, and protective policies, practices, materials, and technologies.

Current Status

Region 9 is making progress toward this sub-objective, through active promotion of partnership opportunities with industry and compliance assistance efforts. We can demonstrate significant adoption of P2 (and accompanying environmental improvements) by businesses that have received assistance either directly through us or through grant funding. However, almost none of these results will be reflected on the TRI, which only captures emissions from the largest industrial



sources. These do not always represent the greatest risk nor are they always the most amenable to pollution prevention.

Strategy Highlights

Region 9's Pollution Prevention (P2) five-year priorities include supporting state and local P2 assistance programs with grants, reducing priority chemicals through industry partnerships, and using P2 as a tool of first choice in regulatory development and voluntary efforts.

Sub-objective 5.2.2

Prevent Pollution and Promote Environmental Stewardship by Business

| <i>Strategies</i> | <i>Programs and Tools</i> |
|--|---|
| Support state and local P2 assistance programs that successfully promote P2 adoption by businesses | <ul style="list-style-type: none"> • Support pollution prevention coordinator for each state • Support state and local P2 with P2 grants (select new projects, and manage existing projects) • Support the Western Regional P2 Network • Provide technical assistance materials to states and locals to provide targeted outreach |
| Promote voluntary partnerships with industry | <ul style="list-style-type: none"> • Add businesses to waste minimization challenge • Conduct Design for the Environment projects for priority chemicals (i.e., BFRs from foam and electronics) • Participate in National Electronic Product Stewardship initiative and other e-waste efforts |
| Promote P2 as regulatory tool | <ul style="list-style-type: none"> • Incorporate P2 in federal, state and local regulations (i.e., bans on solvent sinks and phase-out of PCE in dry cleaning) |
| Reduce Toxic Chemical releases by industry | <ul style="list-style-type: none"> • Track industrial releases of toxic chemicals through TRI • Publicize results |

Sub-objective 5.2.3

Business and Community Innovation

Through 2008, achieve measurably improved environmental performance through sector-based approaches, performance-based programs, and assistance to small business.

Current Status

The National Environmental Performance Track (Performance Track) program is designed to recognize and encourage top environmental performers - those who go beyond compliance with regulatory requirements to attain levels of environmental performance and management that benefit people, communities, and the environment. Region 9 has 27 current members in the program. To qualify for Performance Track, a facility must demonstrate that it:

- Has adopted and implemented an environmental management system (EMS) that



includes the elements specified below;

- Is able to demonstrate specific environmental performances and commit to continued improvement;
- Commits to public outreach and performance reporting; and
- Has a record of sustained compliance with environmental requirements.

Charter members expect to achieve the following results by FY 2004: reduce air criteria pollutants by 68 tpy and greenhouse gases by 940 tpy, reduce energy use by 20,000 Mwh/yr, reduce accidental releases by 7 fewer per year, reduce 8000 tpy of solid waste, 17 tpy of hazardous waste, increase recycling and composting and preserve 2500 acres of land in Scottsdale.

Region 9's Proposed Measures of Progress

- Total membership in NEPT for the region and by state
- Demonstrated results from NEPT through improvements in the following environmental categories: water use, energy use, total solid waste, air releases, water discharges, land preservation

***Sub-objective 5.2.3
Business and Community Innovation***

| <i>Strategies</i> | <i>Programs and Tools</i> |
|--|--|
| Add members to National Environmental Performance Track program | <ul style="list-style-type: none"> • Increase participants 10% each year • Conduct 2 site visits at each facility per year |
| Increase number of businesses using Environmental Mgmt Systems in Region 9 | <ul style="list-style-type: none"> • Work with businesses to remove regulatory and other barriers |
| Under Border 2012, increase facilities on border using EMSs | <ul style="list-style-type: none"> • Hold EMS workshops on border • Directly assist implementations of EMS where appropriate |

***Sub-objective 5.2.4
Environmental Policy Innovation***

Through 2008, achieve measurably improved environmental and economic outcomes by testing, evaluating, and applying alternative approaches to environmental protection in states, companies, and communities. This work will be targeted at improving the cost effectiveness and efficiency for regulatory agencies as well as regulated entities.



Current Status

Region 9 is evaluating alternative approaches to implementing our core programs, seeking equivalent or greater environmental results. In one such effort, we are examining flexible use of Clean Water State Revolving Funds (CWSRF) as a novel tool to improve water quality by addressing major sources of impairment, above and beyond improving municipal wastewater treatment. For example, municipal CWSRF projects may sponsor nonpoint source projects and estuary enhancements, in return for a reduced interest rate on their loan. The key to establishing a sponsor program is to structure the combination loans such that the municipal wastewater treatment system sees no increase in cost from their sponsorship of the expanded use project. With this flexibility, the CWSRF has the potential to be a primary financing source for comprehensive watershed management efforts, including habitat restoration and protection. Collectively, the States have spent approximately 8% of their total CWSRF funds on expanded use projects. We would like to see the percentage of loans for expanded use projects increase to 10%.

Region 9 also works actively with industries to develop and promote voluntary emission reduction programs through collaboration. Building on the past successes of our innovative partnerships in sustainable agriculture, we are working to integrate these approaches into priority air and water regulatory programs. Specifically, we are partnering with the Almond Growers association to reduce application of organophosphate pesticides (e.g., diazinon) and to apply Best Management Practices, such as cover cropping, to minimize dust releases. We will expand our existing work with the dairy industry via the Dairy Quality Assurance Program and biologically integrated farming systems to reduce particulate matter and ozone, as well as nitrate contamination of waters. Integral to these broad partnerships is targeted use of USDA funding and sustainable agriculture funding through FQPA partnerships program. Also, we are capturing mercury recovered from gold ore processing by partnering with Nevada gold mines, NDEP, and University of Nevada-Reno (see Goal 4.1). We are also focusing on community-based efforts in several geographic areas (see Goal 4.2.2) to reduce diesel related emissions in the trucking industry. (See Appendix for examples of specific collaborations.)



***Sub-objective 5.2.4
Environmental Policy Innovation***

| <i>Strategies</i> | <i>Programs and Tools</i> |
|--|---|
| Work in partnership with government, industry, academia and the public to demonstrate alternative, voluntary regulatory or technical approaches to achieve environmental improvement | Continue existing voluntary approaches, and initiate others. Some current collaborative initiatives include: <ul style="list-style-type: none"> • CALFED Bay Delta program • Lake Tahoe Watershed Protection Program • Vernal Pools Stewardship Program • Citizen-Based Water Quality Monitoring Programs (Richmond, Oakland, etc.) • Voluntary Air Emissions Reduction with Nevada Gold Mines • Community-Based Toxics Reduction Partnerships (various communities) • Green Building Partnership • Bay Area Rapid Transit Sustainable Transit Leadership Project • California And Arizona Green Business Program • Region 9 Sustainable Agriculture Program • Region 9 Healthy Schools Initiative • Region 9 Hospital Waste Initiative |

**Objective 5.3
Build Tribal Capacity**

Through 2008, assist all federally recognized tribes in assessing the condition of their environment, help in building their capacity to implement environmental programs where needed to improve tribal health and environments, and implement programs in Indian country where needed to address environmental issues.

Current Status

Protection of tribal environmental health and resources is an important part of the work of Region 9. The 146 tribal governments in the Region represent nearly half of all Indian land in the United States. More than 10% of our Region is tribal land, including many unique and critical ecosystems and landscapes. EPA has a unique role -- exclusive of state and local jurisdictions -- to ensure that tribal resources are protected. Region 9 directly implements every federal environmental program on 145 of the 146 reservations.

Compared with the rest of the United States, public health and economic conditions on Region 9 reservations are dire. For example:

- More than one-third of reservation homes are at or below the poverty level;
- 27 percent of homes lack complete plumbing;
- Nearly half of tribal water systems fail to meet Safe Drinking Water Act requirements;
- More than 700 open dumps are found on reservation lands;



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Over a third of Region 9 tribes breathe air that does not meet NAAQS.

### **Strategy Highlights**

In order to meet these challenges, Region 9 must devote resources for tribal program implementation in every major program area—regardless of whether funding or positions are allocated through national resource models. Ensuring compliance by facilities located on tribal lands places extraordinary demands on resources for inspections, permit writing, and compliance assistance.

Partnerships with tribal governments are crucial to our success, and continued development of tribal environmental programs plays an important role in our Regional strategy. Tribes have made rapid progress in program development through the General Assistance Program (GAP). With over 90% of tribes in the Region now developing environmental programs, we are well on our way to ensuring that all tribes have access to environmental program support. We are also making progress toward increasing implementation of programs through delegations issued to tribes, and increasing the number of tribes with environmental monitoring activities. In order to continue this progress, continuous, reliable funding for tribal programs must be provided, as well as environmental education for Tribal members.

The pesticide program will continue to support tribes in building appropriate infrastructure to address pesticide concerns. This work includes but is not limited to technical assistance, continuation and project grants and on site support related to tribal pesticide code development, inspections and oversight of agriculture use pesticides, inspections and oversight of structural use pesticides, and enforcement document development.

Region 9 sets goals and tracks progress by its tribal programs annually, through a Regional Tribal Operating Plan. The following are elements of Goal 5 work addressed in the annual plan.

#### Region 9's Proposed Measures of Progress

- Number and/or percent of population served by community water systems in Indian Country receiving drinking water that meets all applicable health-based drinking water standards
- Number and/or percent of households on tribal lands lacking access to basic sanitation
- Number of Tribal based air monitoring projects started
- Number of Tribal based air monitoring projects collecting data
- Number of Tribal air monitoring projects being implemented, with data showing improvement to the air at the local level
- Number of confirmed releases at Tribal UST sites for Region 9
- Number of confirmed releases at Tribal UST sites for states
- Number of Tribal UST cleanups completed for Region 9
- Number of Tribal UST cleanups completed for states



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- Number of open dumps on Tribal lands
- Number of approved landfills on Tribal lands

**Objective 5.3**  
**Build Tribal Capacity**

| <i>Strategies</i>                                                                            | <i>Programs and Tools</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|----------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Support growing environmental presence in tribes                                             | <ul style="list-style-type: none"> <li>• Provide funding and technical assistance for environmental program development to 131 tribes and 3 coalitions: e.g., cooperative agreements, technical assistance, direct implementation of programs</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Build government-to-government relationships                                                 | <ul style="list-style-type: none"> <li>• Provide training for EPA staff and others working in Indian Country</li> <li>• Co-sponsor annual EPA/Tribal Conference</li> <li>• Hold RTOC meetings</li> <li>• Publish monthly newsletter</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Influence Regional and National tribal policy                                                | <ul style="list-style-type: none"> <li>• Serve as back-up Lead Region for tribal activities in FY 2004</li> <li>• Lead Region in FY 2005</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Assess and improve tribal health                                                             | <ul style="list-style-type: none"> <li>• Work on tribe-specific health issues as appropriate (examples: Klamath water/fisheries; Torres-Martinez trailer parks; hazardous waste permitting on tribal lands)</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Improve solid waste management                                                               | <ul style="list-style-type: none"> <li>• Continue to use GAP program to ensure that open dumps are closed and effective solid waste management and recycling programs are implemented</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Support compliance and enforcement on tribal lands                                           | See activities under 5.1 above                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Water programs: Ensure tribal communities have access to safe water and wastewater treatment | <ul style="list-style-type: none"> <li>• Construct and rehabilitate water infrastructure through Indian Set-Asides of State Revolving Fund Programs (SDWA/CWA)</li> <li>• Manage direct grants, Interagency Agreements with IHS (existing and new projects)</li> <li>• Assist tribes in developing water quality programs and watershed protection programs through PPGs</li> <li>• Review Federal assistance eligibility determinations (Review "Treatment as State" applications)</li> <li>• Direct implementation of UIC program in Indian Country</li> <li>• Delegation of primary enforcement authority to tribes where appropriate</li> <li>• Provide training as appropriate</li> </ul> |



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## **Objective 5.3 Build Tribal Capacity**

| <i>Strategies</i>                                                                                                                            | <i>Programs and Tools</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|----------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Waste programs:<br/>Assist tribes to assess the condition of their land, build capacity, and improve tribal and environmental</p>         | <ul style="list-style-type: none"> <li>• Provide technical assistance and GAP and solid waste grants for cleanup and closure of open dump sites and noncomplying dumps</li> <li>• Assist tribes in development of new landfills and solid waste management program improvements</li> <li>• Manage solid waste grants and cooperative agreements to increase recycling and waste diversion on tribal lands</li> <li>• Evaluate eligibility for obtaining LUST Trust Funds for assessment and cleanup of LUSTs on tribal lands</li> <li>• Work with tribes to reduce backyard burning</li> <li>• Promote Pollution Prevention with tribes and IHS at tribal healthcare facilities</li> <li>• Pilot initiatives to reduce dumping on tribal lands in border areas, and recycle dumped materials</li> <li>• Provide training on RCRA requirements for waste management and tanks management</li> </ul> |
| <p>Air programs:<br/>Work in partnership with tribes and states to build tribal program capacity and improve air quality on tribal lands</p> | <ul style="list-style-type: none"> <li>• Support and participate in Maricopa Joint Air Toxics Assessment Pilot Project w/Gila River Indian Community and ADEQ</li> <li>• Participate in Tribal Air Monitoring Support Center (TAMS) to support tribal air quality monitoring and regulatory issues</li> <li>• Provide training as appropriate</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <p>Pesticides programs:<br/>Promote safe handling of pesticides on tribal lands</p>                                                          | <ul style="list-style-type: none"> <li>• Provide worker protection training: Tribal Certification/Training Programs</li> <li>• Provide other training as appropriate</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

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## Chapter Three

# Cross-Goal Strategies and Issues

Many of EPA's efforts -- strengthening our partnerships with states and tribes, improving the quality and availability of the environmental and health information on which we base our decisions, and improving our management systems to achieve better results -- contribute to our progress toward all five of our goals. This cross-Agency, cross-media work includes both support functions, such as administrative and financial management or legal services, and the strategies or means we employ to help accomplish our objectives, such as science and research. While portions of the strategies for these efforts are annotated within each of the 5 goal strategies contained in Chapter 2 of this document, we believe the reader may better understand the comprehensive nature of these efforts by seeing them described in one location

Each of these efforts is a significant component of our work and plays a critical role in the accomplishment of all of our goals. This chapter highlights a few of these cross-goal issues and strategies: Agriculture, Human Capital, Science, Information Management, Southern California, and Sensitive Populations. For each, we will discuss the region's approach, explain how the strategy will contribute to the achievement of our goals, and describe some of the activities we will conduct and results we hope to achieve using this approach.

## Agriculture

Region 9 States and Tribes encompass the most productive agricultural region in the country. With farmland livestock operations spread across 245 million acres (50% of the Region's land area), the region produces an incredibly diverse array of agricultural commodities (California alone produces more than 350), many not grown anywhere else in the country. The region includes 21% of the nation's milk cows, produces 50% of the nation's produce, and employs 25% of the nation's farm workers. California agriculture is a \$25 billion industry. It is home to richest agricultural region in the world (San Joaquin Valley), accounts for 12% of total US agriculture exports, is the leading producer of more than six dozen commodities, and the sole producer of more than one dozen crops. California is also the nation's leading agricultural exporter, with an annual export value of more than \$6 billion. Arizona, with farmland that covers about half the state, ranks 2nd nationally in production of several agricultural commodities, including cotton, lemons, lettuce, and cantaloupe. With its year-round growing season and isolation, Hawaii is an ideal location for developing new seed crops and supports a diverse mix of agricultural production. Long known for sugarcane and pineapple, the state also ranks first nationally in cash receipts from coffee, macadamia nuts, papayas, and bananas. Although not as diverse as the other states in Region 9, Nevada also has a productive agricultural industry, dominated by the beef and hay production.



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Such intensive agricultural production over such a vast area has significant impact on Region 9's environmental quality and human health. Agricultural sources of air pollution include particulate matter from animal feed lots, farm machinery, road dust, burning, plowing and harvesting; ground level ozone from volatile organic compounds (VOCs) from dairy manure and pesticides; nitrogen oxides emitted by farm machinery; ammonia from animal feed lots; stratospheric ozone depletion from the soil fumigant methyl bromide; and methane (a global warming gas) from animal feed lots. Agricultural pesticides, fertilizers, silt, and salts in irrigation drainage and other agricultural runoff are the nation's leading source of water pollution. California alone uses 20% of the nation's pesticides. Between 1991 and 1998, the total volume of pesticide use in the state rose 40%, and the use of the most toxic materials increased 27%. All of the Region 9 states are facing their own unique pesticide problems. Arizona and Nevada, with the fastest growing populations in the country, have experienced a rapid rise in consumer and structural pesticide use, use fueled by tremendous new home construction and sprawl-style commercial development. Both the number of structural pesticide companies in operation and the amount of structural pesticides used have risen sharply (Arizona, since 1990, has experienced a 40% increase in the use of termiticides such as Termidor and Premife). Hawaii, too is experiencing increased pesticide use. With its diversifying agricultural economy, new pesticides continue to be introduced to protect the new crops, threatening an already fragile island environment. Moreover, agriculture consumes about 85 percent of California's water supply.

In a region with such diverse and significant agricultural production and issues, it is important to have a well defined goal to guide our work. That goal is to attain measurable environmental goals related to agriculture by collaborating with our federal, state and local partners, the agricultural community and others to achieve primary air, water and human health targets. More specifically, we have made a strategic choice to pay particular attention to the issues as they are demonstrated in the San Joaquin Valley (SJV) of California. This choice means that while we will consistently support our state and local regulatory partners in Arizona, Hawaii, Nevada as well as tribal governments and pacific islands in implementing the federal regulations related to agriculture, we will assert extra effort and resources in addressing the very significant and complicated agricultural problems in the San Joaquin Valley.

Over the next few years, the focus of much of our effort will be to address agriculture-related air and water issues in the San Joaquin Valley. Our strategy includes both regulatory and non-regulatory tools, will focus on working collaboratively and strategically with the United States Department of Agriculture, the Department of Energy and State and local regulators, and will include a proactive communication component to address issues related to Concentrated Animal Feeding Operations (CAFOs) and agriculture-impaired water bodies in the area.

To single out one major priority, the entire regional agriculture staff will be working to address air and water impacts from CAFOs in California. This work will be guided



and supported through the work of the San Joaquin Valley Federal Dairy Waste Initiative, a coordinated effort to build upon -- not duplicate -- existing dairy manure management and treatment programs, and to provide federal funds, vision and support to initiate new projects appropriate to this entire geographic area. Members of this federal coalition include EPA Region 9, USDA Rural Development, USDA Natural Resources Conservation Service, and the US Department of Energy Seattle Office. By addressing dairy manure management issues on a community and/or regional basis, we intend to develop opportunities that may not be available to producers individually. Community participants or beneficiaries of these projects may include groups of dairy producers, crop farmers, urban or rural residents, municipalities, utilities, wastewater treatment facilities, and others.

In addition to this work focused specifically on the San Joaquin Valley, the Air, Water and Pesticides programs as well as the Ag Programs Office (formerly the Ag Initiative) will continue to work to assure continuing environmental and public improvement by lessening agricultural impacts throughout the Region.

These program specific activities will include:

### **Air Program**

- Support replacement of older diesel irrigation pumps
- Implement of Title V permitting for agricultural sources in California
- Develop of air credits for agricultural operations
- Develop and implement flexible best available control measures (BACM) for agricultural operations

### **Water Program**

- Develop and implement Total Maximum Daily Loads (TMDLs)
- Enhance Coordination with NRCs and State Environmental Agencies in each state

### **Pesticides Program**

- Continue support of a strong state enforcement presence
- Ensure the protection of endangered species from the effect of pesticides
- Support development and implementation of tribal pesticide programs
- Work with our state regulatory partners to strengthen the protection of agricultural workers



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## Agriculture Programs Office

- Support coordination efforts across media programs to address the most significant environmental impacts from agriculture
- Support and promote market-driven incentives for a more sustainable agriculture
- Address broad agency agriculture policy issues as they arise

## Superfund Program

- Clean up of pesticides at superfund sites

## Human Capital

We will implement our Human Capital Strategy by integrating workforce planning, employee development, and targeted recruitment with established Agency processes and strategic planning and resource management. It will link succession planning for strong leadership and continue the development of regional staff to attain the right skill sets and competencies to meet program goals and objectives. Region 9 will continue to maintain a strong commitment to diversity. We are guided by our vision to be a diverse and inclusive workplace, where each person is valued and respected: to be a workplace where all the talents and attributes of our workforce are fully utilized. We will evaluate the effectiveness of our human capital programs to ensure that they are cost effective and produce results linked to program performance to meet organizational goals.

## Strategic Alignment with Mission

A regional goal is to effectively link human capital investments to EPA's mission, regional priorities, and strategic and budget planning. By 2004, we will integrate workforce planning, employee development, and targeted recruitment to ensure that the skill mix among staff in the Region more closely aligns with critical regional needs. We will implement a workforce assessment tool to assist programs in workforce planning. We will factor our human capital needs into strategic program planning and budgeting processes.

The Regional Strategic Workgroup will further assist to communicate human capital roles and responsibilities across divisional programs and roll out human capital planning activities to all employees at every level in the region.

## Workforce Planning and Deployment

Workforce planning is an integral, strategic, and tactical approach for addressing many of EPA's human capital issues. We will employ a workforce assessment planning tool that EPA headquarters is developing to more accurately gauge skill and competency gaps in Region 9 staff. By 2004, we will engage in a more in-



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depth analysis of how well our training program is tied to agency and regional core competencies, and evaluate “Return on Investment” in relation to training expenditures. We will assess the effectiveness of training by evaluating and monitoring key indicators such as improved job performance, teamwork, staff versatility, increased communication regarding career development, and job satisfaction.

A regional goal is to develop a succession planning strategy for meeting future human capital needs. Succession planning in our region has become increasingly important with EPA anticipating a significant increase in retirements over the next five years. We will refine our retirement projections and engage with regional management to better anticipate critical staffing gaps, and tie this information into a workforce development strategy. We will emphasize retention of employees to ensure that we retain valuable staff with essential core competencies.

Finally, we will use our improved automated exit interview process to collect and evaluate data to help us address issues that lead to staff departures. This supports the President’s e-Government initiative to improve efficiencies in human capital processes.

## **Managing Leadership and Knowledge**

Due to the anticipated loss of managers and employees who will be retiring or have retired, Region 9 launched a formal Career Development and Mobility program in 2003: Executive Rotation Program, Management Rotation Program, and Staff Rotation Program. These programs provided the region with opportunities for strengthening leadership, promoting continuous learning, and enabling knowledge transfer.

In 2004, we will continue the latter mobility programs and provide classroom training, mentoring, and coaching. These mobility assignments will increase regional cross-training opportunities for senior managers to gain exposure to regional and national issues from a broader cross-division perspective. Movement creates trickle-down opportunity for second-level managers to rotate and grow at senior levels (GS-14/15s). We will continue to offer 360 feedback process for managers to solicit information on managerial competencies from multiple sources. We will promote continuous learning for managers by continuing our Managers Forum and managers speakers series. We will continue to evaluate our workforce development programs to improve or refine our leadership development, and ensure that it is in line with mission critical projects and priorities.



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## **Developing a Performance Culture**

Vital to the success of EPA's mission in Region 9 is the development of a performance culture. In 2004 we will continue to build a results-oriented workforce using a three part strategy: EPA's PERFORMS program, promotion of workforce diversity, and continuing our positive working relationship with our unions.

In 2004 we will continue to promote the agency's and region's awards programs. In an effort to reduce the "crunch time" of award nomination deadlines, an effort will be made to more widely disperse award nomination deadlines for regional and agency wide awards. This should ensure that managers are more effectively using the various monetary and non-monetary recognition tools to motivate and recognize employees. Changes to one of the bargaining-unit contracts may require modifications to the Regional Awards and Recognition Policy.

## **Recruiting and Retaining Talent**

In order to attract and hire the best and most talented employees with key competencies for critical regional positions, we will work with the Office of Civil Rights to implement a new effort to more accurately measure and assess the region's success in hiring diverse, qualified candidates. We will evaluate the effectiveness of outreach and recruitment efforts by developing a formula for calculating the region's "Return on Investment." This formula will include factors such as new hire quality, time to fill vacancies, customer satisfaction, and total staffing costs (e.g., job fair registration, advertisements, recruitment material). Quality and satisfaction metrics will be used to adjust the outreach and recruitment strategy to capitalize on those events that prove to be most successful in yielding the best possible new hires. We will continue to capitalize on the success of flexible hiring authorities, e.g., Federal Career Intern Program (FCIP) to attract and hire talented people.

To ensure that new employees get a good start in Region 9, we will revise and expand our New Employee Orientation Program to more effectively meet the needs of all new hires. In addition, we continue to expand the scope of our PMI, EIP, and FCIP intern programs. In 2004 we will implement a curriculum of monthly activities for all interns consisting of guest speakers, book readings, field trips, and training. Through increased exposure to EPA, our mission and staff, we hope that this expanded program will improve retention of our interns.

We will continue to support our quality of worklife initiatives to retain our valuable human assets. These initiatives include: flexible work schedules, child care center, lactation room, fitness center, and special classes/events (health fair, financial planning, etc.). In addition, we will continue to promote employee benefit programs (health insurance, life insurance, retirement, thrift savings plan, etc.).



## **Civil Rights**

Region 9 is committed to developing and supporting a model Equal Employment Opportunity (EEO) Program as provided by the Equal Employment Opportunity Commission's (EEOC) management directive.

The directive provides new reporting requirements, self-assessment, workforce requirements, and six essential elements for a model EEO program, as bulleted below:

- Demonstrated commitment from agency leadership;
- Integration of EEO into agency's strategic mission;
- Management and program accountability;
- Proactive prevention of unlawful discrimination;
- Efficiency; and
- Responsiveness and legal compliance.

These six elements serve as the foundation upon which we will adapt our current program.

## **Science**

EPA has identified reliance on sound science and credible data among the guiding principles we will follow to fulfill our mission to protect human health and the environment. EPA depends on science, technology, and scientifically defensible data and models to evaluate risk, develop protective standards, anticipate future health and environmental threats, and identify their solutions. Our approach to addressing science issues is centered on generating and using scientific information based on science priorities ("doing the right science") and sound science practices ("doing the science right").

Region 9 promotes sound science through a number of ongoing collaborative efforts. The Regional Science Council and Biological Technical Assistance Group are active regional committees working to promote sound science. In addition, Region 9 participates in a number of ongoing efforts with headquarters, ORD and other stakeholders to address national and regional science priorities.

### **Science Priorities ("Doing the Right Science")**

Science priorities in Region 9 are driven by the practical needs arising from implementation of regulatory programs and development of solutions to local and regional environmental problems that reflect the unique environments of Region 9. The identification of science priorities for Region 9 is an ongoing part of our strategic planning, and the following is a partial list of some of the science priorities critical to addressing the Region's environmental priorities.



- Research to quantify air emissions from agriculture sources
- Control technologies for air emissions from agriculture sources
- Monitoring techniques to identify diesel emission sources
- Improved methods for identifying human pathogens in water and determining the source of pathogens (human vs animal-derived)
- Research to determine perchlorate uptake by food crops and livestock
- Analytical methodologies for emerging chemicals (e.g., metabolites of TCE)
- Science policy decisions on chemical toxicity factors for TCE and perchlorate
- Risk characterization and assessment methodologies for vapor intrusion into buildings
- Optimization techniques for cleanup remedies, notably for groundwater cleanups

Significant emerging environmental issues often come to light at a regional level, with perchlorate and MTBE being notable examples in Region 9. Our ability to effectively respond to these issues depends on the timely development of the science necessary to understand the nature and scope of the risks associated with emerging environmental issues. Region 9 will continue to take a leadership role to identify and develop resources for addressing these needs.

### **Science Practices (“Doing the Science Right”)**

Sound science depends on organized investigations and observations conducted by qualified personnel using documented methods and leading to verifiable results and conclusions. Doing science right requires an investment in developing science expertise available to the region, through increasing the expertise among region staff, improving access to outside expertise, and promoting science expertise in states and tribes. It also requires the use of sound methodologies and practices in conducting regional science, including the implementation of effective quality assurance programs.

To develop improved access to science expertise, we will work closely with ORD and others to increase science training opportunities available in Region 9, we will promote the exchange of science staff with ORD. We will also increase our access to academic and technology research funded by ORD through grant programs such as “STAR” and “SBIR.”

To promote the use of sound methodologies, we will work closely with EPA headquarters and others to foster the development of improved methodologies, in particular in the areas of risk assessment, modeling, and testing. We will also seek to leverage the unique science resources in academic and other institutions in Region 9 to better integrate advances in science methodologies into the region.

Our quality assurance (QA) program is designed to ensure that data collection activities provide the needed type, quantity and quality of data. The newly revised Region 9 Quality Management Plan provides regional guidance for ensuring a strong quality assurance program throughout the region. We will conduct training and QA



audits to foster adherence to this plan.

The primary source for regional analytical needs is the Region 9 laboratory. To strengthen the methodologies in place at the Region 9 laboratory, the lab will complete a National Environmental Laboratory Accreditation Conference (NELAC) accreditation in 2004. Efforts also continue to expand the analytical capabilities of the laboratory in support of priorities such as air toxics, homeland security and water quality.

## **Environmental Information**

Region 9s Environmental Information Strategy is to enhance environmental results through the improved use of quality environmental information by EPA decision makers, states, tribes, other partners, and the public. Our focus is on three areas:

- Information Management
- Management for Results
- Information Service Delivery

### **Information management**

Today's business drivers are increasingly complex environmental issues which require integrated, cross-media program information. We need to be able to provide a secure computing environment with high quality, meaningful data to/from a variety of sources, including our partners, the regulated community, and the public.

Strategically, EPA, the state and tribes must be able to exchange information seamlessly. We will continue to actively promote the National Environmental Exchange Network and Central Data Exchange through aggressively managing the grant program and the establishment of trading partner agreements (TPAs) with our states. The Exchange Network is a joint project for sharing environmental data between EPA, states, and other partners over the Internet. To accomplish this, it is necessary for network participants to develop hardware and software that enable their computer systems to communicate and exchange data with EPA's computers. Each state will strive to develop and implement by 2007 a node (portal) through which data can be exchanged. TPAs or other agreements may be developed with each state to address data standards for the exchange of data as needed. Additionally, the states working with EPA will address a number of long standing data exchange issues, i.e., California PCS data by 2008 (assuming EPA's PCS legacy system is compatible with CDX) and the multiple CUPAs within EPA by 2008 (assuming funds are available) which should also help streamline the information collection processes.

### **Management for Results**



Historically, EPA has focused its attention reporting on activities (what we do) and outputs (what we produce), but more is required to meet the growing demand for information on what environmental results we want to achieve, e.g., clean air and water. Region 9 is focused on identifying and collecting the kind of data that will allow us to connect what we do to the results we want to achieve. We are investing in the development of environmental and performance measures which will be used to assess and articulate the effectiveness of our programs. Environmental indicators are measurements that track environmental conditions over time. Indicators help measure the state of our air, water, and land resources, the pressures on them, and the resulting effects on ecological and human health. The region will complete the second phase of its environmental indicator/performance measure project in November of 2004. We will, in this phase, refine existing measures and data sources, and establish environmental indicators/performance measures, and baseline data for the US/Mexican Border.

### **Information Service Delivery**

Region 9 is committed to use E-government tools to communicate environmental information. Over the past eight years, the Internet and other new computer technologies have transformed the way EPA provides information and services to the public. Many of our programs, activities and priorities have been captured and broadcast worldwide via the Web. The public increasingly depends on the credibility and reliability of government Web sites, so it is essential that information on the Region 9 area of the EPA Web site meet those standards.

To that end, we will continue to play a leadership role in the topical reorganization of EPA's web site, in coordination with national program offices and EPA regions nationwide. In addition, we will continue to publish informative front-page featured stories, time-sensitive documents, requests for grant proposals, press releases, and other important notices. We will also continue to look at ways to provide easy-to-use services which are intuitive, easy to locate, and which have the ultimate goal of encouraging effective communication between EPA, the public, its partners, and the regulated community.



## Southern California

Southern California is home to a huge and rapidly growing population, a globally significant economy, and many important environmental issues and opportunities. Because of the area's significant contribution to our region's environmental profile, Region 9 has chosen to establish a separate field office operating in the Los Angeles area to help address the unique needs of this geographic region. It is therefore important to include a discussion of priorities and strategies for this particular geographic area within this Cross-Goal Strategies and Issues Chapter.

### Creation of New Southern California Field Office

The Regional Administrator has created a new Field Office, expected to open in Spring 2004, which will provide the Agency with in-depth knowledge of southern California's many key players and issues.

- Open Field Office at 600 Wilshire in Spring 2004
- Identify opportunities to advance EPA programs in southern California
- Represent EPA at events and with agencies, businesses, and elected officials
- Both the City of Los Angeles and Los Angeles County have environmental departments, as well as environmental and first-responder functions in their public works and fire departments, that offer potential leveraging opportunities for the Region. The Field Office will schedule meetings to explore and capitalize on these opportunities.

### Press and Media Relations

- Publicize opening of the Field Office, including ribbon-cutting event
- Promptly provide EPA press response and increase press availability
- Advance EPA's agenda on clean air, clean water, partnerships such as Agency's work with Disney Company, waste reduction, grant awards, and enforcement
- Increase EPA presence through media outreach to better reach ethnic groups that are currently unaware of EPA's educational campaigns

### Geographic Characteristics

The Counties of Ventura, Los Angeles, Orange, San Diego, and the western portions of Riverside and San Bernardino Counties together constitute urban southern California, having the following characteristics:

- Its geographic area covers more than 12,000 square miles
- Its gross product of \$477 billion is exceeded by only 10 nations
- Its population of over 19 million is over 40% of the total population of Region 9, the second most populous area in the United States. Los Angeles County alone is larger than the combined area of Delaware and Rhode Island, covers 4,083 square miles, includes 76 miles of coastline, is the most populous county in the



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US (outranking 42 states), has a population larger than the population of Arizona, Hawaii, and Nevada combined.

- Five of the ten fastest growing counties in the US (2000 to 2002) are in southern California (all counties named above except Ventura).
- The Ports of Los Angeles/Long Beach are the 3rd largest port in the world, accounting for approximately 40% of the imports/exports of the US.
- The Los Angeles area media market is the 2nd largest in the US, with a diverse audience speaking multiple languages, and a huge cross-section of mainstream and ethnic press.
- Los Angeles Unified School District is the largest school district in the nation.
- Los Angeles County has over 25,000 non-governmental organizations.
- 50% of the Congressional delegation from Region 9 is from southern California.

### Environmental Issues

Southern California's environmental issues are similarly significant.

- Air quality in Los Angeles (South Coast Air Quality Management District) is still among the worst in the country for ozone, carbon monoxide, and PM-10. South Coast is in extreme nonattainment for 1-hour ozone, serious non- attainment for PM-10, and serious nonattainment for carbon monoxide.
- Because of the year-round suitable climate and significant tourism, southern California has more beach-use days than the rest of the US combined, and suffers from numerous beach closures primarily attributable to urban run-off and stormwater problems.
- 19 million people and a vigorous economy generate significant volumes of waste, and operating landfills require expansion. Some historic, closed landfills present problems.
- The majority of Region 9's Superfund sites are located in the southern California area.
- The importance of the Ports of L.A./Long Beach and southern California's many national-scale events and tourist attractions present significant potential emergency response needs.

The work by the Field Office will complement the following Regional priorities and actions in southern California in Fiscal Year 2004:

### Air Programs

The high levels of ozone and PM10 that exist in southern California and the enormous emission reductions necessary to bring the area into attainment with air quality standards are driving a search for every source of emission reductions. In spite of aggressive state and federal standards for new equipment, such as diesel trucks, the slow fleet turnover will delay the benefits obtained from more aggressive standards for many years. The region will work cooperatively with the regulatory and non-regulatory stakeholders to identify and implement retrofit and other



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programs to reduce emissions from these kinds of sources. These programs may include combining federal funding with other funding sources as well as providing technical assistance.

The region will also pursue measures that are uniquely under the purview of the federal government.

**Air Toxics:** Region 9 has established six air toxics pilot projects which are cooperative efforts between EPA, state and communities in environmental justice areas. Two of the six are Los Angeles Airport and Port of Los Angeles/Gateway Cities.

## Water Programs

Region 9's most significant priorities are developing Total Maximum Daily Loads (TMDLs), especially to meet Consent Decree deadlines, and related municipal stormwater permits in the Los Angeles area. EPA supports watershed groups who are preparing third-party TMDLs. In addition, Santa Monica Bay is included in the National Estuary Program, and implementation efforts are underway in a range of areas including invasive species management, controls for stormwater management, support for TMDL development, wetlands restoration, obtaining conservation easements, and public outreach.

**Water Quality Monitoring:** A sustained, long-term regional monitoring effort using the EMAP design and methods is underway for the Southern California Bight. The multiple partnership of monitoring agencies, managed by the Southern California Coastal Water Research Project (SCCWRP), just completed the sample collection for the third regional monitoring effort throughout the Bight. This sustained effort has grown from about 13 participating agencies in 1994 to about 80 today. The Region's Water Division continues to participate on the SCCWRP Commission and the Technical Advisory Committee for the Bight to help guide this effort as well as other coastal research, including sediment quality criteria development, comparable municipal wastewater discharge monitoring programs, and rapid monitoring methods.

Clean Water Act (CWA) 404 Program, and management of dredged materials at the Ports of LA/Long Beach:

- On-going coordination with Riverside County Community Environmental Transportation Acceptability Process (CETAP) Cajalco-Ramona corridor, including preparation of Purpose and Need/404 Project Purpose, development of alternatives, and coordination with applicable resource management plans.
- Southern Orange County Transportation Infrastructure Improvement Project (SOCTIIP) on-going coordination with the interagency collaborative on the selection of the Least Environmentally Damaging Practicable Alternative (LEDPA) and measures to avoid, minimize, and offset unavoidable impacts to waters of the US in anticipation of a 2004 release of the Final Environmental Impact Statement for this project.
- Work with the Los Angeles Region Contaminated Sediments Task Force on



completion of a strategy in Summer 2004 for the dredging and disposal of contaminated sediments from the Ports of LA/Long Beach.

### **Waste Programs**

**Waste Reduction:** As part of Region 9's focus on waste reduction and conservation for specific waste streams and sectors significant in southern California, efforts will focus on construction and demolition debris, green building, hospitals, government, chemical reduction partnerships, partnerships with stadiums and large entertainment venues, the travel industry, and the television and entertainment industry. Southern California's many partnership opportunities are a focus for the WasteWise program.

**Waste management and remediation:**

- Continue to work closely with the Los Angeles Regional Water Quality Control Board to bring contaminated groundwater migration under control at seven petroleum refineries and terminals in the West Coast Groundwater Basin, and assure protection of this important source of drinking water from historical releases at these facilities. Four facilities in the Carson area are expected to present a cooperative regional investigation and flow modeling plan for EPA and Regional Board approval and oversight, in consultation with the California Water Service Company, Water Replenishment District, and LA County Department of Public Works. Two of the facilities are expected to complete investigation to assure control of contaminated groundwater.
- Complete work with the City of Los Angeles Brownfields program to revitalize two abandoned gas stations, one located in San Pedro and the other in the Crenshaw district of Los Angeles.

### **Superfund Programs**

**Superfund Sites/Perchlorate:** The San Gabriel Valley and San Fernando Valley groundwater sites contaminated with perchlorate are both basin-wide sites covering an area of up to 30 square miles, impacting the drinking water supplies of thousands of people in a short amount of time. Other important perchlorate sites in southern California include Baldwin Park and Rialto-Colton.

**Brownfields:** City of Los Angeles is a Brownfields Showcase Community and EPA has assigned staff to work with City.

**Superfund Community Involvement:** Key sites for Field Office Community Involvement staff are Montrose, Del Amo, Brown and Bryant, South Bay Asbestos, Pemaco, Cooper Drum, and San Gabriel. Community involvement includes outreach to non-profit, community based, grass-roots groups to let them know that an EPA Community Involvement Coordinator is based in Southern California, as well as attendance at different community events to meet people, show representation, and offer information about EPA programs, projects, and issues.



Emergency Response:

- Open emergency response warehouse in Signal Hill in Spring 2004
- Continue to improve response readiness and further develop emergency response relationships in southern California. A significant activity in FY 2004 will be participating in the Coast Guard's Spill of National Significance (SONS) exercise in April 2004, a dual spill scenario in Long Beach and San Diego.
- Conduct responses as needed

Homeland Security: Region 9 is building the capacity to meet or exceed the current annual average number of emergency responses (25 hazardous material or petroleum releases), including the emergency response warehouse in Signal Hill, California. Southern California's vulnerabilities in terms of port, industrial, and tourism/entertainment venues need to be addressed in contingency planning.

**Toxic Release Inventory (TRI) and Lead Programs**

Both are priorities in the Los Angeles area, which has a large number of facilities that report under TRI and is a high risk geographic area for lead.

**Environmental Justice (EJ) Communities**

Areas of EJ focus include neighborhoods affected by the Los Angeles International Airport expansion, Port of Los Angeles/Gateway Cities air toxics initiative, Pacoima, and Barrio Logan in San Diego.

**Enforcement**

Southern California's regulated universe includes thousands of permittees in each of EPA's major regulatory programs (air, water, waste) and thus represents a target-rich environment for inspecting facilities and taking appropriate enforcement action, both civil and criminal, when non-compliance is found. Focus areas should include national and regional enforcement initiatives, sources/sectors with low compliance rates, communities with EJ and/or air toxics concerns, and the auto recycling sector. At the other end of the compliance spectrum, southern California's many corporations and businesses provide numerous potential Performance Track applicants.



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## Criminal Enforcement

Continue criminal enforcement activity working with EPA Criminal Investigation Division in Pasadena and the US Attorney. Publicize key cases and case milestones, working with the Field Office Press Officer.

## Sensitive Populations

Interest in children's environmental health continues to grow with the recognition that existing environmental programs and health standards may not sufficiently protect children. Children generally eat more food, drink more water, and breathe more air relative to their size than adults do, and consequently may be exposed to relatively higher amounts of contaminants in these media. Children's normal activities, such as putting their hands in their mouths or playing on the ground, create opportunities for exposures to contaminants that adults do not face. In addition, environmental contaminants may affect children disproportionately because their immune defenses are not fully developed or their growing organs are more easily harmed. Damage to developing organ systems may carry lifelong consequences.

Protecting children's health has become an integral part of EPA's mission. The agency is taking many actions to make our environment a better one for children. We will continue to implement specific children's health related programs (e.g., lead program, Indoor Air Quality Tools for Schools) as part of our ongoing mandate. In addition, the children's health program will identify and address cross-program children's health issues in a way that makes the most of limited resources and enhances program-specific efforts through more streamlined information sharing and increased economies of scale.

A few children's health facts:

- In Region 9 there are about 3.1 million kids under 5 (about 19.2 million nationwide) and 11.5 million kids under 18 (about 76 million nationwide).
- Cancer is the leading cause of death by disease among children between 1 and 19 years of age in the US. It is the third most common overall cause of death, preceded only by intentional injuries and accidents.
- About 430,000 American children (approximately 2 percent) ages 1-5 had elevated levels of lead in their blood (that is, levels at or greater than 10 ug/dL) in 1999-2000. That number of lead poisoned children declined significantly from 4.7 million in 1978.
- About 6.3 million children (8.7 percent) under 18 had asthma in 2001.
- Asthma is the most common chronic childhood disease in the US.

Our Nation's schools:

- 53 million children attend 118,000 K-12 schools
- 6,000 new schools will need to be built in US by 2007
- Tens of thousands more will be renovated



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- The average school is ~42 years old and in poor condition
  - 25% report ventilation problems
  - 20% report Indoor air quality problems
- Design, construction, renovation and operations and maintenance decisions and practices:
  - directly affect student and staff exposure to environmental contaminants
  - play a critical role in moisture control, a major factor in mold and other allergen issues

| <b><i>Sensitive Populations</i></b>                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Strategies</i>                                                            | <i>Programs/Tools/Actions</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Build on integrated approach to healthy schools at the Regional and HQ level | <ul style="list-style-type: none"> <li>• Coordinate -- and where feasible, integrate -- existing programs</li> <li>• Fill information gaps</li> <li>• Develop better tools for schools</li> <li>• Promote comprehensive, whole building approaches</li> <li>• Demonstrate environmental results through integrated pilot effort with LAUSD (~1 million students and teachers)</li> <li>• Focus efforts on school siting, high performance facility design, and environmental issues at existing facilities (e.g., indoor air, lead, pesticides, asbestos, storm water)</li> <li>• Continue working with LAUSD on Phase II building program. In addition to the CHPS criteria adopted in Phase I, Phase II schools will be required to be at least 15 percent more energy efficient than Title 24, address stormwater management, and incorporate recycled content and low-emitting materials.</li> <li>• Review LAUSD database, match available EPA and other resources, technical support and programs with priority areas of concern (e.g., energy star, IAQ IPM, asbestos, lead). 80% of corrective actions are tied to training, education and outreach to plant managers and other school staff</li> <li>• Assess district procurement practices</li> <li>• Prioritize limited capital improvement funds to address significant health and safety hazards at existing schools</li> <li>• Review progress based on 2nd round of assessments and compliance assistance</li> <li>• Use database to track progress</li> <li>• Manage EPA contract to develop voluntary national assessment tool</li> <li>• Facilitate resolution of 1350 certification issues</li> </ul> |
| Public-Private Partnerships                                                  | <ul style="list-style-type: none"> <li>• Promote "adopt-a-school(s)" effort in Phoenix Metro Area to promote IAQ Tfs and other healthy school programs through Valley Forward and their membership (e.g., Intel, Motorola, Honeywell, APS, SRP)</li> <li>• Partner with Safeway stores to promote a series of Children's Environmental Health issues at stores and on grocery bags</li> <li>• Potentially connect with Children's Health day at baseball games</li> <li>• Work with Monterey Aquarium to add health to Seafood Watch cards (distributed throughout the West Coast)</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |



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| <b><i>Sensitive Populations</i></b>                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|----------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Strategies</i>                                                                                        | <i>Programs/Tools/Actions</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <p>Improve Communication and Outreach Networks</p>                                                       | <ul style="list-style-type: none"> <li>• Establish network of internal and external contacts</li> <li>• Ongoing site visits, meetings and courtesy visits</li> <li>• Participate on targeted advisory boards and workgroups</li> <li>• Promote synthesis and distribution of key information</li> <li>• Increase internal communication and collaboration:                             <ul style="list-style-type: none"> <li>-- Ad Hoc Workgroup</li> <li>-- Lotus Notes Database</li> </ul> </li> <li>• Expand external communication:                             <ul style="list-style-type: none"> <li>-- children's health webpage</li> <li>-- set-up e-mail "listserve"</li> </ul> </li> <li>• Children's Health Month Events</li> </ul>                                                                        |
| <p>Promote Asthma Prevention</p>                                                                         | <ul style="list-style-type: none"> <li>• Provide technical support to ECOS-ASTHO Children's Health and Asthma Strategic Plan implementation (ongoing)</li> <li>• Manage ongoing children's health and asthma grants (ongoing)</li> <li>• Support air toxic pilot efforts (ongoing)</li> <li>• Provide data/support to Central Valley Op clean air efforts (ongoing)</li> <li>• Coordinate workshop on children's health asthma and air pollution (4th qtr)</li> <li>• AZ children's health initiative: focused on asthma: coordination; assessment; reduction; education</li> <li>• CAFA Grantees – RAMP (participate on technical advisory committee)</li> <li>• Support IAQ program</li> <li>• Draft Regional Asthma Strategy – geographic focus, nexus between ambient and indoor air (Draft by 2nd qtr)</li> </ul> |
| <p>Support Governor of Arizona's Children's Health Initiative</p>                                        | <ul style="list-style-type: none"> <li>• Provide technical assistance and advice in development of AZ Children's Health Strategic Plan</li> <li>• [see also schools and asthma efforts above]</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <p>Support environmental education (EE) program and increase linkages with children's health program</p> | <ul style="list-style-type: none"> <li>• Help manage grants process as project officer, designated contact for questions and through outreach to Region 9 constituencies</li> <li>• Promote Presidential Environmental Youth Awards program and manage selection process for Region 9 nominee</li> <li>• Region 9 contact for National EE Workgroup and serve on webpage and outreach steering committee</li> <li>• Coordinate with EIC to ensure that EE outreach efforts focus on key programmatic priorities</li> <li>• Collaborate with other Federal and non-Federal partners, catalyze development of touring-quality science museum exhibit as well as associated curricular support materials focused on theme related to children's environmental health</li> </ul>                                           |



## Chapter Four Accountability

Region 9 has initiated a yearly accountability process to determine progress toward meeting our strategic planning objectives and sub-objectives. We have developed internal, State, Indian Tribe, and public accountability systems. These accountability systems consist of 1) development of accountability measures, 2) development, tracking and annual reporting of environmental indicators, 3) meetings of those responsible for achieving objectives and sub-objectives, 4) internal audits, 5) annual reviews, 6) written End-of-Year Accomplishment Reports and 6) Regional Program Reports for the public. We are working to fully integrate the accountability reporting of our State and Tribal partners into our regional accountability system.

### Internal Accountability System

Region 9 will continue to implement our numerous internal accountability systems to periodically check progress against the Agency Strategic Plan and against the Regional Strategic Plan. These include regular meetings throughout the year at the unit and division level to discuss progress, challenges, and necessary course corrections. In addition, our divisions meet annually with the Regional Administrator and Deputy Regional Administrator to review accomplishments at the year's end, and to plan activities for the year ahead. Also discussed at this time are opportunities to try new approaches, conditions which may impede progress, emerging environmental issues, and changes in regional priorities. Region 9 also reports progress against Annual Performance Goals at varying times throughout the year, as requested by the National Program Offices.

### State and Tribal Accountability--Annual Reviews with States and Indian Tribes

Each division will conduct annual reviews with EPA headquarters National Program managers to evaluate regional progress on strategic plan annual reporting measures. Annual grant and Performance Partnership Agreement reviews with each state and Indian Tribe will take place to assess progress on priorities, performance measures, and accountability measures.



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## Accountability System with the Public--Regional Progress Reports for the Public

Annual or biennial Regional Progress Reports will be prepared to describe to the public the progress we are making toward achievement of our five Agency Goals and Regional Strategic Plan. The report will highlight success stories and environmental results, describe our strategic priorities by goal and their link to on-the-ground environmental results and issues, provide an accomplishment report of our environmental indicators, and describe future challenges.



## Chapter Five

# Partnership with States and Tribes

Region 9 works closely with states, tribes and territories on our joint mission of protecting human health and the environment in the Pacific Southwest. Each of our partners is unique, with their own specific environmental issues. However, there are over-arching key issues that affect them all: information management, enforcement, budget shortfalls, human capital, and infrastructure needs.

EPA grant funds are provided to many state, tribal and territorial programs to assist them in meeting shared environmental goals. Determining the best and most efficient uses of these resources is important. Two of our states (Arizona and Nevada) and seven of our tribes have chosen to utilize Performance Partnership Grants. These consolidated grants enable flexible use of grant funds across multiple programs.

Region 9 works closely with each of our state, tribal, and territorial partners to share our respective priorities, develop joint strategies to make progress on mutual priorities, and engage in joint problem solving.

Each of our Region 9 programs engages in frequent, informal, routine interactions with their state counterparts throughout the year, to identify emerging issues and elevate problems as appropriate. Each program discusses priorities for use of EPA grant funds during grant negotiations and annual grant reviews, and at that time expected commitments and measurable outcomes are discussed. At least once each year, EPA's executive management team meets with the executive managers of Arizona, Nevada and Hawaii to identify and discuss the most significant priorities requiring collaboration. In California, there are a much greater number of organizations spread over larger distances. As meeting with all of these entities would be very difficult, Region 9 meets several times each year at the executive level with Cal/EPA member organizations, via video-conferencing or face-to-face.

## Arizona

The following are priorities identified for joint attention by Arizona and EPA at meetings which occurred in July, 2003 and November, 2003:

- Title V Permits
- So. Phoenix Community Toxics Initiative
- Mexican Border Issues, including Children's Health, solid waste associated with illegal immigration at the border, and water quality/quantity
- Delegation of Surface Water Quality, Arsenic, and Biosolids programs
- Lower Colorado River infrastructure
- "One Cleanup Program" for Superfund, RCRA and UST; and Brownfields
- Voluntary Remediation Programs
- Institutional controls for reuse



- Site Cleanups
- Emergency Response/Homeland Security
- Children's Health in Arizona
- Information Management
- Environmental Justice
- Enforcement

## California

The following priorities have been incorporated into a Memorandum of Agreement between CalEPA and US EPA as areas for which joint work plans will be developed:

- Air Program Issues (including San Joaquin Valley)
- Water Program Issues
- Mexican Border
- Information Management
- Environmental Indicators
- Agriculture
- Enforcement

## Hawaii

The following issues were raised as priorities for joint attention at meetings with Hawaii in June, 2003:

- Community involvement
- Strong and timely permits
- Enforcement—capacity for speedy enforcement processes; telling enforcement story
- Information management
- Regional haze
- Air toxics program development
- TMDLs
- Large capacity cesspool closure
- Capacity building for water quality standards
- Polluted runoff control
- Solid Waste management, recycling, and waste minimization, and the Bottle Bill
- Lead program delegation
- Waiver/program delegation for asbestos
- Drinking water security



## Nevada

The following priorities were identified for joint attention by Nevada and EPA at meetings conducted in August, 2003:

- Title V permits
- Hydrographic basins
- TMDLs
- State Revolving Fund loan for arsenic treatment
- Perchlorate in drinking water (Kerr-McGee)
- Information management assistance (PCS transition)
- Major Superfund/Hazardous Waste Site cleanups: Western Elite, Rio Tinto, Anaconda, Carson River
- Oversight of landfills and construction and debris (C&D) sites
- Enforcement

## Tribes

Region 9 works actively with 146 tribes, which represent nearly half of all Indian land in the United States. Many unique ecosystems and landscapes are represented by these lands, and EPA has a unique role—exclusive of state and local jurisdictions—to ensure that tribal resources are protected. The region has a dedicated Tribal Operations unit to coordinate with the tribes and to ensure that tribal priorities are being heard, understood, and addressed. The region is also a leader in national agency dialogues concerning tribal environmental priorities, and serves as an advocate for all western tribes. In addition to its relationships with individual tribal governments, the Region hosts an annual tribal conference, and also meets quarterly with a Regional Tribal Operations Committee, comprised of representatives of tribal governments within the region. This group advises EPA on ways to improve its tribal programs to be more responsive to tribal needs. The strategic goals that this group set or itself in 2003 were:

- Improving national budgets for tribal environmental programs
- Obtaining targeted, continuous funding under Section 106 of Clean Water Act
- Improving operation and maintenance of tribal water systems
- Tribal enforcement programs
- Improving coordination between the Region and National Tribal Operations Committees
- Tribal air programs
- Homeland security
- Solid waste management

The Committee will reconsider and revise these goals at the beginning of each calendar year.



## Pacific Islands

Region 9 works actively with the territories of American Samoa, Guam, the Commonwealth of Northern Marianas Islands (including Saipan), Wake Island, and other unincorporated territories in the Pacific Ocean. To a lesser extent, Region 9 works, pursuant to treaty obligations, with former trust territories and now “freely associated states” of Palau, the Marshall Islands, and the Federated States of Micronesia. Region 9 has a dedicated Pacific Islands unit to address the priorities of Pacific Islands. This unit has frequent interactions with their territorial counterparts and meets with individual territorial governments at least twice per year. In addition, EPA’s Pacific Islands unit provides technical assistance and co-hosts an annual Pacific Islands conference. Environmental issues in the Pacific that are being addressed jointly by EPA and local governments include:

- Access to safe drinking water
- Access to wastewater treatment
- Solid waste management and recycling
- Unexploded ordnance
- Preventing and responding to oil spills
- Pig farm waste
- Hazardous materials cleanup
- Coral reefs protection
- Local environmental capacity building
- Infrastructure financing
- Climate Change
- Enforcement



## Appendix A, Glossary of Acronyms

### Major Federal Environmental Laws

|        |                                                                       |
|--------|-----------------------------------------------------------------------|
| BEACH  | Beaches Environmental Assessment and Coastal Health Act               |
| CAA    | Clean Air Act                                                         |
| CERCLA | Comprehensive Environmental Response, Compensation, and Liability Act |
| CWA    | Clean Water Act                                                       |
| CZARA  | Coastal Zone Management Act Reauthorization Amendments                |
| EPCRA  | Emergency Planning & Community Right-To-Know Act                      |
| ESA    | Endangered Species Act                                                |
| FIFRA  | Federal Insecticide, Fungicide and Rodenticide Act                    |
| FOIA   | Freedom of Information Act                                            |
| FQPA   | Food Quality Protection Act                                           |
| NEPA   | National Environmental Policy Act                                     |
| OPA    | Oil Pollution Act                                                     |
| OSHA   | Occupational Safety and Health Act                                    |
| PPA    | Pollution Prevention Act                                              |
| RCRA   | Resource Conservation and Recovery Act                                |
| SDWA   | Safe Drinking Water Act                                               |
| SARA   | Superfund Amendments and Reauthorization Act                          |
| TSCA   | Toxic Substances Control Act                                          |

### Other Terms

|         |                                                         |
|---------|---------------------------------------------------------|
| ACOE    | Army Corps of Engineers                                 |
| APO     | Administrative Penalty Orders                           |
| As      | arsenic                                                 |
| AST     | Advanced Secondary Treatment                            |
| AZ      | Arizona                                                 |
| AZDEQ   | Arizona Department of Environmental Quality             |
| BACM    | Best Available Control Measures                         |
| BFRs    | brominated flame retardants                             |
| BLM     | Bureau of Land Management ( US Department of Interior)  |
| BMPs    | Best Management Practices                               |
| BRAC    | Base Realignment and Closure Program                    |
| CA      | California                                              |
| CAFA    | Community Action to Fight Asthma                        |
| CAFO    | Concentrated Animal Feeding Operations                  |
| CCMPs   | Comprehensive Conservation and Management Plans         |
| CDX     | Central Data Exchange                                   |
| CERCLIS | Comprehensive Environmental Response, Compensation, and |



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|                      |                                                                        |
|----------------------|------------------------------------------------------------------------|
|                      | Liability Information                                                  |
| CETAP . . . . .      | Community Environmental Transportation Acceptability Process           |
| CHAMACOS . . . . .   | Center for the Health Assessment of Mothers and Children of Salinas    |
| CHPS . . . . .       | Collaborative for High Performance Schools                             |
| CNMI . . . . .       | Commonwealth of Northern Marianas Islands                              |
| CO . . . . .         | carbon monoxide                                                        |
| Cu . . . . .         | copper                                                                 |
| CUPA . . . . .       | Certified Unified Program Agency                                       |
| D&D . . . . .        | Decontamination and Decommission                                       |
| DDT . . . . .        | dichloro diphenyl trichloroethane                                      |
| DOE . . . . .        | Department of Energy (United States)                                   |
| DWSRF . . . . .      | Drinking Water State Revolving Fund                                    |
| EA . . . . .         | Enterprise Architecture                                                |
| ECOS-ASTHO . . . . . | Environmental Council of the States                                    |
| EE . . . . .         | Environmental Education                                                |
| EE/RE . . . . .      | Energy Efficiency/Renewable Energy                                     |
| EIC . . . . .        | Environmental Information Center                                       |
| EIP . . . . .        | Environmental Internship Program                                       |
| EIS . . . . .        | Environmental Impact Statement                                         |
| EJ . . . . .         | Environmental Justice                                                  |
| EMAP . . . . .       | Environmental Monitoring and Assessment Program                        |
| EMRs . . . . .       | Environmental Management Reviews                                       |
| EMS . . . . .        | Environmental Management System                                        |
| EQIP . . . . .       | Environmental Quality Incentive Program (US Department of Agriculture) |
| ER . . . . .         | Emergency Response                                                     |
| FCIP . . . . .       | Federal Career Intern Program                                          |
| FRP . . . . .        | Facility Response Plans                                                |
| GAP . . . . .        | General Assistance Program                                             |
| GIS . . . . .        | Geographic Information System                                          |
| GNI . . . . .        | Gross National Income                                                  |
| GSP . . . . .        | Gross State Product                                                    |
| HI . . . . .         | Hawaii                                                                 |
| HIDOH . . . . .      | Hawaii Department of Health                                            |
| IAQ TfS . . . . .    | Indoor Air Quality, Tools for Schools Program                          |
| ICIS . . . . .       | Integrated Compliance Information System                               |
| ICS . . . . .        | Incident Command System                                                |
| IHS . . . . .        | Indian Health Service                                                  |
| IPA . . . . .        | Intergovernmental Personnel Act                                        |



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|          |                                                          |
|----------|----------------------------------------------------------|
| LA       | Los Angeles                                              |
| LAUSD    | Los Angeles Unified School District                      |
| LEDPA    | Least Environmentally Damaging Practicable Alternative   |
| LUST     | Leaking Underground Storage Tanks                        |
| MACT     | Maximum Achievable Control Technology                    |
| MPRSA    | pg. 65 and 72                                            |
| MS4s     | pg. 34                                                   |
| MTBE     | methyl tertiary-butyl ether                              |
| Mwh/yr   | megawatt hours per year                                  |
| NAAQS    | National Ambient Air Quality Standards                   |
| NATA     | National Air Toxics Assessments                          |
| NCP      | National Contingency Plan                                |
| NEP      | National Estuary Program                                 |
| NDEP     | Nevada Department of Environmental Protection            |
| NEAP     | Natural Events Action Plan                               |
| NEPT     | National Environmental Performance Track                 |
| NESHAP   | National Emission Standards for Hazardous Air Pollutants |
| NOAA     | National Oceanic and Atmospheric Administration          |
| NOx      | nitrogen oxides                                          |
| NPL      | National Priorities List (Superfund Program)             |
| NSR      | New Source Review                                        |
| NV       | Nevada                                                   |
| OBOD     | Open-Burn/Open-Detonation                                |
| ORD      | Office of Research and Development (US EPA)              |
| OSC      | On Scene Coordinator                                     |
| OSWER    | Office of Solid Waste and Emergency Response (US EPA)    |
| OW       | Office of Water (US EPA)                                 |
| P2       | Pollution Prevention                                     |
| Pb       | lead                                                     |
| PBTs     | persistent and bioaccumulative toxins                    |
| PCBs     | polychlorinated biphenyls                                |
| PCE      | perchloroethylene                                        |
| PCS      | Permit Compliance System                                 |
| PERFORMS | pg. 85                                                   |
| PM       | Particulate Matter                                       |
| PMI      | Presidential Management Internship Program               |
| PPAs     | Prospective Purchaser Agreements                         |
| PPGs     | Performance Partnership Grants                           |
| PRP      | Potentially Responsible Party (Superfund Program)        |
| PSD      | Prevention of Significant Deterioration                  |
| RAMP     | Regional Asthma Management and Prevention Initiative     |
| RCC      | Resource Conservation Challenge                          |



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|                  |                                                                                |
|------------------|--------------------------------------------------------------------------------|
| RI/FS            | Remedial Information/Feasibility Study                                         |
| ROTC             | Regional Tribal Operations Committee                                           |
| SCCWRP           | Southern California Coastal Water Research Project                             |
| SBIR             | Small Business Innovative Research                                             |
| SEPs             | Supplemental Environmental Projects                                            |
| SFEP             | San Francisco Estuary Project                                                  |
| SIP              | State Implementation Plan                                                      |
| SJV              | San Joaquin Valley                                                             |
| SO <sub>2</sub>  | sulfur dioxide                                                                 |
| SOCTIIP          | Southern Orange County Transportation Infrastructure Improvement Project       |
| SPCC             | Spill Prevention Control and Countermeasure                                    |
| SSO              | Sanitary Sewer Overflow                                                        |
| STAR             | Service to Achieve Results                                                     |
| TAMS             | Tribal Air Monitoring Support Center                                           |
| TCE              | trichloroethylene                                                              |
| TIP              | Tribal Implementation Plan                                                     |
| TMDL             | Total Maximum Daily Loads                                                      |
| TPAs             | Trading Partner Agreements                                                     |
| tpy              | tons per year                                                                  |
| TSDFs            | Treatment, Storage, and Disposal Facilities                                    |
| TSP              | Total Suspended Particulates                                                   |
| TRI              | Toxic Release Inventory                                                        |
| UAOs             | Unilateral Administrative Orders                                               |
| UIC              | Underground Injection Control                                                  |
| US EPA           | United States Environmental Protection Agency                                  |
| US-Mexico Border | United States - Mexico Border                                                  |
| USDA NRCS        | United States Department of Agriculture, Natural Resource Conservation Service |
| UST              | Underground Storage Tanks                                                      |
| VA               | Veterans Administration                                                        |
| VOCs             | Volatile Organic Compounds                                                     |



## Appendix B, Examples of Collaboration

### WEST COAST CLEAN DIESEL COLLABORATIVE

The west coast, like other regions across the country, suffers from high concentrations of diesel exhaust, which exacerbates and possibly causes respiratory and cardiovascular illness and premature deaths. In addition, California has some of the worst ozone and particulate matter problems in the country. Current monitoring information shows that numerous California counties will be designated non-attainment for EPA's 1-hour and 8-hour ozone and PM2.5 National Ambient Air Quality Standards (NAAQS).

EPA Regions 9 and 10, with the support of our headquarters office in Washington, DC, are convening a collaboration of federal, state, local, non-profit and private sector partners to develop a West Coast Clean Diesel Collaborative (Collaborative) to reduce emissions from diesel sources along the west coast. The Collaborative will create additional incentives for early application of federal and state on-road and non-road diesel engine and fuel standards and greater participation in voluntary diesel mitigation programs.

In addition, the Collaborative will apply market-based incentives, innovative technologies and collaborative approaches to reduce air pollution – Nitrogen oxides (NO<sub>x</sub>), Sulfur Dioxide (SO<sub>2</sub>) and diesel particulate matter (DPM) - from diesel sources such as ships, railroads, trucks, buses, and construction and agricultural equipment.

Lastly, the Collaborative will support on-the-ground mobile and stationary diesel engine retrofits, rebuilds and replacements, anti-idling measures, clean fueling infrastructure projects and other activities that reduce emissions from diesel sources by leveraging existing programs and funding sources in FY04 and FY05 and working toward the creation of a permanent West Coast Clean Diesel Fund (Fund) in FY06/FY07.

Our overall goal is to reduce emissions from diesel sources and significantly improve air quality and public health. Thus, our short-term goal is to build upon the past regulatory and non-regulatory successes of the Collaborative partners and lay the ground work for future reductions by leveraging funds for on-the-ground regional projects. These projects will be funded in part by existing and discretionary federal funding sources of up to \$5-10 million collectively each year for both FY04 and FY05.

Our longer-term goal is to establish a Fund (with a revolving component) exceeding up to \$100 million each year for 5 years starting in FY06 through joint federal agency efforts in the President's FY06 Budget, state and local efforts in Congress, state and local taxes and bonds and/or innovative strategies that leverage foundation and private sector funds.

The regional leadership is committed to building federal, state and local government support for the Collaborative and reaching out to additional potential partners. Together we are developing a written charter, measures of success and a work plan. We hope to have one to two kick-off media events with the Governor's of California, Oregon and Washington to announce highly visible, large scale Collaborative projects - possibly a Comprehensive Clean Corridor project along I-5 and/or a Clean Marine Initiative along the Pacific Coast.



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### Collaborative Problem Solving in Region 9 – Charnock MTBE Contamination Site

EPA Region 9's success in facilitating a solution to the City of Santa Monica's Charnock MTBE problem highlights Region 9's commitment to collaborative problem solving with State and private stakeholders and the importance of our enforcement credibility in achieving this goal. In 1997, responding to the loss of 45% of the City's drinking water supply to MTBE contamination, EPA and the State of California agreed to pursue a joint enforcement action to insure rapid restoration of the first major municipal water supply to be shut down by this emerging contaminant. For over five years, EPA and the State worked in partnership to compel potentially responsible parties to investigate potential MTBE sources, remediate MTBE releases from UST systems, analyze alternatives for cleanup of the commingled plume and provide replacement drinking water.

Region 9's initial efforts to facilitate a settlement with responsible parties were unsuccessful because of these parties' disputes with one another regarding allocation and the appropriate remedy. However, in July, 2002, directly after EPA and the State clearly communicated their intention to issue unilateral orders for implementation of remediation of the commingled plume, the City and two major responsible parties entered into an agreement with the City to fund the City's preferred remedy, construction of a large drinking water treatment facility. This agreement, however, was conditioned on approval by the Court in a damages case filed by the City and was opposed by the other parties in the case, including the party with the greatest share of liability.

At this point, Region 9 saw an opportunity to create incentives for a collaborative approach that would provide a global solution for all parties. The Regional Administrator and the Chair of the Los Angeles Regional Board initiated a series of meetings with the City and the responsible parties. In these meetings, the RA and the Regional Board Chair promoted a global settlement by indicating that, in the absence of such a settlement, the responsible parties would be subject to enforcement and the City was less likely to achieve all of its remediation goals. EPA's credibility, the enforcement groundwork laid during the prior six years of investigation and cleanup, and the RA's efforts in reaching out to each of the parties resulted in a successful negotiation.

In December 2003, a global settlement including all major responsible parties was approved by the Orange County Superior Court and is valued by the City of Santa Monica at over \$300 million. The settlement provides funding for construction and operation of a large drinking water treatment plant along with additional funds to cover legal and oversight costs incurred by the City.

With entry of this global settlement, Region 9 concludes a successful collaborative response, including close coordination with California's State and Regional Water Boards, the California Department of Health Services, USEPA OUST, USEPA ORD, USDOJ, and the California Attorney General's Office. EPA and the State's approach to promoting this settlement not only responded effectively to the stakeholders' most pressing concerns, but also freed up the State and federal resources that would have been dedicated to this project, allowing them to be used on other high priority issues.



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### Dairy Quality Assurance Program Partnership

With more than 1.5 million dairy cows generating 30 million tons of manure each year, management of dairy waste on California's 2,300 dairies is one of the state's most pressing environmental issues. A majority of California dairies is located in the San Joaquin Valley, an area that includes rich farm land, but also faces serious challenges to air and water quality and has some of the worst poverty in the nation. Dairy manure contains nutrients, salts, bacteria, and organic matter that can create environmental problems when it enters rivers, streams or groundwater. As a result, many of California's waterbodies are on the impaired list. Decomposing manure also emits air pollutants, including volatile organic compounds (precursors to the formation of both PM 2.5 and ozone), methane (a global warming gas), and odors.

Faced with a large and growing number of dairies but finite resources to implement enforcement and permitting programs, most of California has been unable to adequately address the environmental challenges posed by the dairies. Recognizing that the dairy industry is crucial to the state's economy yet can adversely affect water and air quality and public health, Region 9, in collaboration with 14 other signatories from the dairy industry, academia, and other federal and state agencies, have developed a voluntary process to increase compliance with the local, state and federal environmental requirements. Most recently, the environmental group Sustainable Conservation also signed on. This industry-led partnership is the basis of the California Dairy Quality Assurance Program (DQAP). The voluntary program consists of a three-part certification process: an educational course, development of a dairy-specific Environmental Stewardship Farm Management Plan, and an on-site evaluation conducted by a California Department of Food and Agriculture milk inspector who has been trained in environmental regulations and management.

The certification process has been funded by EPA air and water grants of over \$500,000. In addition, different industry groups have given monetary incentives for completing parts or all of the certification process. Most notably, Hilmar Cheese Company, a large California cheese processor, offered a bonus program pledging thousands of dollars to each of its 250 milk producers who complete the DQAP certification. Continued EPA support would increase dairy certification, thereby increasing compliance and improving air and water quality.

**WHAT IS NEEDED:** To date, over 1200 producers have attended the entire educational course, and over 200 California dairy facilities have been certified. This program has provided a comprehensive program for producers to learn about regulations, management practices, and on-site problems and solutions. State inspectors have noted a large difference in the producers' attitude and understanding of the rules and facility management practices. However, much work and additional resources are still needed to certify the others. California is struggling with the development of a permitting program to assure compliance of the dairies with water quality rules, while at the same time, keeping the dairies economically viable. The trust and understanding that has been established between a wide variety of stakeholders through this partnership has allowed the group to leverage resources, discuss issues openly, and resolve problems efficiently. Additional funding could help to sustain and modify the education and certification program to address new permit requirements expected from the state regional water board later this year in addition to the growing attention to air quality issues.

### Lake Tahoe Innovations



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### Environmental Issues:

Lake Tahoe is known as the "Jewel of the Sierra" due to its famed water clarity and scenic mountain setting. The Lake Tahoe Basin borders both California and Nevada, between the Sierra Nevada crest and the Carson Range. The lake itself is 22 miles long and 12 miles wide, and is the tenth deepest lake in the world.

While Lake Tahoe has been a tourist destination for the past century, between 1960 and 1990, the population of the area increased over five times. The ensuing building boom in the 1960s caused massive disturbance to the lake, visibly changing the clarity and color of the lake.

The remarkable clarity has been declining at the rate of about one foot per year (see graphic below) due to inputs of sediment and nutrients from urban runoff and air-borne sources from inside and outside the basin (over 50% of the nitrogen and 26% of the phosphorus going in to the Lake are from air-borne sources). In the last two years the decline in clarity has slowed. It is unclear whether this reflects a trend in improvement due to human efforts or is merely a result of meteorological events within this timeframe. Experts say it may be due to a combination of these factors.

In addition to concerns with declining lake clarity, the health of the forest continues to pose a fire risk for basin residents and traffic congestion in the basin is impacting air and water quality as well as the quality of Lake Tahoe as a tourist destination and livable community.

To address the environmental degradation of the basin, the Tahoe Regional Planning Agency (TRPA) was created in 1969 by the states of California and Nevada, with the consent of the U.S. Congress, to regulate development activities in the Tahoe Basin. By the mid-90's the TRPA realized its regulatory efforts to restore and protect the Lake Tahoe Basin's natural beauty were not enough and galvanized private, local, state and federal partnerships to cooperatively tackle the basin problems. In 1997, then President Clinton and Vice President Gore convened a Forum at Lake Tahoe to focus on the key environmental issues in the basin, to recognize the unique partnership efforts underway and to commit federal support for these efforts.

As part of the Federal Interagency Partnership established by President Clinton, the EPA has stepped up its efforts in helping to restore lake clarity.

### How EPA'S Tahoe Efforts are Addressing the Environmental Issues

Since 1997 EPA has increased funding and staff support to work with Tahoe stakeholders to:

- restore stream channels and wetlands
- develop scientific tools needed to guide restoration activities
- upgrade sewer export lines
- address MTBE ground water contamination
- develop source water protection strategies
- provide coordination and technical assistance to basin agencies

Over the last year EPA has been focusing on several key and innovative projects in the Tahoe Basin:

- 1) Lake Tahoe is a CWA Section 303(d) listed water body by both states. California is taking the lead in working with Nevada, EPA and local partners to develop TMDLs for Lake Tahoe. EPA is providing a staff person to California and has supported much of the scientific analysis which will be used to develop the TMDLs. The Lake Tahoe TMDLs are unique in several ways. Over



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\$6 million dollars is going into the research, monitoring and modeling for developing a scientifically rigorous TMDL. In addition, EPA and the states are focusing on the impacts of air deposition on the ecosystem health of the lake. Since much of this air pollution comes from out-of-basin sources (NOx from San Francisco and Central Valley mobile sources), EPA and the states will be looking at innovative approaches for reducing these sources, including developing a framework for pollutant source trading. EPA is also working with basin agencies to integrate the TMDLs into basin planning efforts (see below).

- 2) The current planning structure in the basin is undergoing an update and overhaul in the next several years. The Tahoe Regional Planning Agency, USDA Forest Service, the states of California and Nevada and EPA are beginning a major plan revision process which will set the environmental framework for the basin for the next twenty-plus years. This effort, called Pathway 2007, which refers to date of adoption of the plan revisions, includes the integration of three basin plans: the TRPA Regional Plan, Forest Service Forest Management Plan and the Lake Tahoe TMDL and associated California Basin Plan Amendments.

The agencies are currently coordinating the development of research, monitoring and modeling to support these planning efforts. In building on over 20 years of experience to implement these plans, the agencies are looking to improve the environmental regulatory framework by developing integrated goals and standards and taking a more holistic systems approach in developing implementation strategies. This includes expanding the planning process to include the public in a dialogue on such topics as socio-economic indicators and incorporating community culture.

We are also developing a collaborative public process to ensure community and regional stakeholder involvement and dialogue in the development and implementation of these plans. This type of collaboration is unique this early in a planning process and will provide a national model for environmental collaborative planning.

Reportable Results:

- EPA has a place-based staff person located in the Tahoe Regional Planning Agency offices (since 1998). Among her other coordination duties, she is now coordinating the Pathway 2007 agency process and is working with several agencies to develop the process for the public collaboration component. She also works closely with the Lake Tahoe TMDL group.
- In August 2002 EPA placed a staff person in the California Regional Water Quality Control Board offices in South Lake Tahoe to work on the development of the Lake Tahoe TMDLs. He is coordinating the technical efforts underway and will be working with Nevada which received an FY'03 earmark to support the Lake Tahoe TMDL effort.
- As Lake Tahoe is the drinking water source for the majority of the Tahoe Basin, EPA recently provided a grant to the Nevada Tahoe Conservation District to work with local water purveyors to build on the state source water assessments by developing protection strategies including watershed plans to protect Lake Tahoe. NTCD will be working with EPA and others to connect these source water protection strategies to current surface water restoration activities currently underway as part of the Lake



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Tahoe Environmental Improvement Program. This innovative effort focuses not only on the goal to "Keep Tahoe Blue," a slogan that is seen on bumper stickers throughout the area, but also to "Keep Tahoe Pure."



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San Francisco "LTMS": A Model Collaborative Partnership in Region 9

The LTMS ("Long Term Management Strategy for the Placement of Dredged Material in the San Francisco Bay Region") is a successful ongoing collaboration of EPA Region 9, the US Army Corps of Engineers, state water quality agencies, ports, environmental groups and other stakeholders to address long-standing controversies about dredging practices in the Bay area. The LTMS Management Plan, published in 2001 based on studies and planning conducted throughout the 1990s, is designed to simultaneously increase environmental protection, support necessary dredging projects, and simplify the permitting process. Specifically, the Plan calls for:

- 1) Managing dredging operations to minimize environmental impacts;
- 2) Minimizing how much dredged mud is dumped as waste back into the Bay;
- 3) Maximizing the recycling of dredged mud for beneficial uses (such as wetland habitat restoration or landfill daily cover);
- 4) Creating a multi-agency "one-stop shop" for processing dredging permit applications.

The San Francisco LTMS just completed its third year of full implementation, following 10 years of planning and development. Notable successes have marked the course of the LTMS to date. For example, the "mudlock" of the 1980s was broken with completion of the decades-delayed Port of Oakland 42-foot deepening project. Lessons learned from this experience, especially regarding stakeholder involvement, were put to good use, allowing rapid (3 year) approval of the Port's 50-foot deepening project.

Several regional-scale beneficial re-use projects have already been coordinated by LTMS, that when completed, will add over 5,000 acres of new and restored salt marsh habitat to the Bay. The Congressionally-authorized Hamilton project alone will restore up to 2,500 acres, all in a manner that will cost dredgers no more than would ocean disposal of their material. Other re-use projects in the planning stages could result in many more thousands of acres of enhanced habitat for endangered species in the region.

A more recent challenge has been working with the resource agencies to weave necessary protections for the myriad of threatened and endangered species in the region into the LTMS Management Plan in a way that allows (and even streamlines) ongoing dredging. The result: new Environmental Work Windows that eliminate any need for project-specific Endangered Species Act consultation for many projects.

Finally, the nationally recognized interagency Dredged Material Management Office (DMMO) has significantly streamlined additional aspects of the permitting process. Its ongoing success is a strong testament that working in partnership is more efficient and effective – at facilitating dredging projects and protecting the environment – than when agencies focus only on their own narrower responsibilities.

Collaboration with local stakeholders has been instrumental to the success of LTMS in other ways, as well. Their active support resulted in the Corps receiving funding of \$2 million for FY-04, to continue LTMS efforts. The joint participation and cooperation of industry and



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environmental groups has been crucial to approval and funding of some of the re-use projects noted above, which has resulted in Congressional approval of major port improvement projects in the area.



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Southern California Wetlands Recovery Project (WRP)

Introduction: The Southern California Wetlands Recovery Project (WRP) is an innovative partnership of 17 state and federal agencies working in concert with scientists, local governments, environmental organizations, as well as business leaders and educators to increase the pace and effectiveness of wetlands recovery efforts in Southern California. The WRP's geographic scope includes coastal wetlands and watersheds in a 5-county area spanning from Point Conception (in Santa Barbara County) south to the U.S.-Mexico border. The WRP employs three primary strategies to recover wetlands: (1) acquiring property from willing sellers, (2) restoring wetlands where allowed by landowners and land managers, and (3) educating people about best practices to protect wetlands. The WRP, because it seeks to recover functioning systems, does not limit its purchases and restoration activities to just "wetlands" as defined by regulatory agencies, but includes within its scope historic wetlands, areas fringing wetlands, and uplands integrally related to a healthy wetland ecosystem.

Accomplishments: While the WRP has an impressive record to date: over 4,275 acres acquired, and over 600 acres restored, some of the most important successes have come from its innovative organizational structure and ability to obtain funding (see below). A few of the more notable project accomplishments include: the 778-acre Arroyo Hondo acquisition in Santa Barbara, the 265-acre Ormond Beach acquisition in Ventura, and the 415-acre restoration at San Elijo Lagoon in San Diego.

Organization: The WRP Working Agreement established in 1998 an organizational framework as follows: The Secretary of California's Resources Agency and the U.S. EPA Region 9 Regional Administrator Co-Chair the Governing Board, the overarching policy making body for the WRP, which comprises the top officials from the 17 state and federal partner agencies as well as the chairs the Science Advisory Panel and Public Advisory Committee, who serve as *ex-officio* members. High-level staff representing the Government Board members constitute the Wetlands Managers Group, whose role is to identify for the Board a set of projects and activities to implement the regional strategy, facilitate interagency coordination, and generate policy proposals for Governing Board consideration. The Science Advisory Panel consists of leading researchers and restoration practitioners in fields related to wetlands science. They identify key scientific questions for research funding, develop position papers for the Board's consideration, and help to ensure WRP actions are informed by sound science. Local elected officials, environmental leaders, business people, and educators serve on the Public Advisory Committee. They engender support for wetlands recovery throughout the region and represent community interests in the WRP partnership. The innovative structure of the five County Task Forces endows the WRP with its distinctive vitality. Each is co-chaired by a County Supervisor and environmental leader, both of whom sit on the Public Advisory Committee. The Task Forces provide a county-wide forum for public, private, and non-profit wetlands and watershed stakeholders. Participants work collaboratively to identify critical wetland resources, help implement feasible projects, and promote wetlands education and information-gathering. The Task Forces are creating integrated watershed networks throughout each county to share information, mobilize support for funding, channel community concerns to the PAC and WRP as a whole, and incorporate wetlands protection and recovery more fully into local government processes. The State Coastal Conservancy administers the WRP partnership. It helps staff the different organizational units— the Managers Group, the Science Advisory Panel, and the Public Advisory Committee, and the County Task Forces. It serves as the fiscal agent for the majority of the state funding that comes to the WRP; it implements or oversees



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implementation of the WRP's acquisition and restoration projects; and it manages several communication channels including a web site and an electronic newsletter.

EPA's Role: EPA Region IX continues to play an important role in the WRP. Besides Co-Chairing the Project, EPA has contributed over \$1M in planning funds and has chaired the Wetlands Managers Group since 1998. EPA also directed monies from a 2000 settlement agreement over ocean dumping violations to help fund a wetlands acquisition within the Huntington Beach Wetlands.

Current Funding Status: The WRP has received nearly \$93M in funding (primarily from the State of California and Bond Acts) and has encumbered nearly all of those funds for specific projects. Significant funding comes from other sources on projects where the WRP is just one of several agencies contributing.

Future Actions: The WRP encompasses wetlands recovery efforts at the federal, state, and local level. The Regional Strategy articulates a shared vision that each partner can turn to for guidance in how to manage staff effort, direct resources, and measure progress. Success depends not only on a few agencies actively engaged, but on each and every partner, at all levels, seeking to enhance the overall program with the particular resources that they wield. A key to success will be ongoing integration—integration of the Regional Strategy into the decision-making processes of the WRP partners, integration of related regional planning resources and objectives into WRP deliberations, and, ultimately, the integration of wetlands and watershed recovery into the thinking of all of those who affect the vitality of these critical resources. This Regional Strategy is one step in that direction. Much information remains to be collected and analyzed. More research remains to be done. Better integrative tools need to be developed. One important outcome of this Regional Strategy is that it sets the course for this further evolution.



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South Phoenix Multi-Media Toxics Reduction Project

The Challenge: South Phoenix has a history of mixed-use development creating a patchwork of industrial facilities, residential housing, landfills, and commercial enterprises, representing numerous pollution sources. The area, informally identified as south of downtown Phoenix, has a strong African-American heritage. Today the area reflects a predominately Hispanic culture. Key community issues include risks and exposure from chemical fires, air pollution and hazardous waste storage.

The challenge is to reduce toxic pollutants and neighborhood exposures from multiple sources (air, water and waste) in collaboration with the community, local and state government and other stakeholders.

The Solution: Region 9 was selected to receive grants from several EPA offices to implement a community-based pilot project in South Phoenix, modeled after the Cleveland Air Toxics project (website). These funds have been granted to Arizona Department of Environmental Quality (ADEQ), the lead agency for the multi-media toxics reduction project.

ADEQ with its community partners and support from other federal, state and local governments, non-profit organizations, academic institutions, and industry groups will engage in a comprehensive process leading to a toxics reduction plan. The plan will focus on early reduction opportunities and set the stage implementation of long-term solutions.

The Results:

A stakeholder process is ongoing which will:

- 1) Develop an inventory of toxics sources and set priorities for reduction planning;
- 2) Identify and implement early reduction activities (e.g. anti-bus idling, lead outreach);
- 3) Identify actions to reduce toxics (emissions and exposures) as part of community toxics reduction plan;
- 4) Implement actions utilizing an array of tools (Pollution Prevention, Environmental Management Systems, technology, compliance, regulation, etc.) that will result in reduced toxics emissions from air, water and waste.

ADEQ, in collaboration with the City of Phoenix, Maricopa County, and the Arizona Department of Health Services, developed a detailed workplan, outlining the goals, objectives and strategic approaches to ensure a comprehensive, inclusive process for toxics reduction planning.

The community is directly involved, representing numerous neighborhood associations, community based organizations, local colleges, businesses, residents and other interested stakeholders. They have formed a Community Action Council (CAC) which is co-chaired by ADEQ and community representative. The CAC will be instrumental in setting priorities and developing reduction strategies for a pilot area within South Phoenix.



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US/Mexico Border 2012 Program

The US/Mexico Border region is one of the most dynamic in the world. It extends more than 2,000 miles from the Gulf of Mexico to the Pacific Ocean, and 62 miles on each side of the international Border. Ninety percent of the Border population resides in 14 paired, inter-dependent sister cities. Over the last 20 years, population has grown rapidly in the Border region to more than 12 million people, with approximately 6.5 million in the United States and 5.5 million in Mexico. There are 26 US federally-recognized Native American tribes in the Border region, which range in size from 9 to 17,000 members. Population is expected to reach 20 million by 2020.

Rapid population growth in urban areas has resulted in unplanned development, inefficient use of land and natural resources and communities lacking access to potable water. Nonexistent or overburdened wastewater facilities, waste treatment and disposal facilities and transportation and energy infrastructure contribute to greater air, water and land pollution for the Border area residents than most places in the United States. Border residents, especially children and the elderly, suffer disproportionately from many environmental health problems, including water-borne diseases and respiratory problems.

Water is the most limited resource in this primarily arid region. Surface and groundwater resources are contaminated primarily by raw or inadequately treated sewage. Increasing demand for water has led to the rapid depletion of aquifers and has contributed to binational disagreements on surface water allocations along the US/Mexico Border. Raw sewage flowing from non-serviced areas in Mexico into the US via trans-boundary rivers poses a continuing binational health and environmental risk. The Rio Grande, New River and Tijuana River carry sewage discharged from Mexico into the US. EPA's Border water infrastructure program, initiated as part of a NAFTA side agreement, has provided \$481.7 million to 51 drinking water and wastewater projects serving over 6.4 million people living in the poorest communities in the Border area. EPA's Border Environment Infrastructure Funds (BEIF) has leveraged \$1.90 from other funding sources for every BEIF dollar, as BEIF grants to Mexico must be matched dollar for dollar with grants from Mexico. By the end of FY 2004, the BEIF is projected to have a \$44 million deficit if used to fund those projects scheduled for certification this year.

With the commitment of the leadership of the ten Border states and US tribal governments, the US Environmental Protection Agency (EPA) and Mexico's Secretariat of Environment and Natural Resources (SEMARNAT), in partnership with the US Department of Health and Human Services (HHS), the Mexican Secretariat of Health (SS) and other federal agencies, have convened to develop the Border 2012 program to protect the environment and the public's health in the US-Mexico Border region. This new bi-national agreement includes 6 goals and 26 concrete and measurable objectives to gauge our progress in making environmental improvements along the Border. The 6 goals address reducing pollution in our air, water and on land; improving environmental health; reducing exposure to chemicals from accidental releases or terrorism; and improving environmental performance through compliance, pollution prevention and the promotion environmental stewardship. To achieve Border 2012 goals and objectives, indicators of environmental progress will be developed and used to measure results.

For the past year, Regions 6 and 9 have established Binational Regional Workgroups (RWGs), and within each, local implementation task forces addressing air, water, waste, compliance/enforcement, children's health, chemical emergency preparedness and environmental education. The basis for a locally based task force is an acknowledgment that the Border 2012 program employs a bottoms up approach - meaning that projects to address the greatest



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environmental concern of a geographic area, will be put forth and implemented by the key stakeholders located within the area. These efforts strive to be collaborative, consensus driven and community based. Active participants on the Regional work groups and task forces include US and Mexico federal, state and local agencies, tribes and community groups.

In order to better define the purposes and action agendas of the task forces, implementation plans have been developed. These plans also identify specific projects, which are a critical component for achieving the goals and objectives of Border 2012. In FY03, EPA funded numerous projects, including waste tire pile assessments, contaminated site stabilization and a bilingual disaster field guide. We also initiated a Border 2012 competitive grant program. For FY04, Regions 6 and 9 have set aside \$1.2 million for this grant program; however, we received over 90 proposals totaling over \$5 million. Acknowledging that the need will far outweigh what we can contribute, we have contacted over 50 philanthropic organizations that have a US/Mexico Border interest and are putting forth these project proposals for their funding consideration. We expect to select and award the project grants by July '04 and will announce a new Border 2012 RFP for this calendar year once we receive our annual allocation from OIA.

While we explore innovative funding options for Border 2012 projects to address the enormous multi-media need, continued Regional base funding from OIA and support from other EPA offices to fund the Border 2012 grant program is critical to our binational efforts to improve conditions along the US/Mexico Border. In addition, the water infrastructure needs are great and increased support in this endeavor (via EPA's Office of Water) would further our binational efforts to provide Border communities access to potable drinking water and removing raw sewage from binational waters.



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Voluntary Partnership with Nevada Gold Mines to Reduce Mercury Air Emissions

The Problem: The 2000 Toxic Release Inventory revealed that four large Nevada Gold Mining companies were emitting over 22,000 pounds of mercury per year to the atmosphere.

The Solution: An EPA and state partnership with Nevada gold mining companies to voluntarily reduce mercury air emissions from gold mines by 33% by the end of 2003 and 50% by the end of 2005.

Environmental Results: By the end of 2002, the program's first year, the mines reduced mercury emissions by over 9,700 lbs per year, which represents a stunning 44% reduction of emissions. This reduction is the equivalent of the total elimination of mercury emissions from 42 large coal-fired electric power plants. These reductions have occurred despite the fact there is no regulatory requirement to do so. We anticipate the mines will far exceed their 50% reduction goal.

Collaborative Process: The idea for this voluntary partnership program originated from Region 9's review of the year 2000 TRI report. Once we determined there were no existing regulatory requirements for the mines to control emissions, we contacted the four largest mining companies and suggested a voluntary approach to reduce the emissions modeled after EPA's successful 33/50 program. Though the mines initially expressed only lukewarm interest, EPA staff effectively implied that EPA could initiate a MACT rule-making process if a voluntary program was not successfully developed. Largely due to this added incentive, the mining companies conceptually agreed to a program in collaboration with Region 9. They initiated intensive monitoring programs in order to identify how to modify unit processes, explore pollution prevention opportunities, determine appropriate air pollution control devices, and collect emissions data that could be used as a benchmark for the voluntary program. In the fall of 2001, the Nevada Department of Environmental Protection (NDEP) became an active participant in negotiating the final wording of the partnership and took responsibility for monitoring and reporting the results of the program. After two years of development, on June 12, 2002, EPA and NDEP launched the voluntary program.

Lessons Learned: This voluntary program collaborative process is effective because:

- There is a serious environmental problem acknowledged by EPA and industry.
- The sources of emissions to the environment are known and discrete.
- There are incentives for industry, such as the avoidance of a regulatory process or the saving of money through pollution prevention, waste minimization, or recycling.
- There are models of successful voluntary programs, such as the 33/50 program.
- The pollution controls or process changes are a proven technology that is cost effective.
- There is an internal EPA team that has a shared goal and good working relationships.
- There is sufficient time to allow EPA and industry to explore partnership opportunities and get baseline information.
- The early stages of the partnership are "below the radar screen" and are allowed to develop without the pressure of high profile expectations. In the case of the gold mining partnerships the mines absolutely did not want it announced that we were working together until they knew we had already agreed on a viable program.



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Water Quality Monitoring Partnership

The Southern California Coastal Water Research Project (SCCWRP) is a joint powers agency whose charter is to conduct environmental research to increase our understanding of the effects of human activities on the ecology of coastal waters of the Southern California Bight.

Although the organizational structure, staff, and leadership have changed over the years since its founding in 1969, SCCWRP has continued to provide innovative science and applied research and has increased our knowledge of the marine ecological systems of southern California, especially in the area of interrelationships with wastewater discharges. SCCWRP is a recognized leader in coastal environmental research, specializing in sources, fate, and effects of contaminants. SCCWRP's research capabilities are paramount. However, their ability to facilitate collaboration amongst various agencies is equally outstanding. They have assisted EPA, 3 Regional Water Quality Control Boards, State Board, Los Angeles City and County, Orange County, San Diego, and other public agencies and local stakeholders in designing and implementing a more regionalized coastal monitoring program through collaboration and coordination of the various monitoring agencies. Today, participants in the effort include Mexican scientists as well as citizen monitoring groups.

The collaboration is instrumental in getting the groups together to cooperatively monitor the southern California coastal area to be more cost-effective in answering some fundamental questions about the health of our coastal environment. In recent years, SCCWRP has expanded its efforts by having a more land-based or watershed level focus to help us address coastal problems that initiate from the land, such as urban and stormwater runoff carrying pollutants into coastal waters. SCCWRP has been involved in collecting water quality information on urban creeks, storm drains, and other conveyances that drain into our coastal waters. The research helps up to understand the contribution of land sources to coastal pollution and what management actions need to be taken to help reduce or eliminate such sources. The collaborative approach provides practical, technical assistance to public agencies to help us better manage coastal discharges and impacts to the marine environment.



Appendix C, Executive Summary

EPA's Goals

- Goal 1: Clean Air and Global Climate Change
- Goal 2: Clean and Safe Water
- Goal 3: Land Preservation and Restoration
- Goal 4: Healthy Communities and Ecosystems
- Goal 5: Compliance and Environmental Stewardship

Region 9 Priorities for FY04 and FY05

- Address significant and complex air quality issues in California's San Joaquin Valley; South Coast area of California; Phoenix, Arizona; Clark County, Nevada; US/Mexico Border area of California and Arizona; Diesel exhaust along west coast
- Reduce greenhouse gases
- Promote and support Community-based Toxics Reduction Initiatives
- Utilize watershed approach to coordinate variety of water programs
- Address protection of beaches
- Replace large capacity cesspools in Hawaii
- Continue geographic priorities, such as CALFED, Lake Tahoe, and National Estuary Programs
- Meet new arsenic drinking water standard
- Address and minimize environmental impact of waste from California dairies
- Address environmental threats to fragile coral reefs
- Foster wetlands protection and restoration
- Control and cleanup contaminated properties through Superfund Program
- Ensure Region 9's continued preparedness to respond to emergencies
- Promote resource conservation

Region 9 Priorities for FY04 and FY05, Cross-Goal

- Ensure that tribal communities have access to safe drinking water and wastewater systems, and can respond to illegal or "midnight dumping," noncomplying landfills, absence of adequate infrastructure to dispose of wastes, and closure of solid waste open dumps
- Ensure that Pacific Islands have access to reliable, safe drinking water; wastewater systems in place; adequate solid waste management; and natural resource destruction (coral reef, wetlands, fisheries) minimized
- Implement US/Mexico Border 2012 Plan
- Address significant environmental impacts caused by intensive agriculture production
- Ensure unique needs of Southern California are addressed
- Assure Compliance
- Address Human Capital
- Promote Science
- Collect and Convey Environmental Information



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- Protect Sensitive Populations, including children's health
 - Assure Regional Accountability
 - Promote Environmental Justice
 - Address Pesticides and Worker Protection
 - Prioritize Collaborations/Pollution Prevention/Innovations

