U.S. Environmental Protection Agency
Region 8

REGIONAL STRATEGIC PLAN

EPA United States Environmental Protection Agency

April 2004

Message from the Regional Administrator
April 2004

I am pleased to present our Regional Strategic Plan, which will guide Region 8's work through fiscal year 2008. With a focus on environmental results, our Regional Plan provides a broad view of regional strategies to achieve the five goals identified in EPA's National Strategic Plan: clean air and global climate change; clean and safe water; land preservation and restoration; healthy communities and ecosystems; and, compliance and environmental stewardship. In upcoming years, we will supplement the Regional Plan with annual regional commitments and targets.

The wealth of Region 8's natural resources, coupled with rapidly increasing growth and economic development, present unique challenges in environmental protection. The Regional Strategic Plan articulates these challenges and presents strategies to overcome them. Our five unique priorities - agriculture, direct implementation, energy, homeland security and revitalization - have been developed in response to regional challenges and are reviewed in the plan's overview and integrated into each subsequent goal and section.

In the upcoming years, EPA Region 8 and our partners will work diligently to fulfill the goals and strategies discussed in the following pages. This plan will help the Region and our partners achieve EPA's mission to safeguard the natural environment and protect human health. I thank our state and tribal partners and the Agency for their assistance in developing this plan.

Robert E. Roberts
Regional Administrator

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Executive Summary

Region 8's Strategic Plan maps out the approach we will take to achieve a healthier and cleaner environment for the next five years, identifying regional strategies to achieve both national goals and regional priorities. The plan has five discrete sections, beginning with an overview of the Region and followed by a review of our strategies to achieve national goals, cross-goal strategies, regional accountability system and EPA's partnerships with states and tribes. This plan broadly addresses the Region's key and overarching contributions to Agency and regional objectives and is not intended to be an exhaustive presentation of our work. A section with specific annual targets and commitments will be added to the plan each year. Our regional priorities - agriculture, direct implementation, energy, homeland security and revitalization - are integrated into the sections, goals and individual programs presented.

Strategy Summary

Goal 1: To achieve healthier outdoor air, the Region's approach includes pursuing innovative voluntary measures; monitoring growth and development trends; conducting ambient air monitoring; reviewing state permits; and, working proactively with our states and tribes to assure air quality violations or visibility impairments do not occur. In addition, we will work with states to effectively control and monitor toxic emissions. To reduce greenhouse gas intensity, EPA manages programs such as Energy Star and Commuter Choice that aim to reduce energy consumption and improve air quality.

Region 8's strategy to achieve healthier indoor air focuses on educating minority and sensitive populations (e.g., children, seniors, tribes). The Region will also work with schools to eliminate indoor air risks and support states in their work to address radon. Region 8 coordinates radiation program activities with the RCRA (Resource Conservation and Recovery Act), Superfund, Emergency Response and Drinking Water programs to respond to terrorist events and prevent releases from storage and waste sites.

Goal 2: Under the goal of clean and safe water, the Region manages various programs that protect ground water, surface water and drinking water. To improve compliance and prevent environmental risks, the overarching strategies of these programs include (as appropriate) maintaining up-to-date permits; supporting state and tribal efforts in developing and maintaining programs; providing technical assistance and innovative approaches to states and tribes; assisting states and tribes in implementing new rules; and developing plans to address water quality issues.

A key Region 8 goal is to restore and protect water quality on a watershed basis. To do this, we will continue to directly support efforts to restore and improve the quality of rivers, lakes and streams. In addition, we will continue to identify the strongest candidates for funding support, as well as leverage funds across several water and multi-media funding sources to maximize assistance for watershed efforts.

Goal 3: One of the Region's primary efforts to preserve and restore land is centered around the areas of reducing waste and promoting recycling and energy recovery activities. The Region will properly manage hazardous waste and petroleum products and increase compliance rates. Together with the Region's states, the primary implementers of RCRA, we will use various tools such as the multi-year strategic work plan to promote and track progress towards program goals.

With respect to our Superfund program, Region 8 will leverage resources to clean up the most serious hazardous waste sites. We will continue to promote the integration of remedy selection and implementation and site reuse with state and local authorities, responsible parties and landowners. The Region will continue to respond to releases of hazardous substances and oil.

Goal 4: In the next five years, the Region will reduce chemical, organism and pesticide risks. Progress will be made by targeting sensitive populations, grower groups and non-English speakers. EPA will reduce risks at facilities and promote chemical safety awareness. To help sustain and restore community health, our regional strategy emphasizes environmental justice and working with sensitive populations. To remediate, reuse and revitalize damaged ecosystems or polluted sites, the Region and its partners will focus on multi-program planning.

To protect and restore ecosystems, Region 8 will use ecosystem assessments to drive future ecosystem management activities and the development of environmental indicators and information. Our assessments will use improved modeling, geospatial tools application and more effectively coordinated and enhanced delivery of EPA's programs to help provide information to meet present challenges. EPA will continue to support community-based efforts to manage watersheds and other natural resources. Additionally, we will work with states and tribes through the wetlands grant program to develop aquatic habitat and monitoring tools.

Goal 5: Region 8 will work cooperatively with state, local and tribal partners to secure and maintain compliance by the regulated entities. The Region will pay special attention to areas and/or programs where we have primacy (non-delegated programs, tribal) in order to make the best use of our resources. To reduce noncompliance and associated environmental risks, Region 8 and its partners will provide compliance assistance to promote understanding of environmental regulations; offer incentives that encourage facilities to identify violations and return their facilities to compliance; monitor compliance through inspections and investigations; and conduct civil and criminal enforcement actions to correct violations and deter future noncompliance. By combining these tools to address specific problems, EPA and our partners can prevent and reduce pollution, thereby protecting human health and the environment.

The regional pollution prevention strategy is to connect people to tools and resources to continually improve their environmental performance. We will continue to work with states and tribes, other federal agencies, businesses and communities to improve pollution prevention efforts. Also, the NEPA (National Environmental Policy Act) program will continue to work proactively to identify environmental impacts (e.g., due to energy, transportation, water supply development, etc.) and work with lead agencies to eliminate or mitigate those impacts.

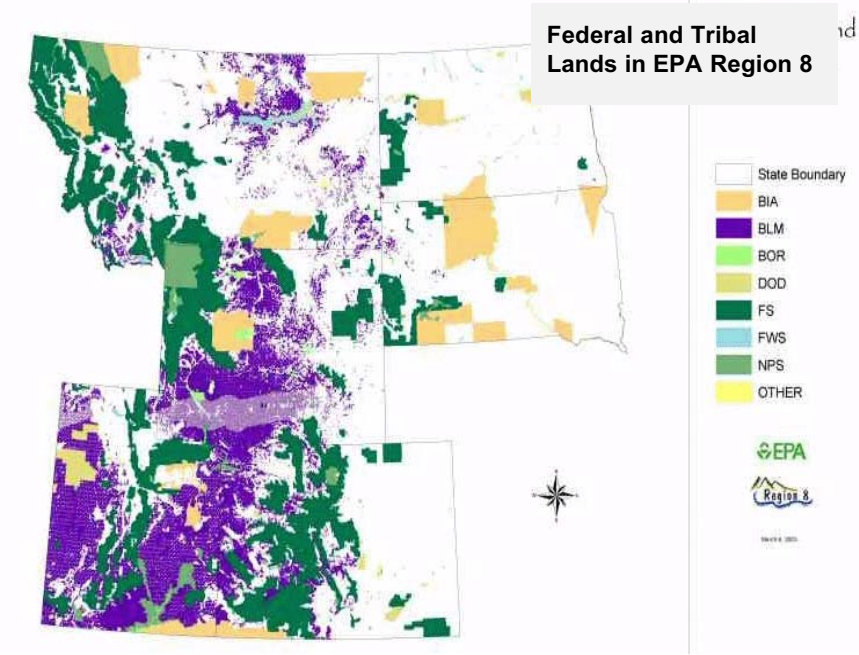
Section 1: Overview

Introduction

The Environmental Protection Agency (EPA) has been working to protect human health and the environment for more than three decades. EPA's Region 8 office in Denver carries out that mission in Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 sovereign tribal nations. We share this challenging work with many partners – state, local and tribal governments, businesses, non-governmental organizations, communities and individuals.

EPA Region 8 is unique. Our state and tribal lands encompass the heart of the American West, including much of the Rocky Mountains, Great Plains and Colorado Plateau. Over two-thirds of our roughly 10 million people live in two distinct bands of urban development – Colorado's Front Range and Utah's Wasatch Front. These areas, along with a few isolated cities and towns, are experiencing rapid population growth. The Region is also home to some of the most rural counties in the nation. Characterized by vast open spaces– mountains, plains, canyons and deserts – and small, concentrated population centers, these areas still maintain some of the wild, frontier character that many associate with the West. They also contain many of our nation's most recognizable landscapes, including Yellowstone, Glacier, Rocky Mountain, Badlands, Zion, and dozens more National Parks and Monuments, millions of acres of forests, and still more range, farm and grassland.

Our Region is also arid, placing a premium on the availability and quality of water resources to meet competing demands from farmers, municipalities and recreationists as well as ecological needs. Many rivers originate in the Rocky Mountain States including the Missouri, Rio Grande, Colorado, Arkansas and Platte Rivers; their waters are vital sources of life for people, plants and animals.



Land ownership patterns also influence EPA's work in Region 8. Public lands – including those managed by the US Forest Service, the Bureau of Land Management and the National Park Service – comprise over one-third of the land area in our Region, making EPA's success dependent on our ability to work with other federal agencies. Tribal nations, which collectively cover an area greater than the size of Tennessee, are also prominent. EPA

Region 8 works closely with each of these 27 sovereign nations to protect human health and safeguard the natural environment.

Above all, our Region is defined by an abundance of natural resources, from natural gas, coal and oil deposits to vast expanses of wilderness rich in natural diversity. These resources support our states, tribes and local communities and are a vital part of our regional and national identity. Region 8's economies – including agriculture, energy development, mining, recreation and tourism – thrive on these resources.

EPA's statutes and our work with states and tribes

Since its inception, EPA has been given authority to implement and enforce numerous federal laws and regulations, which have given rise to programs that protect human health and the environment. These laws, listed below, focus on protecting our air, water, land, food and ecosystems.

Statute	Provisions
Asbestos School Hazard Abatement Act and Asbestos Hazard Emergency Response	Authorizes EPA to establish regulatory framework for controlling asbestos hazards in schools.
Clean Air Act	Authorizes EPA to set emissions standards to limit the release of criteria pollutants and hazardous air pollutants.
Clean Water Act	Requires EPA and states to establish list of water pollutants, set standards and identify impaired waters.
Comprehensive Environmental Response, Compensation, and Liability Act (Superfund)	Requires EPA to designate hazardous substances and authorizes the cleanup of contaminated sites.
Emergency Planning and Community Right-to-Know Act	Requires states to respond to hazardous chemical releases and industries to report on the presence/release of hazardous substances.
Endangered Species Act	Requires EPA consultation with Fish and Wildlife Service to ensure its actions do not adversely affect listed species or critical habitat.
Federal Food, Drug, and Cosmetic Act	Authorizes EPA, with FDA, to establish tolerance levels for pesticide residues on food.
Federal Insecticide, Fungicide, and Rodenticide Act	Authorizes EPA to register pesticides, specify terms and conditions of their use, and remove hazardous pesticides from the market place.
National Environmental Education Act	Provides for education on the environment to encourage students to pursue careers related to the environment.
National Environmental Policy Act	Provides national policy requiring environmental impact

	statements describing potentially adverse effects of, and alternatives to any major Federal action. Established the Council on Environmental Quality.
Oil Pollution Act of 1990	**Makes EPA responsible for oil spill prevention, preparedness, response, and enforcement activities associated with non-transportation related onshore oil facilities.**
Pollution Prevention Act	**Provides that pollution should be prevented or reduced at the source, or recycled, treated or disposed of safely when not preventable.**
Resource Conservation and Recovery Act and Solid Water Disposal Act	**Authorizes EPA to identify hazardous wastes and regulate their generation, transportation, treatment, storage, and disposal.**
Safe Drinking Water Act	**Requires EPA to set drinking water standards to protect public health from hazardous substances.**
Toxic Substances Control Act	**Requires EPA notification of any new chemical prior to its manufacture and authorizes EPA to regulate production, use, or disposal.**

EPA delegates the responsibility for implementing and enforcing many environmental laws to those states and tribes with a desire and ability to do so. In these situations, EPA's role is focused on technical assistance and oversight. Congress, however, has specified that some environmental laws, like Superfund, are to be primarily implemented by EPA. For these laws, EPA Regional offices implement programs directly. EPA Region 8 has a large workload associated with directly implementing many core environmental programs.

Region 8 Successes

Since 1970, EPA's efforts to implement and enforce environmental laws have achieved remarkable success protecting human health and the environment. Nationally, our air is cleaner, our water is purer, our drinking water and food are safer, and our land is cleaner than when we started. And here in Region 8, EPA, states and tribes have also achieved impressive results.

Air is dramatically cleaner. Region-wide, air monitoring trend data from 1981-2001 indicate that carbon monoxide concentrations have been cut by 68 percent, lead by 96 percent, sulfur dioxide by 41 percent, particulate matter by 22 percent and ozone by 15 percent. The Region's biggest urban areas, Denver and Salt Lake City, have made dramatic strides in reducing air pollution due to controls on automobiles and industry. Denver, which routinely violated federal air standards in the 1970s, recently celebrated reaching attainment for each of the six major air pollutants regulated by the Clean Air Act. Success is not just limited to urban areas. The air is also cleaner in many smaller cities like Great Falls, Montana, where carbon monoxide concentrations have been cut by 50 percent since 1987.

Water is purer. Since 1972, permit programs that limit pollution have significantly improved water quality in rivers and lakes across the region, leading to water that is safer for swimming,

fishing and drinking. More than 2,000 pollution sources are covered under these programs, preventing millions of pounds of pollutants from entering Region 8's waters each year. Other programs to protect and restore ground and surface waters have led to cleanups at over 14,000 leaking underground storage tanks in our states and tribal lands, have helped communities revitalize rivers and streams across the Missouri, Colorado, Rio Grande and Platte River basins, and have contained and eliminated risks to local water resources at thousands of hazardous waste sites. In addition, drinking water rules and regulations – and EPA's technical and financial support to help water systems meet them – have assured that well over 95 percent of the Region's population consistently receives water that meets all health-based standards.

Land is better protected. EPA Region 8's Superfund program has successfully cleaned up or is in the process of cleaning up more than 50 sites with serious hazardous waste contamination, including former mine and smelter operations, federal military facilities, and other areas heavily contaminated by past industrial activity. Many of these sites are now back in productive use. EPA Region 8 also administers other programs to protect land. Region 8's hazardous waste program, for example, regulates facilities that use or produce dangerous substances and uses a cradle-to-grave waste management system that oversees their proper reuse or disposal. The Region's National Environmental Policy Act (NEPA) team has reviewed hundreds of projects on federal lands to make sure that the development and use of forests, grasslands and other sensitive natural areas minimizes environmental impacts.

EPA Region 8 shares this record of success with our state and tribal partners who have worked beside us to achieve environmental results. The work that state agencies and tribal governments do each day has been and will continue to be critical in achieving human health and environmental goals.

As environmental issues change in nature and context, so must we. Persistent and emerging challenges will require the strength of existing laws as well as innovative approaches. Ozone, for example, is re-emerging as an air pollution problem in some of our most populated areas. The clear vistas we enjoy at our parks and forests are threatened by new sources of air pollution. Runoff from mines, farms, and urban and suburban streets remains a stubborn source of water pollution. New, health-based drinking water standards are proving difficult to reach and costly to implement. Responsibilities associated with homeland security have added heavy workloads to environmental programs.

While there is important work to be done in many areas, EPA Region 8 has identified five distinct priorities that we will focus on with our partners in upcoming years. These are broad areas that cut across individual programs to include multiple issues and activities. They reflect issues common to most or all of our states and tribes. Collectively, they make up the context in which we will work with our partners to achieve and maintain cleaner air, purer water, and better protected land and ecosystems for years to come.

It is important to note that these Regional priorities do not diminish the importance of specific

priorities identified by our state and tribal partners. EPA will continue to support work in these areas, which are addressed in detail in Section 5 of this Plan.

Region 8 Priorities

Agriculture

In terms of geography, agricultural activities represent the largest land use and the most widespread set of potential impacts on the environment in our Region. Agriculture, and the industries it supports, is also one of the most important economic sectors for our states and tribes. With over half of EPA Region 8's land area devoted to crop and livestock production, our ability to help and encourage ranchers and farmers to practice environmental stewardship is critical.

Many environmental challenges are associated with agriculture. For example, a number of our rivers and streams are polluted with sediments, nutrients and pathogens that run off of fields and pastures. In some areas, pesticides have leached through soils and into ground water. The trend towards large-scale farming, particularly animal feedlots, presents challenges associated with the management of large volumes of animal waste. Drought conditions in many of our states and tribal lands are placing economic strains on producers and increasing water quality concerns. The spread of Chronic Wasting Disease in deer and elk in Region 8 and the recent discovery of Bovine Spongiform Encephalopthy in one cow in Washington are important concerns for regional livestock producers, government agencies and animal health professionals.

Region 8's objectives include developing effective partnerships and ensuring the adequacy of programs that address agricultural impacts. The Region is committed to forging strong relationships with producers, federal, state and local agencies and others to enable agricultural economies to thrive while improving environmental performance. This includes work with partners to implement the new Concentrated Animal Feeding Operations (CAFO) rules, promote pollution prevention on farms and within agribusiness, encourage stewardship and conservation practices for agricultural lands, assess the potential impacts of biotechnology, and assist in the development of environmental management systems within agricultural businesses.

Direct Implementation of Environmental Programs

EPA Region 8 has a large workload directed toward implementing environmental programs on tribal lands, in states that have not accepted program delegation for certain programs, and for programs that legislation does not allow us to delegate. Our Region is home to 27 tribal nations with a land area of 15 million acres. In almost all cases, EPA Region 8 is charged with implementing the full range of environmental programs on these tribal lands. Region 8 staff also implement many programs or portions of programs in states, including the bulk of the Safe Drinking Water program in Wyoming. In addition, the Region implements Superfund, Radon,

Underground Injection Control, Total Maximum Daily Load, Toxic Release Inventory and other programs, many of which legislation does not allow us to delegate to states.

Meeting these direct implementation responsibilities is critical to the protection of human health and the environment in Region 8. This challenge will continue to demand our attention and a large share of our resources, especially as increased activities in sectors such as energy and agriculture add workloads to programs. Region 8 also has a responsibility to make sure environmental programs protect sensitive and at-risk populations, including children, the aged, farm workers, low-income families and other groups that may be disproportionately affected by environmental impacts.

EPA Region 8 is also committed to helping our partners develop and maintain effective environmental programs. Immediate concerns relate to state budget shortfalls caused by prolonged, difficult economic conditions. Many state environmental programs continue to struggle with budget reductions. EPA may be able to offer short-term assistance by directly implementing limited portions of programs, thereby helping states maintain their authorizations. In Indian Country – where EPA is still the primary authority for environmental programs – the Region will continue to focus on delivering adequate programs and developing tribal capacity. We also recognize the environmental and economic impacts of the current drought and will seek to ease drought-related burdens through direct implementation responsibilities and financial and technical assistance to states and tribes.

In the long term, EPA Region 8 will continue to implement effective environmental programs that yield tangible environmental and human health benefits. EPA will assist states with delegated programs as appropriate. On tribal lands, our goal is to help tribes develop the necessary resources and expertise to assume more programs.

Energy

EPA Region 8's six states and 27 tribal nations collectively contain extensive fossil fuel and renewable energy resources – so extensive that the Region is in many ways the center of the nation's energy future. With the current emphasis on resource extraction and electricity production to meet growing demand and foster national security, energy projects in our Region are increasing. More mines and wells are being developed, more power plants are being built, and more pipelines and transmission lines are being constructed.

EPA Region 8's programs protect air, water, land and ecosystems from the potential impacts of energy development and production.

Specific objectives include making sure that air quality and visibility are not degraded by power plant emissions; rivers, drinking water sources and ground water are protected from polluted runoff and wastes; and ecosystems and wetlands are preserved as infrastructure expands. Strengthening partnerships is also critical. Region 8 is engaged with federal agencies and states through the Rocky Mountain Energy Council – a coordinated effort to increase efficiencies in the review and permitting of energy activities. These partnerships will maximize resources and expedite and ensure environmentally protective development.

Promoting energy efficiency and renewable energy resources are important components of our energy priority. Many areas in our Region are beginning to tap vast wind-energy potential through the construction of wind turbines and transmission lines. EPA Region 8 is encouraging these types of projects by incorporating them into enforcement settlements and by sharing information and technical assistance to partners. In addition, EPA programs such as ENERGY STAR® promote energy efficiency in homes, businesses and public places. This work achieves substantial energy and cost savings as well as pollution reductions. Through greater efficiency and the development of cleaner sources, we can help meet growing energy demands and protect the environment.

Our energy strategy goals are as follows:
Goal 1: Ensure efficient and timely environmental decisions about energy projects.
Goal 2: Continue to meet environmental requirements and maintain or improve environmental quality with respect to energy projects.
Goal 3: Promote energy efficiency and renewable energy.
Goal 4: Strengthen environment and energy partnerships with co-regulators and other stakeholders.

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Homeland Security

As part of the federal government's efforts to improve preparedness and the ability to respond to terrorist attacks, EPA has been called upon to play a strategic role in homeland security. The President has delegated to EPA the responsibility for safeguarding the nation's drinking water supplies and delivery systems and to take the lead on responding to biological, chemical and hazardous waste risks posed by potential terrorist attacks.

One of EPA's most important roles is responding to emergencies. EPA provided time-critical responses to the attacks on the World Trade Center and the anthrax contamination on Capitol Hill. In the event of an attack or a disaster, our Region is ready to provide technical expertise, emergency response and further protection for any threats to health and environment. EPA Region 8 possesses unique capabilities to collect, synthesize, interpret and communicate complex information about possible contaminants and the condition of the environment. These include highly skilled emergency

response coordinators, extensive links to state and local responders and sophisticated laboratory analysis and monitoring skills. Region 8 has also established a Regional Operations Center focused on emergency communications and coordination.

Prevention and safeguarding vulnerable infrastructure and materials is also an important part of our homeland security mandate. Region 8 has taken steps to promote security awareness for industrial and municipal facilities, as well as businesses and communities. We will continue to work with our federal, state, tribal and local partners to improve our ability to prevent, prepare for and respond to any types of incidents that threaten human health and the environment.

Our Region's objectives in this area focus on strengthening the communications network we have established with federal, state and local response authorities; enhancing expertise and readiness through training and coordinated exercises; and taking additional steps to secure infrastructure and hazardous materials. In the long term, our efforts will minimize the likelihood of terrorist incidents and assure our ability to provide time-critical and coordinated responses to any incidents that do occur.

Revitalization

"Revitalization" is a term EPA uses to describe efforts to bring impaired ecosystems and polluted areas back into productive use. By restoring land and water to productive use, EPA and our partners are helping secure a sustainable quality of life for future generations. The revitalization initiative emphasizes that cleanup and reuse are mutually supportive goals. It emphasizes that property reuse be part of how EPA operates in support of state, tribal and local efforts to create and protect green spaces, natural areas and scenic landscapes, while minimizing undesired sprawl and encouraging economic reinvigoration.

Traditionally, the Superfund and Resource Conservation and Recovery Act programs have been responsible for cleaning up many of the Region's contaminated sites. Many of these are high risk sites, with long and costly cleanups. More recently, the Leaking Underground Storage Tank (LUST) and Superfund Brownfields programs have filled a much needed niche for smaller, faster, community revitalization efforts. In addition to these programs, activities under the Urban Rivers Restoration Initiative as well as the Clean Water Act's Non Point Source, Wetlands and Watershed Initiative, Total Maximum Daily Load and Water Quality programs (including source water and ground water protection programs) help states, tribes and local governments

revitalize communities with millions of dollars worth of technical assistance and economic grants.

Region 8 has had many successes that emulate the revitalization initiative agenda (e.g., see before and after pictures of Utah's Gateway District revitalization, above). More can be done. The challenge is to achieve these types of successes, more often and as a normal course of operations.

Together with our state, tribal and local partners, Region 8 will strategically focus existing multi-program planning. We will achieve environmental results at remediation, restoration and reuse sites, as well as at watershed restoration areas. As an example, EPA is focusing on integrating watershed activities and Superfund site assessments at Left Hand Watershed, San Juan Mountains Geographic Focus Area, among other sites. As a result, sites will be assessed comprehensively to determine the extent and sources of contamination and, if necessary, be cleaned up and restored using various resources. This will provide more certainty and comfort to state, tribes, local governments, communities and businesses about land and water resources and their readiness for reuse.

Region 8 has adopted a set of goals to achieve even more measurable results and to further the understanding of its Revitalization Initiative. These goals include:

- Achieve effective outreach, communication and education for all revitalization activities.
- Achieve effective on-the-ground results, that are part of the Revitalization Initiative, in geographic pilot projects and at site specific locations.
- Establish revitalization as a new operations model and as a part of our job.

In addition, Region 8 has developed criteria to guide decision making and measure success in the pursuit of revitalization goals. These criteria identify the most important steps our programs need to take in order to fully realize revitalization goals. They include:

- Early and intentional multi-program integration of cleanup activities
- Innovative approaches for revitalizing sites, communities, watersheds and ecosystems
- Early and intentional planning for reuse at the beginning of projects
- Clearly measurable improved environmental and human health results.

Section 2: Regional Strategies for Achieving National Goals and Objectives

Goal 1: Clean Air and Global Climate Change

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

Objective 1.1: Healthier Outdoor Air

Sub-objective 1.1.1: More People Breathing Cleaner Air

A) Current Conditions:

For the vast majority of areas, Region 8 has reached attainment of all air quality standards by working closely with state, tribal and local partners to successfully address particulate matter (PM), carbon monoxide (CO) and ozone issues. Recent calculations indicate that approximately 60 percent of the Region's population live in areas attaining all of the air quality standards, 10 percent live in a PM10 (particulate matter less than 10 micrometers in diameter) non-attainment area and 30 percent live in an area not attaining the ozone standard.

PM10: The Region had 21 PM10 non-attainment areas (18 State and three Tribal), 20 of which were either re-designated to attainment or were attaining the standard until 2001 when Salt Lake City violated the national ambient air quality standards (NAAQS) primarily due to fugitive emissions from tailings piles from mineral extraction activities. There have been PM10 NAAQS exceedances and the PM10 increment has been consumed since triggering of the baseline date in the Powder River Basin (WY/MT) in proximity to energy development (i.e., coal mining and coal bed methane) and PM10 NAAQS have been exceeded in southwest Wyoming (Carbon and Sweetwater Counties).

Ozone/PM2.5: Salt Lake City currently meets new standards for 8-hour ozone and PM2.5 (particulate matter less than 2.5 micrometers diameter), but average 8-hour ozone levels are close to the standard. Four sites in Salt Lake County and one in Weber County have three-year design values between 80 - 82 parts per billion (ppb). The 2000 ozone season in Utah was particularly severe. Some areas would have had 8-hour NAAQS violations, but their high ozone values were determined to have been influenced by wildfire smoke. In summer of 2003, Denver violated the 8-hour ozone NAAQS (80 ppb) after having been in attainment. For the years 2001 - 2003 (preliminary data for 2003), the Denver area had two suburban counties with ozone design values between 85 - 87 ppb. Denver is an Ozone Early Action Compact Area, and is working to develop control measures to reduce emissions to bring the area back into attainment. In addition, Rocky Mountain National Park, northwest of the Denver area, is experiencing increased ozone levels most likely from sources along the Colorado Front Range. Libby, Montana, is currently the only area within the Region violating the PM2.5 NAAQS. EPA Region 8 will work with the Montana

Department of Environmental Quality to address air quality in this area.

PSD for Nitrogen Oxides (NO_x), Sulfur Dioxide (SO_2), Regional Haze: Region 8 is an energy exporting Region. We export vast quantities of coal and natural gas and provide much of the electricity for neighboring states. In addition, our Region is the only part of the country that is increasing natural gas production. The growing demand for fossil fuel resources and energy production creates challenges for the Prevention of Significant Deterioration (PSD) program. Recently, the focus has been on whether increment violations have occurred in North Dakota and Montana. In Wyoming, there has been concern about increment consumption where recent Bureau of Land Management air quality modeling analysis indicates future consumption of the allowable PM10 increment (Campbell County) and the NO_x increment (Northern Cheyenne Class I area) related to coal bed methane development. At the same time, Region 8 is working with the Western Regional Air Partnership to secure emission reductions necessary to meet regional haze goals.

B) Regional Trends/Challenges:

The Region's most significant air quality challenges will arise from increased energy exploration and development, power generation, population growth and development and persistent drought.

PM10: Rapid coal bed methane development in the Region, particularly in the Montana/Wyoming Powder River Basin could result in 7,000 diesel generator compressor stations and over 9,000 miles of new primary dirt roads. This area also has several of the largest open-pit coal mines in the world. The Region and our state and tribal partners will need to adopt mitigation strategies to reduce road dust and reduce emissions. EPA Region 8 actively participates in state and interstate workgroups formed by the Bureau of Land Management to coordinate activities in the Basin. In addition, EPA has provided a grant to the Wyoming Department of Environmental Quality to research the effectiveness of road dust mitigation strategies and the economic feasibility for reducing emissions from coal bed methane development, coal mining and rural roads. Persistent drought in the Region complicates dust control strategies and has increased the frequency of forest fires. Wind erosion from fields or rangeland and occasional agricultural burning sometimes contribute to PM10 pollution. Forest fires increase levels of PM10 and PM2.5 and affect ozone which contributes to visibility issues and increased incidence of asthma, especially where development increasingly borders national forests. Salt Lake City's PM10 challenges include controlling emissions from mobile and stationary sources, and finding a new treatment strategy for fugitive emissions from construction, agriculture and vacant/abandoned disturbed land.

Ozone and PM2.5: Through an Early Action Compact, the Denver area will be working to address ozone controls to bring the area back into attainment. While the rest of the Region currently meets standards for the new 8-hour ozone and PM2.5 standards (except Libby, Montana), projected population growth and development increase the risk of standards violations, particularly in the Salt Lake City and Denver metropolitan areas.

PSD for NO_x, SO_2, Regional Haze: Because we have few significant areas of non-attainment,

Region 8's primary focus is preventing significant deterioration, particularly in the Region's 39 areas where air quality is most protected (known as Class I designation areas) which include three Indian Reservations (Northern Cheyenne, Fort Peck and Flathead). Adding new sources of NO_x and SO_2 could trigger future PSD violations and contribute to further impairment of visibility and regional haze. Even though Wyoming has protective emission standards for diesel generators and gas-fired compressors, it is estimated that compressor stations will need to service 70,000 coal bed methane wells in the Powder River Basin, representing a growing source of both NO_x and PM10. The Region is also a net exporter of power, and all of Region 8's states have planned or are contemplating new coal-fired power plants to meet growing power requirements in the Midwest and California. North Dakota exports more than 70 percent of the power it generates and plans to build new power plants. The Region has been in discussions with the North Dakota to determine whether its emissions could create SO_2 increment violations in Class I areas and if the modeling protocol is sufficient to accurately predict violations. Many tribes are developing renewable and nonrenewable energy resources (e.g., refineries). The Northern Cheyenne Reservation, which is a designated Class I area, has informed the Region of concerns with potential coal bed methane emissions.

Tribal Authority Rule: Seven of Region 8's 27 tribes have been authorized for treatment as a state under the Clean Air Act (CAA), and several are developing tribal implementation plans and operating permit programs.

C) Regional Strategies/Approaches/Tools:

The Region's approach to maintaining air quality includes pursuing innovative voluntary measures; monitoring growth and development trends; conducting ambient air monitoring; reviewing state permits; and working proactively with our states and tribes to evaluate proposed development and model impacts to assure PSD violations or visibility impairment don't occur.

PM10: Utah continues to develop a PM10 Maintenance Plan for Salt Lake City/Davis County and Utah County as well as the Natural Events Action Plan for exceedances of NAAQS caused by natural events. In addition, the Region encourages states to use the Limited Maintenance Plan for PM10 in moderate non-attainment areas.

Ozone & PM2.5: For ozone, the Region will continue to work with the Colorado Department of Public Health and Environment in addressing violations through the Early Action Compact process. For PM2.5, Region 8 will continue to monitor ambient air quality trends – with a focus on Salt Lake City and Denver – to identify trends and impacts of growth and development and the potential benefits of newer, cleaner vehicles.

PSD for NO_x, SO_2, Regional Haze: The proposed Clear Skies legislation will have the greatest applicability in North Dakota. There, the cap and trade program may provide incentives for high-sulfur, lignite coal-fired power plants to implement capital improvements. In the interim, the Region will continue to address PSD increment concerns, working with the North Dakota Department of Health to resolve air modeling projection issues and pursue improvements to

existing facilities. In Montana, the Region is sponsoring state/tribal dispute resolution to assure current and projected coal bed methane development is incorporated into the state's increment projections to protect future development opportunities. The Region will continue to work with our states and tribes to ensure that sources are properly permitted. The Region also actively participates in the Western Regional Air Partnership committees and work groups addressing cross-border haze issues and planning regional haze reductions.

Voluntary Measures: The Region will continue to emphasize voluntary programs to improve local air quality, including: ENERGY STAR®, Ag Star, Commuter Choice, the Diesel Retrofit program, innovative voluntary measures to offset development and the use of supplemental environmental project (SEP) penalties to fund environmental projects. In addition, the participation of Salt Lake City and Denver in the AIRNow program will continue to provide valuable information to the public to make decisions about personal activities which could reduce air quality effects on days when the air quality is of concern.

D) Primary Measures of Progress: (EPA will discuss issues revealed through tracking with state air directors.)

- XX percent of the population live in areas that attain air quality standards
- Progress in re-designating non-attainment areas to attainment
- Title V permits: universe permitted
- NSR (New Source Review) permits
- For tribes without air monitoring programs, EPA will alert them about NAAQS exceedances from monitors within the vicinity. All Region 8 tribes can access the Air Quality System (AQS) which provides data on ambient concentrations of criteria pollutants via a request to EPA or by obtaining AQS password approval.

<u>Sub-objective 1.1.2: Reduced Risk from Toxic Air Pollutants</u>

A) Current Conditions:

Region 8 does not have the population density or concentration of heavy industry that contribute to air toxics issues present in other parts of the country. While not conclusive, monitoring results to date have identified no significant issues.

Monitoring: The Region has two air toxics trend monitoring sites (Grand Junction, Colorado and Bountiful, Utah) which also use the Urban Air Toxics Monitoring Program (UATMP). South Dakota also conducts monitoring under the UATMP. In addition, the Spirit Lake Sioux are now conducting air toxic monitoring activities to better understand emissions and potential impacts to the local community from a tribally-owned manufacturing facility.

Community Assessment: Region 8's involvement in community assessment has been very limited and has focused upon single known sources of toxics including a steel mill in Pueblo, Colorado and oil and gas wells in Parachute, Colorado.

B) Regional Trends/Challenges:

Regional challenges include projected population growth in Denver and Salt Lake City and the related increase in toxic sources (mobile, area and major sources). Energy development and power generation are growth industries expected to increase air toxics emissions.

C) Regional Strategies/Approaches/Tools:

Region 8 efforts to date have focused on Maximum Achievable Control Technology (MACT) delegation, enforcement/oversight, incorporation of toxics requirements in air permits, air toxics monitoring, community implications of toxics emissions and outreach on reducing toxics emissions from diesel engines. Mobile sources, a consistent source of air toxics for the Region, are being addressed by national programs to reduce vehicle emissions. Limited research is being conducted nationwide to characterize emissions from various animal feeding operations and develop suitable control strategies. Air toxics is a lower priority for our states and tribes in part due to current monitoring results and a limited staff. Part of the Region's strategy is to integrate air toxics into other existing regional and state programs, to take advantage of program synergies and raise awareness. The Region will continue partnering with states and tribes to evaluate risks, particularly where there may be more localized impacts, to develop voluntary options for emissions and risk reduction and to communicate with affected industries and communities. The Region's Environmental Justice program has initiated efforts for the Northeast Denver neighborhood to better characterize and reduce exposures primarily from mobile sources.

D) Primary Measures of Progress:

- % high risk areas with monitors
- % population living in areas with air toxics monitors
- Reductions [tons] in air toxics from regional/partner activities
- Increased ambient air monitoring in Indian Country as appropriate.

Objective 1.2: Healthier Indoor Air

A) Current Conditions:

Radon: Radon testing in Region 8 has shown that we are above national norms in homes and buildings, with some of the highest levels of radon in North America.

Asthma Prevalence Rates: The following prevalence rates come from the Centers for Disease Control and Prevention (CDC) and are based on the 2000 Behavioral Risk Factor Surveillance System (a telephone survey). These are adult, self-reported rates that do not include pediatric rates. The overall Region 8 rate is 7.4 percent, with over 452,928 cases of asthma.

State	Prevalence (%)	Prevalence (#)
Colorado	6.6	199,982
Montana	8.3	53,246
North Dakota	7.4	34,316
South Dakota	5.6	29,384
Utah	7.6	106,714
Wyoming	8.6	29,286

B) Regional Trends/Challenges:

The challenge is to educate states, tribes, partners and the general public and to encourage active participation, since "indoor air" is a voluntary program. The high levels of radon in the Rocky Mountain region are a public health concern that will require significant, ongoing public outreach to test and mitigate radon in homes.

C) Regional Strategies/Approaches/Tools:

The Region 8 strategy focuses on educating minority and sensitive populations (e.g., children, seniors, tribes). Programs such as Tools for Schools and the State Indoor Radon Grant (SIRG) program work towards accomplishing indoor air improvement. We also work with the Indian Health Services, and other partners and associations, to educate others on the relationship of indoor air environmental pollution to public health.

D) Primary Measures of Progress:

Radon metrics will continue to be reported by states and tribes to the Radon Grant Project Officer based upon the number of homes tested, mitigated and constructed with radon-resistant construction, annually. Region 8 will award Radon Grants (SIRG) to tribal programs in order to better quantify radon concentrations in homes, ambient air, schools and water. These data will better substantiate health effects, improve indoor environments (IE) both in homes and schools and correlate high radon areas in the Region 8 tribal lands. Region 8 will provide appropriate tools and assist tribes in assessing indoor air pollution concerns. As appropriate, Region 8 will work with other federal agencies to provide guidance and assistance on how to reduce the exposure levels of contaminants in all tribal communities.

Asthma metrics are dependent upon competitive IE grants funding and the objectives of each grant. Grant results will be reported annually or upon completion of the grant.

Indoor environments improved air quality within schools is monitored using Tools for Schools (TfS) metrics as reported annually to EPA's Office of Radiation and Indoor Air (ORIA). EPA's voluntary IE programs cannot measure IE metrics within workplaces or homes unless the workplace is another federal agency or EPA is invited into private residences.

Objective 1.4: Radiation

Sub-objective 1.4.1: Enhance Radiation Protection
Sub-objective 1.4.2: Maintain Emergency Response Readiness

A) Current Conditions:

Region 8 has numerous mill tailings and Superfund sites resulting from historic uranium mining and milling activities. EPA oversees National Emission Standards for Hazardous Air Pollutants (NESHAP) for items that include mill tailings, the Yucca Mountain High Level Waste Repository and related Superfund site cleanups located in Region 8. Radiation personnel provide risk assessments, fate-and-transport computer modeling for various Superfund sites and support for the radiation dosimetry program and emergency response activities.

B) Regional Trends/Challenges:

Primary challenges involve maintaining personnel and equipment readiness in preparation for: emergency response to potential terrorist threats; technical assistance certifying drinking water laboratories; and, inspections at RCRA (Resource Conservation and Recovery Act) and disposal facilities, Superfund sites and uranium mines.

C) Regional Strategies/Approaches/Tools:

Region 8 has a cross-program strategy to coordinate radiation program activities with RCRA, Superfund, Emergency Response and drinking water programs to respond to terrorist events and prevent releases from storage and waste sites. Regional strategies include participating in emergency response exercises, increasing radiation training and improving federal, state, tribal, local and private sector communications.

D) Primary Measures of Progress:

- Number of exercises engaged
- Volume of "orphan sources" properly disposed.

Objective 1.5 : Reduce Greenhouse Gas Intensity

A) Current Conditions:

Region 8 is home to an estimated 500 companies and public entities participating in ENERGY STAR® programs, and Colorado is second only to California for buildings and homes that qualify for the ENERGY STAR designation. The Region currently has Commuter Choice programs in its two largest metropolitan areas, Salt Lake City and Denver, as well as a number of smaller mountain communities.

B) Regional Trends/Challenges:

The Region's challenge is finding ways to promote voluntary programs like ENERGY STAR and Commuter Choice in a part of the country where communities are geographically dispersed and many are experiencing economic strains. The strategies and tools that support this objective emphasize voluntary programs and partnerships targeted at areas where the Region's resources

can have the most impact. For ENERGY STAR, these areas are largely in the major metropolitan centers or are sector-based (e.g., schools or hospitals).

C) Regional Strategies/Approaches/Tools:
Commuter Choice: This relatively new program is currently promoted by EPA Headquarters directly to major employers in target cities. Region 8 views the program as one component of a larger transportation strategy which encourages communities to engage in long-term planning of growth, land use, major highway improvements and transit development as well as maintaining successful public transit ridership incentives (e.g., the Denver area Eco Pass program) to reduce the environmental and human health impacts of transportation.

ENERGY STAR®: The ENERGY STAR program for buildings provides the Region the greatest potential for reducing greenhouse gas emissions. The Region's strategy is to create alliances and partnerships with public/private associations, organizations and others that represent each sector within the building program to cultivate and foster market transformation.

Wind Energy: EPA will develop a generic guidance for key environmental activities, issues and requirements related to EPA's regulatory activities for wind projects. Because wind energy is one of the most cost-competitive renewable energy options, EPA will focus on guidelines for that resource first, rather than others such as geothermal, solar and biomass which each have their own associated environmental issues. The purpose of this document is to identify the environmental issues that must be considered in proposed wind energy projects for which EPA is involved, specifically for projects proposed on tribal and federal land or which use federal funding. The document will help ensure that wind energy projects are designed to minimize or avoid environmental impacts, thus streamlining the environmental review process for such projects. It may be useful to states, local governments and private parties for wind energy development. As an example, the Intertribal Council on Utility Policy seeks EPA participation to streamline the siting and construction of wind energy systems in the Region. With the completion of the guidance document, the Council and appropriate natural resource agencies (federal, state, local, tribal) will have a primer on EPA's environmental issues, concerns and approaches to wind energy production.

D) Primary Measures of Progress:
- Data on bench marking and re-bench marking of building with ENERGY STAR and ENERGY STAR Metrics (i.e., greenhouse gas emissions voided and dollars saved)
- Number of employers providing Commuter Choice or other commuter based programs to employees.

Goal 2: Clean and Safe Water

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

Objective 2.1: Protect Human Health

Sub-objective 2.1.1: Water Safe to Drink

Drinking Water

A) Current Conditions:

In 2002, 94 percent of the population in Region 8 served by community water systems received drinking water that meet all health-based standards in effect as of 1998, as compared with 83 percent compliance with the rules that were in effect in 1994. This includes Wyoming where EPA has responsibility to directly implement drinking water regulations. In Indian Country, where EPA also has direct implementation responsibilities, the rate was 88 percent. This equates to a population for the Region of approximately 11 million people who have access to safe drinking water.

The Drinking Water State Revolving Fund (SRF), which is used by all six states for drinking water-related projects and activities, has completed 163 projects out of 253 initiated, or 64 percent. The SRF program has awarded $378 million over the last seven years of which 74 percent has been utilized.

B) Regional Trends/Challenges:

A challenge to both state and EPA drinking water programs is to adopt approximately seven new rules issued between 2003 and 2007. Obstacles that EPA, states, tribes and individual water systems face include reduced budgets, hiring freezes, reductions in staff from attrition and increased technical needs. EPA and states may have to selectively divest from critical activities to implement the new rules that require increased inspections and assistance to the Public Water Systems (PWSs). States may request work-share efforts from Region 8 to provide technical assistance to PWSs and seek treatment relief for small water systems. These smaller systems do not receive as much revenue as large systems to pay for improved treatment. In addition to new rules, other challenges include adopting new directives from the Public Health Security and Bio-terrorism Preparedness and Response Act of 2002, which require vulnerability assessments and the implementation of control methods for public water systems.

C) Regional Strategies/Approaches/Tools:

EPA Region 8's drinking water staff will work to maintain Safe Drinking Water Act (SDWA) programs in states and direct implementation areas by developing simplified guidance so systems can access one document and learn how to comply with rules. Conducting workshops and training on implementation of the new requirements and vulnerability assessments are an important part of

the Region's strategy. For Wyoming, the State Department of Environmental Quality assists in the implementation of SDWA activities by issuing construction permits, certifying PWS operators, conducting source water assessments and providing technical assistance. EPA is developing a regional voluntary Tribal Operator Certification program in Indian Country to ensure adequate institutional knowledge to maintain safe drinking water. The Drinking Water State Revolving Fund program also works with the states to ensure proper financial accounting and spending rates to maintain strong loan numbers and acceptable gains in order to finance the infrastructure necessary to provide safe drinking water. Region 8 provides technical assistance in using set-asides, integrated planning and priority-setting of projects to gain maximum usage of the fund.

EPA Region 8 will continue to support the states in implementing new drinking water standards through the use of contractor assistance to maintain primacy responsibilities and reporting compliance. For its direct implementation programs, EPA will continue to promote population-based monitoring for contaminants to ease the financial burden on systems. To ensure that all stakeholders have a voice in implementation, EPA will continue to support the development of a Memorandum of Understanding in a multi-agency effort in Wyoming. The program will seek to secure funding for annual disinfection by-products testing for small systems and to conduct a state radon multi-media mitigation program. Region 8 will adopt an electronic system for the submittal and maintenance of all PWS records. The Region will expand a tribal utility support group to build on successful efforts in Montana. Region 8 will also continue to promote sustainable management of drinking water and wastewater infrastructure through the award of construction projects in Indian Country to increase the population with access to safe drinking water.

D) Primary Measures of Progress:

- Population served by community water systems providing drinking water meeting health-based standards promulgated in or after 1998
- Population served by non-community, non-transient drinking water systems with no violations during the year of any federally enforceable health-based standards that were in place by 1994
- Increase number of states updating primacy and adopting rules promulgated in FY99-02
- Increase number of tribal and direct implementation programs covering Indian Country drinking water systems
- Drinking Water SRF assistance agreements to community and non-community drinking water systems (cumulative)
- Drinking Water SRF projects that have initiated operations
- Reduce the number of tribal homes not served by safe water distribution systems or adequate sanitation.

Underground Injection Control (UIC)

A) Current Conditions:

Three of the six states have been authorized primary enforcement authority (primacy) for the full UIC program. These delegated programs consist of 50 Class I deep industrial waste injection wells; 8215 Class III solution mining wells; 3 Class IV radioactivity disposal well sites; and,

15,756 Class V injection wells, generally shallow wells that are used for stormwater control, septic systems and aquifer remediation. All six states have been authorized primacy for the Class II oil & gas enhanced recovery and brine disposal wells, generally to the states' Oil and Gas or related agencies. The Region has direct implementation (DI) responsibilities in Colorado, South Dakota, Montana and Indian Country. There are nearly 800 injection wells regulated directly under DI, including six Class I wells, 40 Class III wells, one 16,000 foot deep Class V well in Colorado and 760 Class II wells located in Indian Country. Region 8 states and DI programs have a compliance rate of 95 percent on all classes of wells. Among Wyoming Class I wells, there has been one violation in ten years. To date, Class V well owners in approximately 33 percent of the geographical area of each DI state have received requests for inventory information.

B) Regional Trends/Challenges:

Population growth has led to rapid commercial development outside of areas served by sewer systems, leading to an increase in shallow Class V wells. In addition, severe drought in Region 8 during recent years has created a need for aquifer recharge and water conservation projects in the next five years. Aquifer recharge activity will fall under the Class V shallow well program.

A recent increase in coal bed methane production has the potential to significantly increase the number of injection wells. Whether such wells are classified as Class II or as Class V, the increase has an impact on the authorized state programs because these two classes of wells are administered by different agencies within each state. Increased CBM production similarly will increase DI workload. Seven tribes currently have energy development activities that include injection wells on reservations. Additional Class II wells are expected to be permitted as several other tribes are considering new energy development activities. This also will increase the workload demands on DI.

C) Regional Strategies/Approaches/Tools:

The Assiniboine and Sioux Tribes of the Fort Peck Indian Reservation have sought primary enforcement authority of the UIC Class II (oil and gas-related) program. No final decision has yet been made, but there are approximately 21 Class II wells used for the disposal of produced water from oil production that would be delegated to the tribe should the delegation be approved. This would be the first tribal delegation of the UIC program nationally and only the second regulatory program ever delegated to a tribe.

The program has expanded the national goal for the DI program to include identifying all Class V wells by 2008 and entering each facility into the UIC program database to facilitate the sharing of information with the Source Water Protection programs. UIC program activities include: developing Memorandums of Understanding between agencies to coordinate and cooperate activities; developing regional UIC guidelines for well owners; sending reminder letters to well operators; increasing field presence and witnessing Mechanical Integrity Tests (MITs); compliance and inventory database improvement; meeting with and assisting operators on permit issues; increasing technical assistance and outreach activities including presentations to trade associations, professional groups and fellow regulatory officials; developing various external

communications; and, attending various regional and national meetings.

The UIC program will continue to support states' efforts in improving mechanical integrity methodologies and providing technical assistance on violation issues. The EPA will work with state agencies to streamline certain elements of the program. DI will focus efforts on the timely issuance of all new permits, and on permitting or closure of motor vehicle and large capacity cesspools. The UIC program will continue the strong field presence by annually inspecting all Class I, II and III wells, track compliance and enforce permits and regulations and will send mass mailings to inventory potential Class V facilities throughout the direct implementation states and reservations.

D) Primary Measures of Progress:

- By 2008, 100 percent of wells either (a) maintain mechanical integrity or (b) are addressed by EPA in a timely and appropriate manner.
- By 2008, 100 percent of all violations are addressed in a timely and appropriate manner
- By 2008, 100 percent of counties in the direct implementation states and tribes will have completed the inventory of the endangering shallow injection wells (motor vehicle waste disposal wells and industrial process water disposal wells).
- By 2008, 100 percent of known, large capacity cesspool and unpermitted motor vehicle waste disposal wells are closed.

Source Water

A) Current Conditions:

At the end of 2003, 42 percent of all public water systems in Region 8 had completed source water assessments. This covers 48 percent of the population served. Source Water assessments are being performed in all Region 8 states and on a pilot basis with tribes in North Dakota, South Dakota and Montana. For Indian tribes, source water assessments are voluntary. There are approximately 117 public water systems in Region 8 Indian Country. At the end of 2003, two source water assessments had been completed in Indian Country.

B) Regional Trends/Challenges:

States use a variety of approaches to complete source water assessments including in-house, through contractors, interagency agreements and student interns. Diminishing state budgets present an obstacle to completing the assessments by the original target dates. We currently project that state assessments will be completed by 2006.

Region 8 has worked with the Aberdeen Area Office of the Indian Health Service, the Aberdeen Area Tribal Chairmen's Health Board and representatives of tribes and other organizations to develop our strategy for Source Water Assessment and Protection in Indian Country. We are pilot testing this approach for some tribes in North and South Dakota. A successful outreach and education program has been completed by the Aberdeen Area Tribal Chairmen's Health Board. A Source Water Protection Coordinator is in place in the Aberdeen Office of the Indian Health Service. We are now focusing on source water assessments for tribes in Montana.

C) Regional Strategies/Approaches/Tools:

States have begun to address funding issues. All states have been able to access funds from the Drinking Water SRF. States that have had difficulty meeting their source water assessment deadline have negotiated new time lines with Region 8.

Region 8 will continue to encourage state partners through the Performance Partnership Agreement (PPA) process and regular coordination to implement their Source Water Protection and/or Wellhead Protection programs. All six states have Wellhead Protection programs already in place. Most have already expanded their Wellhead Protection programs to address surface water. Region 8 will seek ways to coordinate the Watershed Approach and other Clean Water Act programs with Source Water Protection where appropriate, and continue to offer technical assistance and grants for local Source Water Protection projects to address potential sources of pollution.

The Region anticipates using FY04 Tribal Source Water Protection funds for competitive grants to tribes interested in Source Water Assessments and Protection. We have used the IHS pilot work to develop a plan for conducting Indian Country assessments. The Region hired a SEE (Senior Environmental Employee) for the EPA Montana Operations Office to work with tribes in Montana on Source Water Assessment and Protection.

D) Primary Measures of Progress:

- Percent of source water areas for community water systems that have achieved minimized risk to public health
- Number of community water systems and percent of population served by those CWSs that have completed their source water assessments
- Number of community water systems and percent of population served by those CWSs that are implementing source water protection programs.

Ground Water Protection

A) Current Conditions:

Rapid population growth in the West over the past decade has resulted in increased pressure to develop ground water resources to satisfy water supply demands. At the same time, much of the West has experienced drought conditions, which has resulted in reduced ground water recharge and reduced base flow to streams. Data recently compiled and presented by the USGS (AGU Fall Meeting, 2003) indicate ground water levels are declining significantly in many areas (and many aquifers) across the nation. This is a combined effect of over-pumping of aquifers and reduced recharge due to drought. There is also concern about aquifer depletion due to coal bed methane pumping in the Tongue River and Powder River drainages. The effects of the ever increasing development of ground water are significant in terms potential water quality changes and public health issues related to decreasing ground water supplies.

B) Regional Trends/Challenges:

Much development has occurred in rural areas where homesteads use private wells for water supply and septic systems for wastewater treatment and disposal. Concerns over the lack of management of septic systems is a real issue in Region 8. Several local pilot projects are being implemented to protect ground water resources from the impacts of growth. Studies are also funded by the Non Point Source program for faulty septic systems and plugging of abandoned wells.

C) Regional Strategies/Approaches/Tools:

Region 8 will be focusing more on our ground water resources over the next five years. Along with our state ground water counterparts, EPA Region 8 has assembled a multi-agency Ground Water Strategy Workgroup which will focus on assessing the current status and developing future direction of ground water protection programs. Important objectives for the Workgroup include: 1) develop and implement ground water management strategies that recognize the long-term drought conditions present in Region 8; 2) help states and tribes shift to management of ground water resources on an aquifer basis, emphasizing sustainable yields; 3) integrate ground-water and surface-water management in a way that recognizes the hydrologic connection between the two resources (i.e., a single resource approach); and 4) effective integration of ground water development, protection and remediation programs including the integration of the management of ground water quantity and quality. The Ground Water Strategy Workgroup will include representatives from local governments, state governments, the US Geological Survey and EPA.

Region 8 may also conduct one or two pilot community projects to provide models for locally-led sustainable management in the next few years. To date most efforts have been initiated through requests to EPA by concerned public officials and/or citizens; we anticipate this trend to continue. Many tools have been developed in previous local ground water protection projects and will be further disseminated. Watershed scale assessment of hydrologic conditions, including quantification of ground water resources, ground water sensitivity/vulnerability mapping, ground water quality classification mapping, wellhead protection area delineation, potential contaminant source inventories, potential contaminant source susceptibility assessments, and septic systems density mapping are some possible tools for local protection efforts.

D) Primary Measures of Progress:

- Form state/tribal/federal/local work group to pursue development of regional ground water management strategy.
- Meet with Region 8 TMDL group to identify and work on a selected TMDL where integration of ground water contributions to loading are an issue.
- Plan and conduct first annual local/state/EPA ground water protection meeting.
- Evaluate State Performance Partnership Agreements (PPAs) and negotiate changes to help accomplish refocusing/strengthening goal.

By 2005
• Completion of draft regional ground-water management strategy

By 2006
• Implementation of local ordinances or measures protecting 2 local aquifer sy

Pesticides in Water
A) Current Conditions:
Each of our states and two tribes have concurred on a generic Ground Water Management Plan for pesticides. Several other tribes have generic plans in development or have expressed interests. While Montana has issued specific regulations to protect the vulnerable Fairfield Bench Aquifer from groundwater contamination from a specific pesticide called "Assert," ground water monitoring in our other states does not indicate the need for pesticide specific Pesticide Management Plans (PMPs). The generic Ground Water Management Plans should be updated to include surface water as well as ground water, however, states and tribes in Region 8 are reluctant to update generic plans in the absence of a final rules. Assessments of pesticides in ground water are supported by the Non Point Source program in several states.

B) Regional Trends/Challenges:
A study of water systems across the nation has identified some drinking water contamination issues with the herbicide Atrazine and other pesticides to varying extent. Methods to manage the problem are under evaluation. In Region 8, the ground water monitoring that is conducted does not indicate any contamination concerns from pesticides. Ground water monitoring should be expanded and increased to continue to track pesticide contamination. At this point in time, pesticides in surface water are not monitored with regular frequency. There have been concerns over the use of some pesticides and their potential affect on threatened and endangered species such as juvenile pallid sturgeon in the Yellowstone River drainage. Homeland security concerns related to protecting water from intentional pesticide misuse is a new challenge.

C) Regional Strategies/Approaches/Tools:
Region 8's approach is to work with states and tribes to develop plans to address water quality issues and to increase management of pesticides that have a high probability to leach and/or persist in ground water or surface water.

D) Primary Measures of Progress:
• Successful completion of additional tribal plans
• Funding for innovative state, tribal or local programs
• Development of pesticide specific PMPs, when needed.

Monitoring and Assessment
A) Current Conditions:
Using state data from 2000, about 85,283 miles of streams were assessed and 1,912,663 acres of lakes were assessed. Of these assessed water bodies, 3,955 stream miles and 302,803 lake and

reservoir acres are impaired for public water supply designated use.

B) Regional Trends/Challenges:

State 305(b) Report data represent only surface waters that are used for public water supplies, not ground water. State assessment methodologies may incorporate other sources of data and information in addition to or in place of ambient water quality of public water supplies.

C) Regional Strategies/Approaches/Tools:

As part of state monitoring and assessment program reviews, EPA Region 8 will be evaluating current approaches to monitoring and assessing water quality of public water supplies. EPA will work with each state to develop statewide monitoring strategies by 2004, and monitoring and assessment of public water supplies will be one component of each state's strategy. The Consolidated Assessment and Listing Methodology (CALM) contains the Agency's guidance on assessing attainment for public water supply-based water quality standards.

D) Primary Measure of Progress:

The percentage of assessed waters impaired for this use as reported in 305(b) or the Integrated Report is the measure of progress.

<u>Sub-objective 2.1.2: Fish Safe to Eat</u>

A) Current Conditions:

Fish advisories have been issued in a number of states and tribes in Region 8, including advisories for inorganic arsenic and mercury. All of Region 8 states and several tribes have participated in the National Lake Fish Tissue Study. The National Lake Study utilized a nation-wide probabilistic sampling plan; the tissue collected is being analyzed for over 200 chemicals. Several of our states have had quality assurance audits and have received additional information and training through their interaction with EPA staff. States and tribes without resources to participate received technical training and financial assistance from the Office of Water.

The states and tribes have also participated in the Western Environmental Monitoring and Assessment Program (EMAP). Fish have been collected and have begun to be analyzed for specific contaminants as a part of this program. The Office of Research and Development (ORD) in Corvallis is doing the analysis of the fish tissue samples.

All of the Region 8 states and several tribes participated in the 2002 national fish tissue meeting in Vermont. This is the first time all six of the Region 8 states participated. Tribal participation is also increasing.

B) Regional Trends/Challenges:

The level of interest and participation in fish analysis continues to grow. Requests for analytical assistance, field training and additional funds are increasing. The states are participating in national programs, and have used the additional opportunities offered to them. As sampling occurs and new information becomes available, additional problems become apparent and the

needs increase.

Several Region 8 states and tribes do not use EPA's recommended risk exposure values for methyl mercury (MeHg) to determine if an advisory should be issued. South Dakota and Colorado are currently using a threshold value of 1 ppm of mercury for fish tissue advisories. The current EPA Water Quality Standard (WQS) criteria for mercury is 0.3 ppm for fish tissue, but there is no implementation method at this time. The WQS and the threshold value used to determine a human health advisory are separate.

Region 8 is currently investigating the level of methyl mercury in fish on the Cheyenne River Sioux Reservation (CRST) and some samples have exceed EPA's threshold value. A preliminary study conducted on the Standing Rock Sioux Reservation showed a similar trend. A fish consumption advisory has been issued for the CRST and Region 8 tribes view this issue as a high priority that requires additional attention and resources.

Several states and tribes have not developed fish tissue advisory standard protocols, and some are reviewing their protocols to see if they match their state WQS. Recent changes to the mercury WQS criteria and a new implementation methodology may require states to make changes in their advisory programs to be congruent with WQS.

C) Regional Strategies/Approaches/Tools:

The monitoring team will continue to work with the states and tribes to develop the fish tissue program within the overall monitoring strategy.

Region 8 has been working on a project to provide tissue analysis services for states, tribes, local governments and watershed groups. A draft quality assurance plan is being prepared for fish tissue sampling and analysis for mercury. Discussions are just beginning on inorganic arsenic analysis.

EPA's laboratory will further develop analytical and field capacity. Current data for fish monitoring, new scientific findings on inorganic arsenic, state and tribal requests for field and lab assistance and an inventory of analytical services needed in the future are types of information that will be shared.

Region 8 will develop data management tools for tissue data and indicator information management needs.

As a part of the REMAP program, Region 8 is working with Montana to complete an Index of Biological Indicators (IBI) for fish.

Region 8 will develop an outreach program for the fish advisory program in conjunction with the states and tribes to reach at-risk populations.

EPA will continue to encourage Region 8 tribes to collect fish tissue samples for MeHg analysis. Currently tribes use CWA 106 funds to collect and monitor fish tissue, however, the demand of 106 funds is exceeding regional allocations. The Region will continue to investigate additional funding mechanisms to pursue this initiative.

D) Primary Measures of Progress:

- Percent of rivers and lakes monitored to determine the need for fish advisories
- Trends over time with the goal of having no fish advisories needed
- Increase the number of tribes monitoring for fish contamination and increase technical assistance given to tribes.

Sub-objective 2.1.3 Water Safe for Swimming

Water Quality Standards and Storm Water

A) Current Conditions:

Many Region 8 waters are designated for recreational use through the state and tribal water quality standards programs. However, because of insufficient data, we cannot accurately quantify to what extent water bodies across the Region are meeting their designated recreational use. We also do not know if all of the water bodies that could meet recreational use standards have been designated. When we suspect waters should be assigned this use, there is sometimes insufficient data to make a determination. Furthermore, we do not know to what extent people are being exposed to pathogens when they are in contact with recreational waters, particularly following storm events.

B) Regional Trends/Challenges:

There is insufficient data to make the above assignments and answer the questions, partly because the methodology for measuring pathogens, particularly *E. coli,* has been problematic, and partly because historically there have been insufficient resources for water quality monitoring. It makes sense that storm water pulses would increase pathogen levels to which people are exposed when bathing following those events, but there have been virtually no studies to determine what risks, if any, people are exposed to who are in contact with natural water bodies.

One barrier to overcome is the lack of wastewater analytical methods for *E. coli* in 40 CFR 136 (i.e., for use with NPDES (National Pollution Discharge Elimination System) permits), which results in implementation questions from states, tribes and dischargers. Another barrier is that Agency policy does not provide enough clarity to determine appropriate designation in some situations, which can result in debate among stakeholders.

C) Regional Strategies/Approaches/Tools:

The standards triennial review process is critical to standards revisions. We will continue to actively participate in discussions with state and tribal water quality agencies and their stakeholders as they continue the standards revision processes through a variety of mechanisms for each triennial review. Colorado and the Fort Peck Tribe have already adopted *E. coli*-based

water quality standards to protect recreation uses. Colorado has also adopted a third sub-category of recreation use, providing greater flexibility. Currently, Colorado is considering additional refinements to their recreation standards system, including a fourth sub-category of recreation use and options for completing the transition from fecal coliform to *E. coli* standards (the State now has both fecal coliform and *E. coli* standards). We expect that the other Region 8 states and tribes will also switch from fecal coliform to *E. coli* recreation standards. We will be sharing Colorado's program with the other states and tribes.

We will help transfer knowledge and experience from other states and tribes in order to facilitate the refinement of recreational use designations and associated standards. EPA has produced a new methodology that permits easy measurements of *E. coli* which we will encourage state and tribal agencies to incorporate in their regular assessments of water bodies. Meanwhile we will help states and tribes work through implementation questions resulting from regulatory gaps in measurement methodology. During our reviews of the state and tribal monitoring programs in 2004, we will discuss plans to evaluate impairment of recreational use waters due to pathogens and plans for updating their 303(d) lists of impaired waters.

D) Primary Measures of Progress:

- The number of states and tribes with standards programs that have appropriately designated recreational use classifications for all waters or have produced a use attainability analysis that demonstrates the use is not attainable.
- The number of states and tribes with standards programs that have adopted appropriate *E. coli* criteria and monitoring analytical methods.

Monitoring and Assessment

A) Current Conditions:

Based on 2002 state 305(b) report data summarized for Region 8, 26 percent of assessed stream and river miles and 34 percent of assessed lakes and reservoirs are impaired for primary contact recreation.

B) Regional Trends/Challenges:

Region 8 states are not eligible for national funds to support improved beach monitoring and notification of closures to the public. Monitoring of public beaches is conducted by multiple monitoring entities, often at the local level, and is not coordinated statewide. Often there are not sufficient numbers of samples to calculate geometric means to identify problems. Some entities default to using one-day data to evaluate potential problems and make closure decisions. There is much work needed to strengthen monitoring and assessment of public beaches.

C) Regional Strategies/Approaches/Tools:

As part of state monitoring and assessment program reviews, EPA Region 8 will be evaluating current approaches to monitoring and assessing water quality of public beaches and other waters designated for recreation. We will be working with each of our states to develop statewide monitoring strategies by 2004, and monitoring and assessment of public beaches and other waters

designated for recreation will be one component of each state's strategy. The Consolidated Assessment and Listing Methodology contains the Agency's guidance on assessing attainment for recreational-based water quality standards.

D) Primary Measures of Progress:

- The percentage of assessed waters impaired for this use as reported in 305(b) or the Integrated Report
- Increase the number of river and stream miles assessed in Indian Country.

Objective 2.2: Protect Water Quality

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

Water Quality Standards

A) Current Conditions:

The Clean Water Act gives responsibility directly to states and approved tribes to develop water quality standards. EPA reviews new and revised standards, determines if they meet Clean Water Act requirements and supports improvements to standards by developing new scientific information. Colorado actively reviews standards on a rotating basin approach, resulting in at least one major rule-making each year, while other states will initiate a statewide review every three years or longer.

Over the last ten years, one of the key priorities for Region 8 has been development of standards implementation procedures. Today, all states and one tribe have mixing zone procedures, and five (soon to be six) states and one tribe have antidegradation implementation procedures. Standards also are being developed in response to national requirements/guidance or new watershed conditions. For example, sodium adsorption ratios and electrical conductivity criteria were recently adopted by Montana in response to the rapid energy development in the Powder River and Tongue River watersheds. Agricultural producers in those areas are concerned about water discharges from coal bed methane development causing a deterioration of irrigation water quality. Colorado has adopted *E. coli* recreation standards in response to EPA's national criteria guidance, and other states are preparing to switch (from fecal coliforms) to *E. coli* as an indicator of pathogens in surface waters. Low-flow streams are presenting especially difficult standards issues for state and tribal decision makers. Regional staff are actively engaged in discussions with states, tribes, other regions and Headquarters to devise appropriate solutions. The regional program is increasing efforts to meet the requirements of Section 7 of the Endangered Species Act (ESA). Region 8 developed a biological evaluation for Colorado's revised mixing zone policy/procedure and then negotiated the biological opinion with the U.S. Fish and Wildlife Service (USFWS). This same basic approach will be used to complete consultation on additional water quality standards provisions. Tribal involvement in the program is increasing. Nine tribes are in the process of developing standards and applying for approval to administer the program.

B) Regional Trends/Challenges:

Now that all states and approved tribes have a strong basic standards program, they are addressing some of the more difficult tasks such as establishing appropriate levels of protection for low-flow streams, developing refined (more complex) use classification systems, completing required use-attainability analyses and identifying appropriate criteria for naturally occurring constituents (e.g., selenium, nutrients). Because EPA needs to be closely involved in these new and more difficult program activities, regional staff and managers will be spending additional time with the states and tribes, as well as other regions and Headquarters, to help resolve these questions. Site-specific standard setting is expected to increase, which will mean additional workload for regional staff and managers. Requests for technical assistance from tribes also are expected to increase. One of the largest challenges will be meeting EPA's consultation requirements with the USFWS as new standards are developed.

Due to discharges from the oil and gas sector over the past decade, once ephemeral streams now flow throughout the year. Currently, there are 435 discharges into these now perennial streams that require permits. This workload exceeds both the states' and EPA's capacity, and requires an administrative solution. There is a need to develop water quality standards for this sector and the types of streams affected that would both comply with the requirements of the Clean Water Act and allow a certain amount of flexibility.

C) Regional Strategies/Approaches/Tools:

Our goal is that all Region 8 waters have a "fishable and swimmable" standard, unless a sound use-attainability analysis shows that the water body cannot achieve that goal. We will continue to take a proactive approach so that state and tribal revisions meet Clean Water Act requirements, submissions that cannot be approved are avoided or minimized and disapprovals are resolved. Region 8 will meet Clean Water Act deadlines for decisions, will remain active in national policy discussions and do our part to implement national priorities for the standards program. We will provide appropriate and timely technical assistance to state and tribal work groups addressing standards policy or technical issues. We will work closely with the Regional monitoring program regarding use-attainability analyses, nutrient criteria development and other standards-setting needs. We will rely on Headquarters' efforts to complete ESA consultation on the national aquatic life criteria, while developing biological evaluations for other elements of water quality standards as needed.

Region 8 will participate on national work groups that are developing criteria, including: sedimentation criteria, nutrient criteria, bio criteria and biosolids criteria. We also will work on new emerging issues in the water quality area, such as: pharmaceuticals and personal care products (PPCPs), endocrine disrupting chemicals (EDCs), polyacrylamide in the environment, their effects on human health and ecosystem and other related issues. We will provide information and technical assistance to our stakeholders.

D) Primary Measures of Progress:

- All states and approved tribes conduct timely triennial reviews
- Adoption of *E. coli* criteria and monitoring analytical methods by all states and approved tribes
- An antidegradation implementation procedure in Utah
- Standards for all waters reflect swimmable and fishable goals, unless a use attainability shows that such standards are not feasible to achieve
- Increase technical assistance to tribes requesting EPA's assistance on tribally-approved water quality standards.
- Region 8 meets all ESA consultation requirements
- State and tribal revisions for low flow stream standards are consistent with CWA requirements. The Region will provide technical assistance and guidance, as needed. The Region's contribution to national policy development can be measured by documented conversations, issue papers, proposals for resolution and reflection of regional perspectives in policy documents.

TMDLs

A) Current Conditions:

Over the past several years, EPA has been sued throughout the country for not having required states to list waters or calculate TMDLs for impaired waters. The only active litigation in Region 8 is in Montana. About 900 water bodies in Montana are required under court order to have TMDLs calculated for them by 2007. There are about 1,500 TMDLs that are needed for these waters. All state water quality agencies in Region 8 are on schedule to meet their commitments to calculate TMDLs for water bodies that have been identified on the state's impaired water body list, but the Montana schedule is problematic. The states have developed their capability to obtain the necessary data, to calculate the TMDLs and write an implementation plan that will allow the water body to be restored to its full designated uses. Consequently, during 2003, increasing numbers of TMDLs are being developed and approved in the Region. The Non Point Source (NPS) program has estimated that half of the $20 million per year budget is going to implement TMDLs on impaired stream segments or watersheds. The Region has increased its capability to use Headquarters' tracking data base and populated it with regional data.

The methodology for determining whether a water body is impaired has been the source of considerable dialogue on several highly technical subjects. At the end of 2003, that debate has led to a series of activities to fine tune the current methodology. Several EPA work groups, chaired by Region 8, have convened to consolidate agreements on issues into a methodology guidance for 2006, which will be released in 2004. We are providing field, technical and financial assistance to the states to improve monitoring designs and networks, implement those designs and obtain environmental data, analyze the data and develop TMDL reports.

B) Regional Trends/Challenges:

As the states build their capacity to develop TMDLs and implementation plans, the rate of TMDL report completion will increase. The TMDL reports will be more detailed and there will be better public involvement in developing them. Region 8 will be encountering more difficult

consultations with the US Fish and Wildlife Service (USFWS) to meet Section 7 requirements of the Endangered Species Act (ESA) as more complex TMDLs in watersheds with endangered species are developed and appropriate water quality criteria for those species are in doubt.

Region 8's biggest challenge will be to meet the court-ordered Montana schedule for TMDL development. We will be challenged to design monitoring programs that meet a variety of Clean Water Act requirements, including listing and TMDL development by coordinating an array of federal, state and local activities. We need to increase our capability to use models to develop TMDLs. Our tracking capability and use of web data bases needs to improve as TMDL development increases and to provide better public access to associated data. Meeting these challenges will be essential to see that TMDL plans are actually implemented so that impaired waters are restored and not merely listed. In the Powder and Tongue River basins, where there is a significant amount of energy development, TMDLs are being developed and will completed by the Montana Department of Environmental Quality by December, 2004.

Several states and tribes have identified waters that are either impaired or threatened due, in part, to energy-related activities. Examples include McPhee Reservoir (CO) and Lostwood National Wildlife Refuge wetlands which are both experiencing high levels of mercury in fish tissue. Atmospheric deposition of mercury associated with coal-fired power plants is suspected as one of the sources of mercury. A Phase I TMDL addressing mercury loadings in McPhee Reservoir has been submitted by Colorado and approved by the Region whereas North Dakota has just begun investigations in Lostwood. Another example of TMDL work for energy-impacted waters are the TMDLs being done by Montana for the Power, Tongue and Rosebud waters in southeast Montana. The Region is working closely with the Montana and a workgroup which includes representation from Wyoming on these TMDLs which will address impacts from coal bed methane development.

C) Regional Strategies/Approaches/Tools:

Region 8 will continue to provide focused and extensive technical and financial assistance to Montana. We will continue to provide technical and financial assistance to the other states where possible. We will continue to provide training and technical transfer opportunities to states and tribes to increase their technical capacity. We will use the lessons of pilot water quality trading projects in the Region and nationally to develop opportunities where trading would be appropriate. We will be developing our ability to work across programs on a watershed basis to implement the TMDL plans. We will take advantage of the thrust in the Non Point Source program to devote Section 319 funds towards TMDLs development and implementation where impairment is caused by non point sources of pollution. We will continue to expand coordination between the TMDL and Superfund programs.

The Region will work with tribes when they request assistance related to TMDL work. We will also ensure that tribes are part of the stakeholder group developing TMDLs for shared water bodies.

D) Primary Measures of Progress:
- Numbers of TMDLs developed and approved
- Meeting court-ordered schedules for TMDL development.

Monitoring and Assessment
A) Current Conditions:

Region 8 waters are monitored and assessed by many state, tribal and federal agencies for a wide range of purposes, including requirements of the Clean Water Act. Additionally, academic institutions and volunteer organizations obtain data and assess the quality of water bodies. During the two years of monitoring by state and participating tribal water quality agencies to obtain data that is used for the required Report to Congress (Section 305(b) of the Clean Water Act), a limited number of waters are actually sampled. Furthermore, each state and tribal agency has a differently designed monitoring network and compares the data obtained under that design to water quality standards that may be different depending on the parameter from state-to-state or tribe. Ground water is typically monitored based on vulnerability to surface contamination or strong connection to surface water. Therefore, meaningful statements about water quality in general, whether in regard to ecosystem condition or risk to human health, must be provided on a state-by-state or tribe basis and qualified according to the limitations of each agency's program.

B) Regional Trends/Challenges:

Region 8 faces challenges in setting standards, accurately identifying water bodies that are impaired and making general statements about the condition of the nation's waters. Standards setting is becoming more site-specific for many pollutants; new pollutants are emerging; good data management tools are available but they require specific expertise to use; new monitoring designs and assessment tools are being developed but new skills are needed to use them; watershed planning is demanding increased levels of data to determine condition; and ecosystem assessment, not simply assessments of individual water bodies or stream segments, requires additional skills and coordinated agency actions. Significant amounts of data that would advance knowledge of aquatic ecosystems exist in myriad agencies, but obtaining cross-agency agreement on accessing and managing them in a coordinated fashion so that they can be used for multiple purposes has been nearly impossible for technical and policy reasons in several Region 8 states.

C) Regional Strategies/Approaches/Tools:

Because of the challenges described above, the Office of Water has made monitoring and assessment one of its four current priorities. One objective of the monitoring priority is to strengthen state monitoring programs and in response, EPA Region 8 is meeting with each state on implementation of the new *Elements of a State Water Monitoring and Assessment Program* document, released on March 14, 2003 (http://www.epa.gov/owow/repguid.html). This process includes review and evaluation of existing state programs based on the elements document and national expectations as well as development of statewide monitoring strategies by September 30, 2004. The strategies will identify priority areas of needed improvement for state monitoring programs to meet their goals as well as areas for EPA to focus its assistance and financial support. Based on discussions in 2003, data management and bioassessment are emerging as particularly

important areas needing attention by all states, tribes and EPA. EPA is providing bioassessment training in early 2004 to states and tribes, has provided financial assistance to improve data management in at least two states, and is continuing its assistance in building state capacity to use certain designs and analytical techniques via partnership with various state partners in the western project of the Environmental Monitoring and Assessment program. The Region will also provide monitoring design and field assistance for activities ranging from site-specific investigations to state-wide data gathering for watershed planning (the Total Maximum Daily Load program). The Region will develop a plan to help develop state and tribal capacity to manage data from many sources. As states and tribes develop their monitoring strategies, the Region will also work with them to identify sector issues affecting monitoring, such as energy and agriculture.

D) Primary Measures of Progress:

- Completion of six state monitoring strategies
- Identification of areas for improvement for each state
- Plans for addressing these improvement areas for each state
- Data in STORET from many data sources
- Increased state and tribal monitoring each year
- Assessment of waters against indicators developed scientifically
- The capability to make assessments about impairment of waters due to nutrient and pathogen concentrations or loadings
- Number of states and tribes doing sound bioassessments
- Number of states and tribes able to make impairment decisions based on nutrient and pathogen data.

Non Point Source

A) Current Conditions:

Non Point Source (NPS) planning is limited by a lack of monitoring or assessment data for 90 percent of waters in Region 8. At the national and regional level, NPS program accomplishments in improving water quality need better documentation. All Region 8 states are entering information into Grants Reporting and Tracking System (GRTS). Data is also being entered into GRTS for Tribal 319 grants. Monitoring data for 319 projects has been entered into STORET in all states. Available monitoring and assessment data are utilized in NPS program planning. GIS is inadequately used as a tool to plan and evaluate watersheds and projects. From 1988 through 2003, the CWA Section 319 NPS program has invested $125 million federal dollars in the Region in controlling NPS sources. Current regional funding is at $20 million per year.

B) Regional Trends/Challenges:

Our biggest challenge will be to monitor and evaluate projects for the long term (10 years). Success in evaluating the projects will depend on correct and up-to-date information in our national databases (STORET and GRTS). Funding will address NPS impairments from agricultural sources as established by the 303(d) list and incremental funds. With adequate NPS control, waters can be removed from the impaired list before establishing TMDLs. There is a need to use the information in the databases to strengthen the planning effort. The use of GIS has

the potential to illustrate graphically what is happening in the watersheds from a technical and financial perspective. Few staff are trained to use this tool.

Restoration of impaired surface waters is also proceeding through voluntary implementation of 303(d) listed waters with financial support of the NPS program. The need to restore watersheds has resulted in 6 lawsuits in 4 states.

Tribal interest and participation in the NPS program is expanding. There are 7 tribes in Region 8 (Crow, Assiniboine & Kootenai, Blackfeet, Chipewa-Cree. Southern Ute and Cheyenne River Sioux) with approved NPS management programs. In addition, 7 tribes (Standing Rock Sioux, Sissetpm-Wahpeton, Northern Cheyenne, Ute Mountain, Oglala Sioux, Flandreau Santee Sioux and the Lower Brule Sioux) are working to obtain their CWA 319 Treatment as a State (TAS).

We intend to continue to work with the other tribes in the Region to develop approved NPS management programs. As more tribes become eligible for Treatment as a State, sound resource management and optimal use of scarce resources will be an integral part of this program.

C) Regional Strategies/Approaches/Tools:

Region 8 will continue to work with states and tribes toward the development of NPS management programs that address an outcome-based framework with national program priorities (TMDL development and implementation, watershed-based plan development.) We will continue to track projects using the GRTS system. We will begin in FY04 to limit CWA 319 grants to states and tribes to five years. We believe this will improve tracking grants and evaluating projects. We will be focusing on improving monitoring and assessment of NPS projects. To this end, we will participate on the national work groups that are developing measures for remediation, prevention and reporting. We will also work closely with the monitoring team in Region 8 as they develop reference condition information and environmental indicators under EMAP and REMAP. We will vigorously promote the use of GIS as a tool for NPS program planning and evaluation at the state, tribal and EPA level.

Region 8 will also provide technical assistance to tribes seeking to increase their capacity to develop or enhance a NPS program. We have put resources into the national 106 contract to help tribes prepare NPS assessments, management plans and TAS approval packages. Currently the Region is involved with the CWA National Contract to assist five tribes develop their NPS programs.

Region 8 will integrate and coordinate the NPS program with the other water programs at EPA, and as Region 8 leads by example, we anticipate the states will integrate their NPS programs with other programs. We will work with the Natural Resources Conservation Service (NRCS), the Cooperative Extension Service and other partners to strengthen our ties to the agricultural community. We will continue to work with the Regional Agriculture Team and participate in regularly scheduled meetings with NRCS, state technical committees, local area workgroups and states and tribes to encourage targeting EQIP money to watersheds with NPS water quality

concerns or waters that are on the 303(d) list. We will encourage EPA staff to attend NRCS State Technical Committee meetings. EPA will work to include water quality criteria in evaluating EQIP applications. EPA will support the use of 319 funds to accelerate watershed assessment and planning for agricultural NPS. We will continue to encourage Region 8 states to use the SRF to invest in projects reducing non-point pollution. We will continue to support the National Agriculture Sector program (Agriculture Advisors in all 10 EPA regions and Headquarters) by facilitating communications to all 10 EPA regions on information from Inside EPA, Daily Environment Reporter, NRCS Today, NACD (National Association of Conservation Districts) Newsletter, NASDA (National Association of State Departments of Agriculture) Newsletter and others.

D) Primary Measures of Progress:

- Number of tribes with approved NPS Management programs following achievement of Treatment as a State
- Number of state and tribes reporting data into GRTS and STORET on their on-going progress in implementing their non-point source programs, including geo-location of projects and load reduction estimates; begin to evaluate the use of environmental measures of protection
- Number of NPS projects targeting 303(d) listed waters.

Supporting Watershed Protection and Restoration

A) Current Conditions:

Because water is a potentially limiting resource across much of the arid landscape in Region 8, many local communities and regions have come together to protect and/or restore water resources using a collaborative, locally-led approach on a watershed basis. The scale and number of these local watershed efforts vary considerably across the Region. Colorado has an estimated 25 active watershed groups, Montana has approximately 40-50, with the remaining Region 8 states having fewer. These watershed groups range from local government-driven, to landowner-focused groups (often with Conservation District sponsorship), to grassroots multi-stakeholder groups. The purpose of these groups is also diverse. Some groups remain primarily vehicles for exchanging information and educating watershed stakeholders, while others operate complex volunteer monitoring programs generating data of sufficient quality to be used in regulatory decision-making. Many groups ultimately develop some sort of watershed management plan that characterizes water quality threats/problems and identifies and prioritizes actions to address those problems. Before a plan can be developed, a considerable investment of time and resources is needed to allow a group to establish itself, gather and analyze information and achieve consensus around problems and solutions.

Although all of the existing watershed groups could potentially benefit from EPA support and involvement, we have provided direct technical and/or financial assistance to approximately 50 groups. EPA has also supported statewide watershed organizations in Colorado and Montana that provide information and assistance to individual groups across the two states.

B) Regional Trends/Challenges:

Watershed groups often have difficulty finding adequate resources and support to become established and reach the point where they can begin to implement meaningful actions to improve water quality. Region 8 has provided limited start-up funding and technical assistance to many groups primarily through the Regional Geographic Initiative, which is one of the few funding sources sufficiently flexible to support this activity. The demand for this support far exceeds the available funding under the highly competitive RGI (Regional Geographic Initiative) program, so many groups with excellent long-term chances for success are not able to be funded. Likewise, there is more demand for EPA staff technical assistance than we can meet with available resources.

Another challenge is to assist groups in measuring meaningful progress toward environmental results. Water quality problems are complex and multi-faceted, and several years of data gathering and analysis and development of organizational capability are needed before on-the-ground protection and restoration actions can begin to be implemented. Often, those measures must be in place for a period of time before water quality improvements can be documented. So it is important to develop meaningful interim measures of progress that experience shows will likely lead to measurable environmental results in the longer term.

C) Regional Strategies/Approaches/Tools:

Region 8 will continue to provide direct technical and financial support to watershed groups, who are often key players in successful implementation of program actions such as TMDLs. We will continue to focus our direct technical assistance toward those groups that are addressing higher priority impaired waters, but also commit to assisting some groups that are implementing protective actions in threatened, though not yet impaired, watersheds. Although support will be provided across the Region, the watersheds of the San Juan Mountains in southern Colorado are a priority geographic focus for the Ecosystems Protection program. One area of increased emphasis will be working with local groups to integrate watershed efforts with revitalization tools and programs where appropriate. The new operational model of integrating the delivery of Clean Water Act, Safe Drinking Water Act and revitalization programs at the local level are being piloted in several watersheds in Region 8.

The Region's Consolidated Funding Process will continue to be used to identify the strongest candidates for funding support and to leverage funds across several water and multi-media funding sources to provide the maximum possible assistance for watershed efforts.

The Region will also continue to implement efforts to build watershed group capacity across the Region. Such efforts include leadership coaching, assistance in moving toward long-term financial sustainability, outreach regarding technical tools and resources and limited support for watershed group training.

Additional focus will be given to support local protection of ground water resources on a watershed basis (further described in Section 2.1.1) and providing assistance with ecosystem

assessment at the watershed scale (further described in Sections 4.2.1 and 4.2.2).

D) Primary Measures of Progress:

- Number of local watershed groups receiving direct technical assistance
- Number of local watershed groups receiving direct financial assistance

In addition, each project for which EPA provides technical assistance will be evaluated using the following categories of measures:

- Watersheds, streams or resources restored or protected
  (Example measure: acres/stream miles with Best Management Practices implemented)
- Clean Water Act or Safe Drinking Water Act core program actions supported or completed
  (Example measure: stream miles with TMDL measures implemented)
- Enhanced stewardship capacity of agencies or local organizations
  (Example measure: watershed or other management plans developed)

National Pollutant Discharge Elimination System (NPDES)

A) Current Conditions:

All six states are authorized to implement and enforce the National Pollutant Discharge Elimination System permitting program. Five of six Region 8 states are meeting the national goal of no greater than 10 percent major permit backlog. By December 31, 2004 all states and EPA are expected to meet a national goal of no greater than 10 percent major and minor permit backlog. Several states may have a difficult time meeting the minor permit backlog due to the number of permit renewals and new regulations that need to be adopted and implemented. The minor permit backlog rates in Colorado are 49 percent and Montana is 53 percent, but due to the high number of minor permits issued in Wyoming (1,429) the overall regional numbers are in line with the national target**.**

The Region has substantial direct implementation responsibilities under the NPDES program. Direct implementation responsibilities include NPDES permitting in Indian Country and federal facilities in Colorado. The program implements the industrial pretreatment and biosolids programs in CO, MT, ND and WY. The program also works with states to develop strategies on implementation of the new Concentrated Animal Feeding Operations (CAFO) regulations and with small or medium feeding operations to fix problems that might otherwise qualify them as CAFOs.

B) Regional Trends/Challenges:

The NPDES program continues to expand due to new regulations (e.g. stormwater and CAFOs) and coal bed methane development. Issues on the horizon that could potentially impact the NPDES program are inter-basin water transfers, pesticide applications to aquatic environments, increased energy production and chronic wasting disease.

Remaining water quality problems are significantly different from those faced in the early years of the NPDES program. Remaining sources tend to be much smaller, more numerous and more widely distributed (e.g., stormwater sources and CAFOs). New challenges the NPDES program

will face include implementation of nutrient and pathogen water quality standards and implementation of Total Maximum Daily Loads in permits. The issuance of general permits has helped streamline the permitting process in Indian Country. If resources remain at current levels, other less costly methods must be found to balance the expanded work in the NPDES program.

C) Regional Strategies/Approaches/Tools:

The NPDES program will continue to support states' and any new tribes efforts in the issuance of new or revised permits and continue to facilitate the states use of contractor assistance to maintain acceptable permit issuance rates to reduce permit issuance backlogs. The NPDES program will support states in developing CAFO implementation strategies and nutrient management plans through technical assistance and incentives. The NPDES program will continue to provide coverage and assistance to manage the Water Quality Cooperative Agreement program that funds projects that address NPDES priorities. The program will continue to promote watershed-based strategies to maximize resources. We will identify and promote opportunities for watershed-based solutions to NPDES issues, particularly where such an approach maximizes the efficient use of limited resources. This support includes the development of electronic tools to maximize use of resources and to promote watershed-based solutions to NPDES issues. A major focus of the program is to ensure state programs are strong using the tools provided by the Office of Wastewater Management and to identify opportunities to reduce permit challenges and minimize the risk of withdrawal petitions.

D) Primary Measures of Progress:

- Percent of permits issued to facilities discharging pathogens that include pathogen controls consistent with water quality standards that have been revised to reflect EPA published criteria
- Number of states with established processes for watershed permitting, number of watershed permits issued and number of tribal and/or direct implementation processes established for Indian Country.
- Percent of permits issued that incorporate approved TMDLs
- Number of states where NPDES program health has been assessed.

National Pollutant Discharge Elimination System (NPDES) - Biosolids

A) Current Conditions:

Two of six states are authorized to implement and enforce the biosolids provisions of the National Pollutant Discharge Elimination System permitting program. EPA has direct implementation responsibilities for the remaining four states (CO, MT, ND, WY) and Indian Country. The Region issues general permits to cover these areas. Region 8 plays a significant role in the biosolids regulatory dioxin workgroup, the pathogen equivalency committee, the intra-office committee responding to the 2002 National Academy of Science report, and is designated as a Biosolids Center for Excellence.

B) Regional Trends/Challenges:

Given the continuing expansion in other areas of the NPDES program (as explained under Goal 2), it is a challenge to maintain this level of national presence. Our direct implementation responsibilities and capacity building with states and tribes (so they can be authorized) must be the biosolids' program highest priority. Public participation and involvement in the Biosolids program has increased across the country and will likely continue.

C) Regional Strategies/Approaches/Tools:

The NPDES program will continue to make implementation of the Biosolids program a more simplified and useful program and to provide coverage under the Biosolids general permits for a more streamlined process. The program will continue to assess and ensure the good health of the program through the review of annual reports entered in the Biosolids Data Management System. The program will continue to promote Water Quality Cooperative Ageement grants for Biosolids innovative projects. The NPDES program will continue to promote authorization of the Biosolids program to state programs and assist interested states with the authorization application process.

D) Primary Measures of Progress:

- Number of biosolid facilities covered by permits
- Percent of annual reports reviewed through the Biosolids Data Management System
- Percent of beneficial use of biosolids.

National Pollutant Discharge Elimination System (NPDES) - Storm Water

A) Current Conditions:

Region 8 issues storm water permits in Indian Country and for federal facilities. We have issued a general permit for storm water discharges from "regulated" small municipal separate storm sewer systems (MS4s) operated by federal facilities in Colorado. All regulated small MS4s required to obtain permit coverage under the general permit have done so. Compliance assistance visits have been performed at 50 percent of these regulated MS4s.

The construction general permit (CGP) has been revised and re-issued to cover small construction projects which disturb greater than or equal to one acre of land. The application process for this permit has been revised to allow electronic application submission, thus, improving the speed and accuracy of the permitting process.

B) Regional Trends/Challenges:

Region 8 will work closely with all agencies engaged in storm water permitting and enforcement to ensure coordination and communication. Region 8 will provide compliance assistance where necessary to regulated small MS4s and industrial facilities requiring coverage under an EPA permit. We will work closely with tribal environmental offices to provide guidance on targeting and permitting industrial activities to prevent pollutant discharges to waters of the US. The Region will partner with state and local agencies to provide unified and coordinated guidance related to storm water permitting. Finally, we will maintain regular communication with permitting authorities when addressing national or regional enforcement and compliance

assistance priorities.

C) Regional Strategies/Approaches/Tools:

Region 8 will ensure compliance with storm water regulations where we are the permitting authority for construction and industrial activities. We will provide data to interested parties regarding permitted facilities and/or activities. We will also determine industries where compliance assistance is needed.

We will focus on providing guidance through compliance assistance seminars and outreach. Region 8 will visit permitted small MS4s where we are the permitting authority. We will write and/or re-issue storm water permits on a timely basis. We will also provide all data to interested parties (i.e, tribal representatives) regarding permitted facilities.

D) Primary Measures of Progress:

- Number of permittees that are covered by NPDES permits or other enforceable mechanisms consistent with the 1994 Combined Sewer Overflow policy
- Number of minor storm water point sources that are covered by current general NPDES permits.

Clean Water Act State Revolving Fund (SRF)

A) Current Conditions:

The Clean Water State Revolving Fund (CWSRF) is used by all six states to restore, maintain and improve the states' surface and groundwater quality. Since 1987, states within Region 8 have been awarded $710 million in CWSRF grants. With the addition of state match and leveraging, the program assistance totals $1.5 billion. The CWSRF has a completion rate of 437 projects completed of 600 initiated or 72 percent. Each state finances their priority needs through their Intended Use Plan. Currently, those priorities consist of wastewater capital infrastructure to meet new and more stringent discharge limits; underground storage tank remedial projects, source water and groundwater protection strategies, watershed management activities and other non point sources.

The regional office awards and oversees tribal wastewater construction projects through a national Tribal Revolving Fund. There are 26 wastewater construction projects totaling $6.1 million in Indian Country. EPA assists the tribes in achieving sustained operations and funding to meet current and future demands in the face of aging infrastructure.

B) Regional Trends/Challenges:

EPA has released its "Gap Analysis" documenting funding shortfalls for drinking water and wastewater capital assets. The analysis revealed that four of six CWSRF programs in Region 8 are experiencing budget shortfalls. However, the other two programs are not able to use all CWSRF funds for projects. These two programs will be challenged to identify areas where they can cover infrastructure costs for local communities. An additional challenge for states will be the administration of the fund due to state budget reductions to fund personnel to review, award and

manage the projects.

C) Regional Strategies/Approaches/Tools:

The SRF program will continue to assist the state programs in maintaining fiscal health. We will support the states in transferring funds from the CWA SRF to further support the Drinking Water SRF. We will begin to address and strategically plan the infrastructure needs, as identified in the Gap Analysis Project, to assure and maintain water quality. Region 8 staff will work with two states to expand eligibilities, review project priority systems and assess innovative financing mechanisms to increase projects and ensure future capitalization grant award. EPA will continue to support the states in identifying innovative ways to address their concerns, including combining of Non Point Source grants with Clean Water SRF funds to further innovative water quality projects.

D) Primary Measures of Progress:

- Percent of projects to SRF funds available
- Percent of project disbursements to SRF loans
- Return on federal investment
- Sustainability of SRF programs
- Clean Water SRF set-aside spending rate
- Document the number of additional SRF projects funded due to leveraging of outside funds.

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.

Objective 3.1 Preserve Land

Sub-objective 3.1.1 Reduce Waste Generation and Increase Recycling

A) Current Conditions:

Region 8 supports projects that demonstrate the reduction of municipal solid waste and enhance the infrastructure for municipal solid waste recycling. Current projects demonstrate the use of crumb rubber in road paving applications, food waste composting, material exchange to extend the life of used electronic equipment, construction debris recycling, zero waste for hospitals and special events and business assistance to recycling entrepreneurs. "Safe waste management" has been primarily focused within Indian Country, as Region 8 programs have concentrated on addressing basic waste and water needs. One example of an effort to address the current conditions is the work the Region is doing on the Tribal Integrated Waste Management Systems (TIWMS), identified in the Region's Revitalization Workplan for 2004.

B) Regional Trends/Challenges:

State environmental departments in Region 8 generally do not have recycling coordinators and most do not provide money to support the development of waste reduction and recycling programs. As funding from EPA declines, it becomes more difficult to develop, support or even conduct projects waste reduction, reuse and recycling projects. Landfill tipping fees are relatively low compared to other areas of the country and therefore generally do not provide a sufficient incentive to divert waste from disposal in landfills. Many areas in the Region are rural and these smaller communities often don't generate enough material to make a recycling program cost-effective. Similarly, the costs of transporting recyclable materials to markets both within and outside the Region are often prohibitive. Many of these same constraints apply to Indian Country within Region 8, due to large land areas that are far from the recycling markets.

C) Regional Strategies/Approaches/Tools:

Local government agencies and non-profit organizations are proactive in solid waste reduction and recycling. The Region continues to leverage partnerships with these groups to demonstrate the value of waste reduction and recycling and the value of local and regional partnerships aimed at overcoming the economic challenges of recycling and developing markets for recycled materials in sparsely populated areas. Composting is emerging as a feasible waste management approach for many rural communities and we anticipate increasing outreach in this area. Region 8 uses grants for demonstration projects, program development and coordination, technical assistance and partnerships. Region 8 also promotes achievement of this Sub-objective through core programs in waste management and pollution prevention and through active participation in the Resource Conservation Challenge (RCC). The Region is actively involved in six of the major

focus areas (or clusters) in the national RCC effort, including: targeted chemical reduction, construction and demolition waste, electronics, tires, hospitals and green buildings. In addition, we are forming a RCC Steering Committee that will document, recognize and promote efforts to fulfill national RCC goals within a well-defined communications structure. Its aim is to plan and implement activities across Region 8 programs and in collaboration with stakeholders and partners. Most funding for solid waste management on Indian lands has been directed toward cleanup of open dumps and creating waste management systems.

D) Primary Measures of Progress:

Both tribes and states are working to increase the number of projects funded, the amount of funding we are able to leverage from other partners, the amount of waste diverted from landfills, cost savings, number of jobs created and the ability of programs to become self-sustaining. Where data are available, the ultimate expression of the success of these activities can be measured in terms of the pounds of pollutants reduced, gallons of water saved, BTUs of energy conserved and dollars saved by reducing waste generation and increasing recycling.

<u>Sub-objective 3.1.2: Manage Hazardous Waste and Petroleum Products Properly</u>

RCRA Safe Waste Management

A) Current Conditions:

In Region 8, approved controls (permits or other enforceable instruments) for the management of hazardous waste have been put in place for all units at 80 percent of the 96 Treatment, Storage and Disposal Facilities (TSDFs) in the universe of operating and post-closure TSDFs. This current status achieves the 2005 program goal (80 percent) two years ahead of time, but continued progress is needed to meet a 2008 goal that will likely be about 95-98 percent. Tribal needs within Region 8 for solid and hazardous waste management far exceed current funding levels.

B) Regional Trends/Challenges:

In Region 8, the states are the primary implementers of the RCRA program and they issue most of the permits required for operating and post-closure TSDFs. Progress toward the national goal has been steady, with the notable exception of operating Subpart X Open Burning/Open Detonation units. Progress at these units has been slow due partly to the requirement for air pathway risk analysis for the units. Progress has also been slow with post-closure facilities, where ground-water monitoring issues have delayed the issuance of some permits. Because tribal needs exceed resources, the challenge is to close existing open dumps while at the same time preventing new ones.

C) Regional Strategies/Approaches/Tools:

Region 8 and the states use several tools and methods to plan, promote and track progress towards program goals. The chief tools are a multi-year strategic work plan that addresses the facilities and units in the Permits Baseline Universe; custom-designed database reports; and the annual Performance Partnership Agreements (PPA) with the states. Each year, starting about

mid-year, we review the multi-year work plan, begin planning the next year's activities and review out-year projections. The Region 8 Solid & Hazardous Waste program is working with tribes to establish Integrated Solid Waste Management Plans with sustainable programs to fund the necessary infrastructure.

D) Primary Measures of Progress:

Progress of key hazardous waste program activities is measured with the RCRAInfo database. The states maintain these data directly. EPA has designed a number of reports that clearly track and demonstrate the status of hazardous waste permits and progress toward the national goal. At present, no federal databases track solid waste management in the Region's states or tribes. The Region 8 Solid & Hazardous Waste program is working with the Brownfields program to create a database to track solid and hazardous wastes within Indian Country.

Underground Storage Tanks (UST)/Leaking Underground Storage Tanks (LUST)
A) Current Conditions:

State Programs: Four states have received program approval from EPA to implement and enforce the UST program using their state authorities, which have been deemed to be as stringent as Federal authorities. Two states (Colorado and Wyoming) implement the program under MOAs with EPA. The state UST program in the Region consists of: 23,427 active tanks and 66,051 closed tanks; 17,936 confirmed releases, 15,655 cleanups initiated, 12,928 cleanups completed; a 5,008 cleanup backlog; 171 emergency responses. Currently, 90 percent of UST facilities are in significant operational compliance with release prevention and 80 percent are in significant operational compliance with leak detection regulations. The Region 8 UST program also administers funds for the Leaking Underground Storage Tank (LUST) program for states and tribes. States implement the LUST program under cooperative agreements with EPA. The states are proactive in expediting cleanups and re-utilizing of UST land areas. The tools used by some states in the region to expedite cleanups include: 1) development of standardized reporting requirements for responsible parties, which has expedited state staff review; 2) inspecting all closures which has expedited the issuance of "No Further Action" (NFA) determinations; and 3) expediting closure strategies at long term monitoring sites by establishing plume stability through statistics and modeling. Utah, South Dakota, Colorado and Montana have had success by utilizing Risk Based Corrective Action (RBCA) to expedite cleanups of low risk sites which has allowed them to focus greater efforts on high risk more complicated sites.

Tribal: Totals for Indian Country include: 577 active tanks; 1991 closed tanks; 461 confirmed releases; 407 cleanups initiated; 226 cleanups completed; 235 cleanup backlog; and 5 emergency responses. Currently, 70 percent of facilities are in significant operational compliance with release prevention and 79 percent are in significant operational compliance with leak detection regulations. The challenge for the Regional DI program in Indian Country is to keep the owners/operators informed on maintaining their underground storage tank system. The inspection field season is an opportunity to provide assistance on requirements under the federal UST regulations. The facilities are on an inspection schedule of every three years. At this time, the

Standing Rock Tribe is implementing a Direct Implementation Tribal Cooperative Agreement (DITCA). This authority is intended to provide tribes and EPA with an additional approach to develop staff capacity to manage environmental programs. This approach supplements the original "treatment in a manner similar to states" process of involving tribes and providing flexibility. The Oglala Sioux Tribe and the Three Affiliated Tribes are also considering DITCAs at this time.

Another innovative program is the UST Fields program, which is a grant for the cleanup of contaminated sites. The Crow Tribe in Montana is participating in this program to remediate land to be reused. EPA Region 8, in concert with the Revitalization Initiative, will work in Indian Country under our direct implementation responsibilities. We will apply Ready-for-Reuse (RfR) determinations at property clean ups, as deemed appropriate.

B) Regional Trends/Challenges:

Cleanup Challenges: Although most states indicate that they will be able to achieve the cleanup goals presented by the Office of Underground Storage Tanks (OUST), barriers to maintaining or increasing cleanup rates include: 1) long term monitoring requirements/policies, which preclude no further action status under OUST's current definitions; 2) flat or reduced state resources; and 3) more complex cleanups, requiring longer cleanup periods.

Compliance Challenges: Small businesses often do not have the resources or do not choose to focus their resources on environmental issues. Additionally, many small businesses have problems maintaining a cash flow and as a result, they are closing their businesses and leaving their tanks in the ground. Even when a business closes, it is required to maintain the testing requirements for tanks. Many facility owners often experience high employee turnover, which can result in non-compliance due to lack of knowledge, expertise and training. Concern exists regarding the indeterminate nature of the third-party certification process for approving other leak detection methods – in particular, the Statistical Inventory Reconciliation (SIR) method.

C) Regional Strategies/Approaches/Tools:

EPA Region 8 and our states will continue to improve the compliance rate in the UST program. Specifically, the Region will increase UST facilities in significant operations compliance with release detection and release prevention requirements. Montana uses contractors for third-party inspections and Utah provides funding to local health departments to do its inspections. Colorado has provided Cathodic Protection tester training for their inspectors, as well as release investigation training. North Dakota has refocused their field efforts from closure inspections to leak detection inspections and plans to re-inspect all facilities every three years – a major increase over past compliance efforts.

The Region's LUST program will reduce the number and degree of confirmed releases through better tank management, improved equipment and early detection. Additionally, the Region will reduce the cleanup backlog (as of FY02) by 50 percent in 5 years (by FY07).

Region 8 will continue to assist the Wyoming Department of Environmental Quality in achieving cleanup goals and will use the Minimum Site Assessment (MSA) process to identify sites that can be closed by reviewing documentation. The MSA program will end in FY2004 and Wyoming is not certain whether it will be extended.

The Region will also continue to assist the tribes to improve their UST programs, encourage use of DITCA process, as well as application for UST Fields grants.

D) Primary Measures of Progress:

UST Measures
- Total number of petroleum UST systems regulated under Subtitle I (active & closed)
- Number of permanently closed petroleum UST systems regulated under Subtitle I
- Total number of hazardous substance UST systems (active & closed)
- Number of UST systems in operational compliance with release detection requirements
- Number of UST systems in operational compliance with release prevention requirements
- Number of UST systems in operational compliance with both release detection and release prevention requirements.

LUST Measures
- Number of confirmed releases
- Number of cleanups initiated (responsible party lead and/or state lead with state money)
- Number of cleanups initiated (state lead with Trust Fund (LUST) money)
- Number of cleanups completed (responsible party lead and/or state lead with state money)
- Number of cleanups completed (state lead with TF money)
- Number of emergency responses.

Objective 3.2: Restore Land

Sub-objective 3.2.1 Prepare and Respond to Accidental and Intentional Releases
A) Current Conditions:

EPA Region 8 plays a major role in efforts to respond to releases of hazardous substances and oil and to strengthen the Agency's ability to respond to future events through emergency preparedness. The Region hired all five of the counter-terrorism FTEs (full-time equivalents) allocated by EPA Headquarters and now has 17 experienced On-Scene Coordinators (OSCs) who are fully trained to respond to a wide range of emergencies including those involving weapons of mass destruction. Another three OSCs are at the junior level and are being rapidly trained. EPA uses authorities under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA, or Superfund), the Oil Pollution Act of 1990 and the Stafford Act to protect against and respond to spills and releases of hazardous materials. On average, the Region receives 900 to 1,100 Incident Notification calls through the National Response Center annually and responds by sending an OSC to a spill approximately 25 to 30 times per year. When an incident

occurs, the OSC coordinates with those in national, regional and area response systems to ensure that all necessary resources are available and that containment, cleanup and disposal activities proceed quickly, efficiently and effectively.

EPA uses an approach that integrates prevention, preparedness and response activities to minimize risks associated with accidental or intentional releases. Region 8 is actively establishing partnerships with local, state and other federal response organizations to ensure effective coordination of activities during a multi-jurisdictional incident. The Region has two Senior Environmental Employee enrollees who regularly attend Local Emergency Planning Committee (LEPC) and State Emergency Response Commission (SERC) meetings throughout the six Region 8 states. The Region actively participates in the Colorado and Utah Counter-Terrorism Advisory Councils (interagency boards designed to share information regarding potential threats, resources available for response and response authorities) and was instrumental in establishing a similar organization in Wyoming. As requested by states to develop a coordinated response plan for high-priority geographic areas, seven sub-Area Contingency Plans (ACPs) have been completed. Work continues, including annual updates for the completed ACPs and developing two additional ACPs.

An important component of the Region's current work is preventing oil spills from reaching our nation's waters. Under the Clean Water Act, as amended by the Oil Pollution Act, the Agency requires certain facilities to develop and implement spill prevention, control and countermeasure (SPCC) plans. SPCC plans ensure that facilities put in place containment and other countermeasures that would prevent oil spills from reaching navigable waters. Facilities that are unable to provide secondary containment, such as berms around an oil storage tank, must provide a spill contingency plan as part of their SPCC plan that details cleanup measures to be taken if a spill occurs. The Region performs approximately 50 SPCC inspections annually.

Because of the rural character of the Region, an additional concern is the potential for bio- or agro-terrorism activities intended to disrupt the nation's food supply. Region 8 will work with government agencies, agricultural businesses and producer groups, as appropriate, to promote implementation of adequate security measures at agricultural chemical dealers, food processors and crop storage facilities and to encourage reporting of unusual livestock disease outbreaks or crop conditions to proper authorities.

On a national level, the removal program has developed the Core Emergency Response (ER) program to establish criteria for each regional ER program. The goal of Core ER is to enhance EPA's emergency response program to respond quickly and effectively to chemical, biological and radiological incidents or releases and improve coordination mechanisms to enable response to large-scale national emergencies, including homeland security incidents. The primary aspects of Core ER include: Regional Response Teams and coordination among regions; health and safety issues, including identification, clothing, training and exercise; establishment of delegation and warrant authorities; and response readiness, including equipment, transportation and outreach. In 2002, Region 8 scored 824 points out of a possible 1,000 on its annual Core ER Evaluation. Our

goal is to score in excess of 900 points.

B) Regional Trends/Challenges:

The Region is placing increased emphasis on advanced level training for OSCs to improve the ability to respond to large, multi-agency incidents possibly involving weapons of mass destruction. Training in the areas of incident command, technical aspects of response to chemical, biological or radiological agents and health and safety will be emphasized. While Region 8 has consistently met response-related program targets, including enforcement targets for responsible party conduct of work, it may be difficult to continue to do so given the increased training demand on the OSCs.

Another trend is increased participation in national incidents and national workgroups. Region 8 OSCs participated in the World Trade Center and Capitol Hill anthrax responses, were heavily involved in the Texas Space Shuttle Response, as well as the Top Officials 2 (TOPOFF2) exercise in Seattle and Chicago. Other national efforts include leading a workgroup to revamp the medical monitoring program for OSCs and ensuring national consistency and improved CT response capability for the next generation of Superfund Technical Assessment and Response Team (START) contracts. In the area of Core ER we are actively working on improving our back-up system with Regions 9 and 10. A critical piece is ensuring that the primary emergency response contracting vehicles, the START and Emergency and Rapid Response Services (ERRS) contracts, are "portable" and can be used across regions. Additionally, cross-regional training and exercises will be emphasized. The Region built a state-of-the-art Regional Response Center (RRC) which is fully operational. The Region will continue to acquire, to the extent that funding is available, equipment from the National CT/Response Equipment Priority list including a mobile command post and mobile RRC. Other goals are to more fully equip EPA's Golden, Colorado, Laboratory to act as alternate RRC in the event that response equipment currently located in downtown Denver is not available.

A continuing challenge for the program is the diminishing Superfund pipeline budget. Pipeline monies support a wide range of program activities for preparedness and response. Site related needs on a yearly basis are uncertain and a contingency needs to be held back to support sites that present an imminent health risk. At the same time, funding for OSC training and exercises, equipment purchases, maintenance of ER equipment and development of improved Standard Operating Procedures (SOPs) for CT must in part be funded from pipeline (in the absence of sufficient supplemental CT-specific funding). Similar funding issues in the oil program affect the ability to develop new area contingency plans.

Another challenge is EPA's role in national responses with the establishment of the Department of homeland security and associated demands and requirements that may come out of the new department. The Region will continue to be engaged at the national level to clarify this role while maintaining and enhancing its current response capabilities.

C) Regional Strategies/Approaches/Tools:

EPA Region 8 will continue to use its response authorities under the National Contingency Plan to respond to releases of hazardous substances and oil. In addition, the Region will review response data provided in the "after-action" reports following a release or exercise and examine "lessons learned" reports to identify which activities work and which need to be improved. As resources allow, the Region will support state spill response efforts at the local level and will help expedite Oil Pollution Act reimbursement requests.

The Region will work to improve internal and external coordination and communication mechanisms. For example, as part of the Regional Incident Coordination Team (RICT), the Region will continue to improve its policies, plans, procedures and decision-making processes for coordinating response to large-scale emergencies. We are also formalizing a Regional Support Corp to provide Region-wide assistance to the OSCs in the event that the national response system is overwhelmed. The Region will continue to participate in multi-agency meetings and task forces to improve external communication and coordination issues including ongoing coordination with the Office of Homeland Security. As a major outreach effort to improve the ability to protect people in the event of a terrorist act, the Region is working collaboratively with Denver and Salt Lake City (the Region's two major population centers) on developing timely notification systems to downtown buildings so that they may immediately turn off air intake systems.

D) Primary Measures of Progress:

The Region uses Appendix D of the Superfund/Oil program Implementation Manual (SPIM) to measure progress toward the Agency's cleanup objectives. The Region will also measure improvements through the annual Core ER evaluation process.

<u>Sub-objective 3.2.2: Cleanup and Reuse of Contaminated Land</u>

Superfund Remedial

A) Current Conditions:

Region 8 has 58 non-federal facility sites either proposed or final on the National Priorities List (NPL). Of those, 20 are classified as construction complete and are in the post-construction, long-term monitoring phase. The Government Performance and Results Act (GPRA) environmental indicator at the 58 non-Federal Facility sites for "Human Exposure Under Control" is currently 64 percent are under control, 24 percent are not under control and 12 percent do not have sufficient data to make a determination. For "Groundwater Migration Under Control," 52 percent are under control, 24 percent are not under control and 24 percent do not have sufficient data to make a determination. Each year the Region adds approximately one to three sites to the National Priorities List. The Region also typically completes construction and deletes one to three sites from the NPL each year.

B) Regional Trends/Challenges:

Region 8 is differentiated from other regions by the type of industrial activities leading to contaminated land. A high percentage of sites in Region 8 on the NPL are the result of our mining heritage. Mining activities in the mountain states created vast piles of mining waste with releases of acid rock drainage to groundwater and surface water. The processing and smelting of ore resulted in large areas being contaminated with high levels of heavy metals, primarily lead and arsenic. Many of the areas are now residential developments and some are impacting tribal lands.

New mining sites continue to be added to the NPL through the abandonment of mining operations. In the past few years, cash flow problems led mining companies to abandon active, permitted operations at Summitville and Gilt Edge, creating emergencies that EPA responded to producing long-term problems for remediation. New sites due to historic mining operations continue to be discovered. For example, two new, large sites with actual health effects on the local population were recently discovered in Libby, Montana and Eureka, Utah. The large-scale Vasquez Boulevard – I-70 site in Denver was also recently identified.

New sites will continue to come to Superfund because no other program has the authority and resources to respond to large, expensive cleanups. Response costs for many of these sites fall on EPA as responsible parties are bankrupt or are no longer in existence, placing tremendous pressure on our budget.

Redevelopment or reuse of Superfund sites in Region 8 is a high priority. Whenever possible, the Region works with the community, property owner, responsible parties and potential developers to make the remedy compatible with the future land use. An example of this type of effort is the Murray Smelter site in Murray, Utah. As a result of this collaborative effort, an old smelter site which contributed little to the local tax base will become a nearly $400 million medical center with light rail access. The parking area for the light rail and a new arterial street through the site are part of the cap for the smelter waste repository. This type of collaborative effort saved the responsible party money, accelerated the cleanup and will return the site to productive use in a short period of time.

C) Regional Strategies/Approaches/Tools:

Region 8 focuses on careful planning and prioritization of site expenditures. This strategy allows the most serious human health risks to be addressed, but will delay the cleanup of sites or portions of sites with ecological risk. State partners are actively engaged in the planning and prioritization process as well as in the implementation of the remedy. Strong emphasis is placed on paying attention to construction cost management, seeking responsible parties and using special accounts to leverage program resources. Emphasis in Region 8 will continue to be to move sites forward quickly and cost effectively within available resources.

The Region will continue to promote the integration of remedy selection and implementation and site reuse through working with state, tribal and local authorities, responsible parties and landowners. The Region has held two workshops with the lending and real estate communities to

promote the benefits and dispel the myths of redevelopment of Superfund sites.

The Region is developing a number of software applications to track post-construction activities and is using internet-based tools to help promote the reuse of Superfund sites, including the development of data bases and Geographic Information Systems (GIS), starting with the City and County of Denver pilot. These tools will be used where appropriate throughout the Region as time and resources allow. The result is determining the best location possibilities for Ready for Reuse land revitalization determinations.

D) Primary Measures of Progress:

Region 8 uses the national program measures described in the *Superfund/Oil Program Implementation Manual (SPIM)* to measure program progress. Remedial Project Managers have access to a variety of project management software applications to allow them to manage and budget site activities.

RCRA Corrective Action

A) Current Conditions:

Region 8 has 55 facilities on its Corrective Action GPRA (Government Performance Results Act) Baseline. The environmental indicator status for "Human Health Exposure Under Control" is currently 78 percent versus a goal of 65 percent for FY03. "Groundwater Migration Under Control" is currently being met at 76 percent of facilities; the goal for FY03 is 50 percent. No Treatment, Storage and Disposal Facilities are located on Region 8 tribal lands, nonetheless, there are many contaminated parcels that need cleanup.

B) Regional Trends/Challenges:

Region 8 has consistently exceeded GPRA goals. Region 8 states and the Region have made remarkable early progress on achieving the FY2005 goals; however, much work at some of the most difficult facilities remains to be done. The primary challenges include: facilities with complex hydro-geologic settings or other factors which extend the typical schedule for investigation and mitigation of groundwater contamination; completion of human health and/or risk assessments; and some federal facilities with budget constraints. Although not part of the Corrective Action GPRA Baseline, some contaminated parcels in Indian Country are small, simple dumps that can be easily cleaned, while others will require complex cleanup plans. Examples include mine scarring, open dumps, petroleum impacts and hazardous generator releases.

It can be difficult to make rapid progress under RCRA corrective action and, at times, to achieve national RCRA Government Performance Results Act (GPRA) Environmental Indicators at various facilities, including petroleum refineries. Refineries in the Region typically require corrective action due to past releases of contaminants to the environment. The corrective action issues at refineries can be complex and highly resource intensive (especially corrective action which may take decades to complete and may affect nearby communities, including environmental justice communities).

C) Regional Strategies/Approaches/Tools:

Region 8 uses a Corrective Action Baseline Status Report and Strategy document to track Environmental Indicator progress at baseline facilities, project accomplishment targets, and monitor progress and strategies for accomplishing goals. We engage state partners formally at mid-year and end-of-year meetings to confirm targets and to identify and address issues and concerns, and informally, at periodic meetings throughout the year. In the future, we will use the same strategies to monitor progress in Remedy Selection and Final Remedy determinations. With respect to environmental indicators, the Region is working with EPA Headquarters to identify new approaches to expedite the achievement of environmental indicators. One such approach is to identify the parties liable for cleanup and then work with those parties to ensure achievement of the indicators by 2005. The Corrective Action program recently designated an "Environmental Indicator Coordinator" and this individual will work with the Region 8 states and tribes to develop facility-specific strategies for meeting indicators by 2005. In order to address the highest priority sites in Indian Country, we will leverage resources from other federal agencies and several EPA programs including Solid & Hazardous Waste, Brownfields and UST/LUST.

As a part of the Region's Revitalization Initiative, the RCRA Brownfields workgroup and the RCRA Corrective Action program are specifically identifying sites that could be cleaned up under innovative approaches. One example includes the Fruita Refinery, where the State of Colorado (with EPA's support) has found success in addressing a much needed community land revitalization clean up along the Colorado River.

D) Primary Measures of Progress:

The Region's primary measures of progress include, the RCRAInfo database, Headquarters Management RCRAInfo Reports and Region 8 RCRAInfo Detailed Management Reports. We are developing a database for Indian Country that includes hazardous and solid waste inventories, priorities, cleanups and land reuse.

Federal Facilities [NPL, non-NPL], BRAC and FUD sites

A) Current Conditions:

None of Region 8's ten federal facility sites will be cleaned to unrestrictive use, as contamination exceeding residential risk levels will be left in place. Three sites have achieved construction completion and the remaining seven will achieve this milestone by the end of the decade. Four of the Region's five Base Realignment and Closure (BRAC) sites have transferred more than 50 percent of the closed property to redevelopment authorities. Three closure sites (Rocky Mountain Arsenal, Rocky Flats and Pueblo Army Depot) will be converted to wildlife refuges once closure and cleanup of the site are completed. These types of activities are clear examples of how the Federal Facilities Superfund programs are key elements in the Region's Revitalization Initiative. Deletion from the NPL is the ultimate goal for the federal NPL sites. One site, Monticello Vicinity Properties, a Department of Energy (DOE) site in Utah, has been completely deleted from the NPL. Partial deletions from the NPL have also occurred at Rocky Mountain Arsenal and the Monticello Millsite.

B) Regional Trends/Challenges:

After several years of missing milestones, most federal NPL and BRAC sites are now able to meet their annually scheduled targets. Funding, public concerns and conflicts with the regulators are still the primary reasons that sites are delayed. These delays are fewer in number today compared to several years ago, increasing the likelihood of achieving construction completion for NPL and BRAC sites by the end of the decade. Two new contaminates of concern are unexploded ordnance and perchlorate. The outcome of pending legislation, which will determine whether these two contaminants are regulated by EPA, could also affect cleanup schedules. Overarching these concerns, is the possible impact the war on terrorism will have on cleanup budgets at Department of Defense (DOD) sites.

C) Regional Strategies/Approaches/Tools:

The Federal Facilities program is working with DOD to inventory formerly used defense (FUD) sites, as well as sites where perchlorate and unexploded ordinance may have been released to the environment. At Rocky Flats, the Region, the State of Colorado and DOE have agreed to use "earned value" [dollar value of project] as a measure of progress toward cleanup, and after two years, this approach has been working well. To link the Federal Facilities program to the Revitalization Initiative, the Region will evaluate if there is an opportunity for more effective use of FOSL's (finding of suitability to lease) and FOST's (findings of suitability to transfer), which are similar to a Ready for Reuse determination.

D) Primary Measures of Progress:

The Region uses Appendix D of the *Superfund/Oil Program Implementation Manual* (SPIM) to measure progress toward the Agency's cleanup objectives. Currently, an effort is underway between EPA, DOD and DOE to identify a common set of measures that all three agencies will use to define progress.

Sub-objective 3.2.3 Maximize Potentially Responsible Party Participation at Superfund Sites

A) Current Conditions:

Region 8's FY02 accomplishments are indicative of a vigorous enforcement program resulting in potentially responsible party (PRP) lead work at 80 percent of the new Remedial Action (RA) starts. Region 8 was second in the nation in value of response settlements for work and cash-outs in bringing in $94.3 million. All unrecovered past costs greater than $200,000 were addressed before the Statute of Limitations for cases in FY02. Cost recovery settlements totaled $6.7 million.

B) Regional Trends/Challenges:

Region 8 faces two significant challenges to maximizing PRP participation. First, a large percent of sites are the result of historical mining in mineral rich mountain ranges. Historic ownership and operational records are difficult to obtain and require specific expertise to untangle what, in many cases, amounts to 100 years and more of mining activity at a particular site. Once identified, many of these historic entities no longer exist, are in bankruptcy or have been subsumed

by others. The latter presents a circumstance where a great deal of information and research are needed to establish successorship and, in some cases, to develop veil piercing arguments in order to establish liability. Second, Region 8 is fortunate that its six states have active cleanup programs and handle many sites without EPA involvement. However, the sites the states typically refer to EPA for action are those which are particularly complex and do not have responsible parties who are willing to step forward to cleanup the site. These sites require significant investment of resources to identify PRPs and to take enforcement actions since the parties are not willing participants. Frequently, these sites also involve bankrupt parties.

C) Regional Strategies/Approaches/Tools:

Region 8 will strive to conserve the Superfund Trust resources by pursuing "enforcement first" whenever liable, viable parties exist at a site. Aggressive PRP searches are the foundation of our strategy. Regional staff and appropriate contract mechanisms are in place to ensure thorough searches. Close coordination during the PA/SI (preliminary assessment/site inspection) phase of a site will enable the early identification of parties. Region 8 will seek to leverage PRP resources to conduct work whenever possible through consent agreements or equitable issuance of unilateral administrative orders. Cost recovery will be vigorously pursued and all cases with costs greater than $200,000 will be addressed before the Statute of Limitations using the full array of settlement tools available including ability to pay, cash-outs and de minimis settlements. Region 8 will continue to maximize the use of special accounts to fund future work. Wherever possible, oversight billing proceeds will also be deposited in site-specific special accounts. These special account funds will be used to decrease site-specific fund expenditures.

D) Primary Measures of Progress:

Early identification of PRP's will enable the Region to take appropriate enforcement actions prior to or at the start of RA at 90 percent of sites with non-federal liable, viable parties. Enforcement actions will include administrative orders on consent, unilateral administrative orders, consent agreements, consent decrees, voluntary cost recovery or civil judicial litigation. Efforts to address cost recovery at all sites with total past costs greater than $200,000 will include, but are not limited to, past cost settlements, ability-to-pay settlements, cash-outs, de minimis settlements, orphan share compensation settlements and litigation. (Refer to SPIM definitions of accomplishments). Whenever possible, the Region will establish site-specific special accounts to ensure past costs recovered are available for use at those sites for future work.

Objective 3.3: Enhance Science and Research

Sub-objective 3.3.1: Provide Science to Preserve and Remediate Land

A) Current Conditions:

Regional conditions are described in detail under Objective 3.1 and 3.2.

B) Regional Trends/Challenges:

EPA Region 8 is pursuing a number of activities to enhance our ability to make informed

decisions about protecting human health and the environment. Many of these activities are related to environmental issues and conditions that are particularly relevant in Region 8.

Due to the large number of sites in Region 8 that are contaminated with wastes resulting from historic mining activities, we have undertaken special studies to better characterize the bio-availability of lead, arsenic and other minerals associated with the Region's mining legacy. Because of the unique concerns related to the Libby, Montana site, considerable efforts are underway to develop risk and analytical tools related to asbestos. Vapor intrusion from the soil and from underground contaminant plumes into commercial properties and residences has recently come to the fore of public and Agency concern, and Region 8 is actively involved in both site-specific concerns and national guidance development. As more of our Superfund NPL sites mature and move into the post-construction phase, we are faced with the challenge of managing the legacy of contamination through long term institutional controls.

C) Regional Strategies/Approaches/Tools:

EPA Region 8 is formulating a scientific technical support structure to support the expanding emphasis on homeland security and emergency preparedness.

Region 8 is the national leader in implementing *in vitro* and *in vivo* studies to assess the bio-availability of various contaminants. These studies help us understand how rapidly a mineral contaminant (typically lead) moves from the gut into the blood and other organs. We will continue to refine this approach and coordinate with national efforts.

Region 8 toxicologists have taken an active role nationally in developing guidance for the use of probabilistic risk modeling and have developed models for regional sites. These efforts will help us better quantify the risks and uncertainty from exposure to numerous contaminants. Region 8 will work with the Tribal Science Council in their efforts to develop options for new risk models that are based on culturally appropriate research to better understand the needs of tribal communities.

Regional toxicologists play a key role nationally in working with the Office of Research and Development (ORD) and the Office of Solid Waste and Emergency Response (OSWER) to develop soil screening levels (SSLs) for ubiquitous toxicants and species. The resulting products speed the development and improve the quality of ecological risk assessments at contaminated sites in throughout the country.

Region 8 scientists are national leaders in developing sampling and analytical tools for dealing with asbestos contaminated vermiculite generated at the Libby, Montana, mine and processing works. New information gleaned from this work is critical for national asbestos policy development.

Region 8 scientists have taken part in the development of new national vapor intrusion guidance and in providing training for states across the country. This effort will improve the quality of

science at the state and federal level in this emerging area of concern.

Region 8 scientists have developed new information systems for integrating environmental data and GIS technology for sites with Institutional Controls (ICs). These systems will enable better monitoring of the efficacy of the ICs. The role of ICs is a central matter of discussion nationally with regard to Ready for Reuse determinations. This work is important as the Agency shifts its focus to returning land and water resources to reuse under the Revitalization Initiative.

Region 8 scientists are national leaders in promoting the use of STORET (the STOrage and RETrieval system) to provide a permanent archive for all environmental data collected during the Superfund assessment and clean up process. The data managed in the STORET archive structure is made available to site managers via a user friendly interface incorporating GIS/IMS. technologies. This novel approach will improve the efficiency and effectiveness of conducing five-year reviews. The Intranet Data Management System (IMS) and Land Use Institutional Control (LUCI) is a City and County of Denver pilot project GIS database of cleanup properties that EPA hopes to use to facilitate its Ready for Reuse determinations. Our goal is to eventually link the IMS and LUCI database to the STORET database. Together, this work supports the Agency's focus to returning land and water resources to reuse under the Revitalization Initiative.

D) Primary Measures of Progress:

Regional science and applied research support the Superfund national policy goals as captured and reported through the Government Performance and Results Act.

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

Sub-objective 4.1.1: Reduce Exposure to Toxic Pesticides

A) Current Conditions:

Region 8 continues to directly implement the Colorado Private Applicator Certification and Training program, issuing approximately 4,000 certificates per year to farmers, ranchers and greenhouse growers following their completion of a home-study training program that emphasizes safety, environmental protection and complying with laws. We employ Spanish-speaking staff or Senior Environmental Employee (SEE) enrollees to assist enforcement staff with farm worker interviews during inspections. The Region has pursued worker protection enforcement actions. We reduced pesticide risks on several fronts including major outreach efforts; and funding of special projects that facilitate a transition away from older, high risk pesticides and toward newer, safer pest management methods. Last year, more than 1,400 shipments of imported pesticides were approved for entry into the U.S. by EPA Region 8. Importation of pesticides into the Region is on the rise – the number of shipments have nearly doubled in the last year.

B) Regional Trends/Challenges:

Funds remain static for state and tribal programs, causing states to contribute a greater share or to cut back programs. Tribes remain under-funded. Several additional tribes in the Region are expressing an interest in having a program, but there are no funds for them. Eventually, tribal funding will be based on a needs assessment. Many states are adopting a pass/fail method of testing pesticide applicators to provide additional risk reduction to the environment and the public; the federal program is statutorily prohibited from doing so. Homeland security risks are associated with conducting federal business by mail. There is currently not a way to require positive identification of the applicants or to do background checks. Denial or revocation of certification requires a great deal of due process for each person, and the criteria do not fit Homeland security needs. Feasible ways to reduce risk are being considered.

C) Regional Strategies/Approaches/Tools:

Region 8 has targeted outreach toward non-English-speakers and sensitive groups such as children. Printed news media for Spanish and Chinese communities in the Region have been successful in reaching consumers regarding pesticide safety and other issues. Grower groups and universities have project funding opportunities targeted toward projects that provide a transition to newer, safer methods of pest management. Region 8 is involved with interagency efforts such as the Sustainable Agriculture Research and Education program, Integrated Pest Management Centers and the development of crop specific Pest Management Strategic Plans, and has establish productive partnerships and working relationships with a variety of agricultural interests. The Region is also addressing pesticide issues in Indian Country with a Tribal Pesticide Program

Committee. The Regional Office also manages grant projects funded by Headquarters in the areas of Environmental Stewardship, tribal water quality and other tribal projects. Regional staff participate on review teams to select the best projects for funding. Credentialed staff review import requests for compliance with the law and work closely with Northern Tier states and U.S. Customs offices regarding imported pesticides. EPA and U.S. Customs civil and criminal enforcement tools provide additional deterrence to violators or smugglers. Regarding Homeland security concerns, applications for private pesticide applicator licenses issued by the Region will continue to be screened, and suspicious applications will be referred to law enforcement authorities for further investigation. Region 8 will continue to review security provisions in state pesticide applicator certification programs. In addition, Region 8 will continue to work with border states (Montana and North Dakota) to address issues related to availability and prices of pesticides in Canada and the US (pesticide harmonization).

D) Primary Measures of Progress:

Direct measurement of the effect of reduced plant, animal and human exposure to pesticides is difficult, because it is impossible to determine how many plants, animals or humans were *not* harmed. Indirect measures, using agricultural data from non-EPA sources, are being evaluated over a period of years to see if trends in pesticide use can be identified. The trends may show a tangible reduction in the quantity of higher risk products used (such as organophosphates) as newer, safer products enter the market. In some situations, economic measures of improved pest control methods can be used, as in the Uintah County (Utah) Mosquito District project, where economic benefits for the tourism and livestock industries were directly linked to an Integrated Pest Management demonstration project for mosquito control. EPA will strengthen training and technical assistance to tribes for integrated pest management. Region 8 will work with other regions and Headquarters to provide sufficient funds for the tribal programs.

Sub-objective 4.1.3: Reduce Chemical and Biological Risks

A) Current Conditions:

Lead (Pb): Based upon the 2000 census data and the National Health and Nutrition Examination Surveys (NHANES) conducted by the Centers for Disease Control and Prevention (CDC), there are approximately 18,000 children between the ages of 1-5 in Region 8 with elevated blood levels for lead. The majority of children with elevated blood levels are minorities and/or living in poverty.

Polychlorinated Biphenyls (PCBs): PCBs, including PCB electrical equipment, have been broadly used in utility industries, commercial buildings and federal facilities. Region 8 currently oversees one PCB commercial incinerator, one military incinerator, one PCB landfill, one PCB/radioactive waste landfill and six PCB commercial storage facilities for storage and/or disposal of PCB wastes, including retired PCB electrical equipment from throughout the country.

Persistent Bioaccumulative Toxics (PBTs): Human exposure to PBT chemicals predominantly

originates from food sources, most specifically fish. Fetuses and children are at the greatest risk of toxic effects from PBTs. Fish advisories have been issued for several surface water bodies in Region 8. A 2001 Second National Report on Human Exposure to Environmental Chemicals (conducted as part of the NHANES report) indicates that 8 percent of the roughly 50 million American women ages 16 to 49 had blood mercury levels exceeding 5.8 parts per billion, the precautionary level set by the EPA. Much of this mercury exposure is likely due to accumulation from fish consumption. The report also identified that children had higher levels of some pesticides. PBTs are transported over long distances in air; easily transferred among air, water and soil; accumulated by organisms that are consumed; and linger for generations. These national and global trends are assumed to be applicable to Region 8 populations and the environment. At present the PBT Initiative has been in-place for four years.

Toxic Release Inventory (TRI): Approximately 600 Region 8 facilities report to EPA under TRI each year. EPA Headquarters is responsible for the collection, processing and compiling of the TRI which is released each year as the Public Data Release. Since the inception of the TRI program, both compliance and data quality has improved due to EPA outreach to the regulated industry. Regional and national TRI data is easily accessed, reviewed and analyzed at several EPA web sites. While TRI is readily accessible, it is difficult to gauge public use of the data.

B) Regional Trends/Challenges:

Lead (Pb): Region 8 must continue to focus on reducing elevated blood levels in the number of children aged one to five. Encouraging states and tribes to develop and implement programs for authorization represents another challenge

PCBs: The safe storage and disposal of PCBs and PCB-containing equipment is an important goal for the Region. Region 8 manages PCB use in existing PCB equipment prior to phase out. The Region is identifying PCB transformers in use and joining the national PCB phase-out program. The Region also provides an outreach program for PCB in underground mines and encourages mining industries to retire PCB transformers early.

PBTs: Fish in many surface water bodies in Region 8 have not been tested for PBTs. Even though some success has been realized, reaching residents and sensitive populations to warn them of the risks of fish consumption remains a constant challenge and requires innovative and creative ways to deliver this message. Small scale and successful outreach, education, pathway intervention, proper disposal and reuse projects should be identified, scaled up and implemented at the regional level.

TRI: Regional TRI programs rely heavily on the support of the national program office for development and management of TRI databases, including TRI Explorer and Envirofacts; TRI data compilation and analysis; development of guidance and outreach documents for industry; and compliance assistance to the regulated industry.

C) Regional Strategies/Approaches/Tools:

Pb: The Region's approach to reducing the incidence of childhood lead poisoning is the continued direct implementation of the certification and accreditation (TSCA sections 402/404); real estate notification and disclosure (TSCA section 1018); remodeling and renovation (TSCA section 406(b)); and lead hazard (TSCA section 403) rules and oversight of state delegated programs. The Region will continue to work with the states, tribes, local government agencies and non-governmental groups to reduce hazards posed by lead. Based upon the 2000 Census data and the NHANES report, tribal populations are at risk for lead poisoning. EPA will work with tribes and other federal agencies (e.g., IHS, HUD, ATSDR and CDC) to explore resources available to conduct a joint assessment of lead poisoning in tribal children 6-72 months of age. EPA then will work with tribes and other federal agencies to develop a joint-plan for conducting blood-lead screening and surveillance of lead poisoning occurring in tribal children 6-72 months of age. There will also be an effort to increase the number of state and tribal authorized programs.

PCBs: The Region issues permits and inspects PCB disposal and storage facilities to ensure those accepting wastes are properly operated and maintained for protection of human health and the environment. The Region also uses outreach program and inspections to achieve the objectives.

PBTs: Region 8 uses outreach, cooperative agreements, partnerships and state, local and tribal capacity building to accomplish PBT strategic objectives.

TRI: Region 8's efforts have focused primarily on compliance assistance to the regulated industry. Region 8 develops and presents a minimum of three TRI workshops for industry each year. Mass mailings, an informal TRI e-mail list serve and phone calls are also used to inform industry of upcoming workshops, proposed and finalized regulations, relevant court rulings and press releases. Additional regional TRI program strategies include promotion of TRI data use in public libraries and by regional EPA employees. The Region also develops innovative and creative outreach tools to promote TRI data use by the communities, academia and industry.

D) Primary Measures of Progress:

Pb: The NHANES report conducted by the Centers for Disease Control and Prevention (CDC) tracks the blood levels of children aged 1-5 in the U.S. It is currently the best indicator of children's blood levels. The report indicated a drop from an estimated 13.5 million children with elevated lead blood levels in 1976 to 434,000 (2.2 percent of children aged 1-5) in 2000. The success of the program will be measured by the capacity of qualified inspectors, risk assessors, contractors, workers and training providers. Another indicator will be the increase in states and tribes granted program authorization.

PCBs: The Region measures and reports the amount of PCBs disposed of at the Region 8 permitted facilities and the reduction of PCB transformers being used at mining industries. The Region also conducts inspections of permitted facilities.

PBTs: The NHANES report, national and regional fish tissue studies, outreach and education activities, capacity building and projects implemented will be used to measure national and regional progress.

TRI: Outreach to the regulated industry is measured by the number of workshops presented and the number of attendees. Industry outreach is also measured by the number of data quality reviews, subsequent letters and phone calls; and the number of facilities reached through mass mailings. Outreach to the general public, regulated industry, academia and regulators is measured by the number of TRI presentations, mailings and the number of website hits.

Sub-objective 4.1.4: Reduce Risks at Facilities

A) Current Conditions:

The Region has a multi-tiered approach to reducing the risk of accidental release of chemicals or oil from stationary facilities. Region 8 has an established auditing programs to evaluate the level of compliance at approximately 1,000 facilities regulated under the Risk Management Program (RMP) and to encourage increased chemical safety at non-RMP facilities through Chemical Safety Awareness (CSA) visits. Over 25 percent of RMP facilities have been visited. Deficiencies identified during the audits are corrected and, to date, all facilities have certified their corrections. Regional staff have prioritized visits to sites with high populations at risk and critical infrastructure. All Region 8 RMP facilities are being assessed for adequacy of prevention procedures, either by facility or desk audit. CSA visits have been focused on facilities with the greatest populations that could be affected by a release.

B) Regional Trends/Challenges:

New emphasis has been placed on conducting security visits and assessing chemical facility vulnerabilities. Region 8 will focus on those facilities with higher potential at-risk populations by assisting with risk reduction, vulnerability identification and improving chemical accident prevention. Region 8 will also use available information, such as the Emergency Planning and Community Right to Know Act (EPCRA) and Spill Prevention, Control and Countermeasure (SPCC) program, to supplement data on potential chemical risk and develop voluntary initiatives and activities aimed at high-risk facilities and/or geographic areas. All facilities releasing a covered substance are contacted. Releases meeting RMP reporting requirements trigger an audit of the accidental release prevention program.

North Dakota and Colorado are considering partial delegation of RMP. If done, this will present a challenge for the current budget allocations.

C) Regional Strategies/Approaches/Tools:.

Region 8 strategy includes continuation of the existing audit program of RMP facilities, CSAs at non-regulated facilities and consistent partnership with the states, tribes and local emergency response organizations. The RMP staff has partnered with the water program in assisting those critical infrastructure water and wastewater facilities in completing their vulnerability assessments and will complete security visits at all RMP facilities in highly populated areas. EPA will work

with communities to ensure that local emergency response plans are current and contain appropriate response and mitigation measures.

D) Primary Measures of Progress:

Region 8's goal is to audit 30 percent of the RMP facilities in the Region by 2010, thereby further reducing the risk of release. CSA visits to high-risk facilities will also reduce the risk of release. To date, 25 percent of RMP facilities have been audited and more than 1,000 non-compliance items have been identified and corrected. This effort represents a substantial portion of the goal of 2010.

Objective 4.2 Communities

Sub-objective 4.2.1: Sustain Community Health

Community-based Protection of Watersheds and Ecosystems

A) Current Conditions:

Facing challenges such as growth and sprawl, loss of agricultural lands, proposed energy development and increases in nature-based tourism, many communities in the West have an increasing interest in managing natural resources from the local perspective. Because of the importance of water resources in our arid Region, this interest often takes the form of local watershed and/or ground water management initiatives, which may extend into the protection and conservation of land and habitat in the watershed (the Region's support for local watershed efforts is further detailed in Section 2.2.1).

B) Regional Trends/Challenges:

With more emphasis being placed on local environmental decision-making, it is an increasing challenge to adequately support and fund all of the communities that want to build local environmental stewardship capacity and implement environmental improvements. In addition, communities find it difficult to navigate the complex maze of EPA programs and statutes, and to find the right people in the regional organization to assist them with questions and concerns. Region 8 states have to varying degrees also provided direct support to communities. As the states' budgets have contracted, state agencies may find it increasingly difficult to continue to provide this kind of support.

C) Regional Strategies/Approaches/Tools:

The mission of the Resource Protection & Stewardship Unit (RPSU) is to support community-based efforts to protect and manage natural resources. RPSU provides support, leadership, facilitation, assistance in assessing impacts to local resources and financial and technical assistance to a limited number of individual local groups, as well as providing tools and training that serve multiple communities. In those communities where RPSU is providing direct technical assistance, part of that role involves educating the community about relevant EPA programs and tools, and facilitating or brokering involvement from other EPA programs as appropriate in an integrated

manner. The new operational model of integrating the delivery of EPA's programs at the local level, with an emphasis on watershed and revitalization/clean-up programs, has been piloted in several communities. Ongoing pilots include the San Juan Mountains of Colorado, Left Hand Canyon near Boulder, Colorado and the Red River corridor in North Dakota.

RPSU is also assisting several communities on a pilot basis with using available data to complete ecosystem assessments that will help provide sound scientific answers to management questions that the local community identifies as important (for further detail on ecosystem assessment efforts see Section 4.3.1). Two communities receiving this assistance are Eagle County, Colorado and Creede, Colorado.

Successes and lessons from these communities will continue to be shared across the Region through project profiles on Region 8's website, the *Natural News* newsletter, and presentations at workshops and conferences.

D) Primary measures of progress: (see also measures at 2.2.1 and 4.3.1)

- Number of communities that have completed watershed management plans or ecosystem/hydrologic assessments with assistance provided by EPA.

<u>Sub-objective 4.2.2: Restore Community Health</u>

Environmental Justice_

A) Current Conditions:

The Environmental Justice (EJ) program in Region 8 manages a wide range of activities, including but not limited to, grants (issuance and review), training (tribes, EJ communities and regional staff) program integration, site-specific consultation, geographic initiatives and outreach to over 620 community groups. The EJ program coordinates closely with states, tribes and other regional programs, such as Superfund, RCRA, Pollution Prevention, Air, Enforcement, etc., to ensure continued support of environmental justice issues.

B) Regional Trends/Challenges:

Tribal and environmental justice communities have challenges leveraging funds and participating in the regulatory decision-making process. The Region 8 program needs to continue to conduct a variety of activities including: training on effective grant writing skills; outreach activities in all of the Region; coordinating with other regional programs (Superfund, UST, RCRA, watersheds) to integrate environmental justice into the decision-making processes; and, multi-media initiatives in EJ communities. Other priorities include continued marketing of the environmental justice program (e.g., press releases and newspaper articles predominantly distributed in environmental justice communities) and providing "technical assistance," while adequately monitoring progress of a growing number of environmental justice grants.

C) Regional Strategies/Approaches/Tools:

The nucleus of the regional strategy is to thoroughly integrate EJ into every facet of the national

enforcement and compliance assurance program and other regional programs, specifically EPA permitting processes. The Region will continue its outreach, technical assistance and consultation as well as its grants management and oversight to build tribal and environmental justice capacity. The Region's outreach to environmental justice communities, such as the North Denver community, will serve as a model for future activities.

The EJ program will: 1) identify EJ communities or areas which display disproportionately high adverse human health or environmental effects on minority and/or low income populations; 2) ensure that enforcement actions require human health and/or environmental improvements such as pollutant reductions or physical management or process changes; 3) ensure that Supplemental Environmental Projects (SEPs) for enforcement actions within EJ areas be comparable to those in other communities; and 4) track and report activities, actions, outputs and outcomes of work done to address EJ concerns and issues.

EJ program initiatives will include several geographic initiatives, a lead inspection and abatement initiative, a Clean Air Act-Air Toxics initiative and a Community Right-to-Know, Non-Reporters initiative.

Specific EJ initiatives will include: a Northeast Denver initiative, which will consist of a multi-media compliance and enforcement component, an Anti-Idling component and a Superfund component; a Colorado initiative, evaluating whether there are EJ communities in which high blood-lead levels in children are indicative of lead contamination or indicative of lead-based paint dangers; and, a City of Pueblo initiative, on land revitalization and land use issues and on incorporation of EJ concerns into the RCRA permitting process. In addition, the EJ program will also continue to work in rural areas, with the cooperation of agricultural producers, to evaluate the quality of drinking water supplies used by farm workers.

D) Primary Measures of Progress:

- Number of SEPs benefitting EJ communities
- Number of EJ training workshops
- Number of environmental justice projects
- Number of outreach activities conducted
- Number of TRI facilities identified as non-reporters
- Number of Compliance Assistance brochures provided as part of the Anti-Idling initiative
- Number of educational packets distributed to communities identified as having children with high blood lead levels
- Number of EPA employees trained in the basics of EJ.

Sensitive Populations

A) Current Conditions:

The Children's Environmental Health (CEH) program in Region 8 is responsible for ensuring that protection of children's health is a fundamental goal of public health and environmental protection in the Region. In addition, CEH is responsible for implementing Executive Order

13045, as well as the National Agenda to Protect Children's Health from Environmental Threats.

The CEH program is also responsible for leading effort to integrate multi-media environmental programs' activities in order to: reduce environmental health risks to children throughout the Region; help states and tribes develop infrastructure and capacity; assist other federal, state and local agencies, communities, and private sector entities develop the knowledge, resources and capacity needed to institutionalize children's environmental health in their day-to-day activities; and, increase the ability of health professionals to identify, prevent and reduce environmental health threats to children.

The Region is involved in the implementation of the new Aging Initiative in order to protect the health of older Americans. We are working with various federal, state/tribal and local organizations to encourage volunteerism among older persons in their own communities to reduce environmental health hazards and protect the environment for future generations.

B) Regional Trends/Challenges:

Low income, minority, tribal and migrant farm worker children often face a disproportionate risk of multiple environmental exposures due to: a) substandard housing; b) access to health care; c) language barriers; d) proximity to polluted environments; and e) parents occupational take-home exposure. Currently, environmental and health data on sensitive populations is often aggregated at the Agency (national) level and does not provide the necessary detail to be fully utilized by the regional offices.

C) Regional Strategies/Approaches/Tools:

The Region will continue to work with federal, state/tribal and local organizations and the community at large to develop capacity and resources to address CEH. We will also continue to work with the Rocky Mountain Region Pediatric Environmental Health Specialty Unit to increase the ability of health professionals to identify, prevent and reduce environmental health threats to children. As resources allow, the Region will pilot the development of a child health champion school district to implement an environmental management system approach to identifying and improving the schools' environmental performance. We will also continue to provide technical assistance and outreach on CEH to the community at large. The Region will work with organizations on the aging to identify volunteer opportunities for older persons to reduce environmental health hazards and protect the environment for future generations.

D) Primary Measures of Progress:

- Number of CEH grants provided to states and tribes
- Number of meetings with the PEHSU (Pediatric Environmental Health Specialty Unit)
- Number of CEH Champion School Districts identified
- Number of Supplemental Environmental Projects that are targeted towards CEH projects
- Number of outreach activities conducted
- Number of older persons volunteer opportunities identified.

Sub-objective 4.2.3: Assess, Clean Up and Develop Brownfields

A) Current Conditions:

Region 8 does not have many of the heavy industry brownfields sites typical of other parts of the country. Our brownfields opportunities include smaller scale urban sites, rural and tribal sites and mine scarred lands. Region 8 currently has 71 Brownfields grants (40 existing + 31 new) and Colorado's Revolving Loan Fund has issued two loans totaling $2.7 million. All six states have Brownfields Response program grants and 18 of the Region's 27 tribes have applied for (and will receive) Brownfields Response program grants in FY2003.

B) Regional Trends/Challenges:

Tribal and rural communities have greater challenges leveraging funds, and attracting developers, new businesses and jobs than their urbanized, heavily industrialized counterparts. Program challenges will include attracting investment at tribal and rural sites, developing capacity in tribal response programs and coordinating with other regional programs (e.g., Superfund, UST, RCRA, watersheds) to integrate revitalization and 'one-cleanup' initiatives. We must also continue marketing and providing technical assistance, while adequately monitoring progress of a growing number of grants.

C) Regional Strategies/Approaches/Tools:

The Region will continue its outreach, technical assistance and oversight to build local capacity for assessment and clean up, restoration and redevelopment of Brownfields projects. The Region's outreach to individual tribes that resulted in 18 of the 27 tribes developing response programs is a model for future outreach activities. The Colorado Revolving Loan Fund Coalition, representing 7 communities, will continue to be a model for funding Brownfields cleanups. The Region will continue to use its Targeted Brownfields Assessments (TBAs) to leverage resources in other programs (Superfund, RCRA, UST, etc). Green space/open space preservation will continue to be a priority for Region 8 communities, especially when dealing with mine scarred lands. Balancing between Grant and revitalization initiatives can be resource intensive. Region 8 is also putting a stronger emphasis on a Federal Partnership that supports the Brownfields program and the Region's Land and Water Remediation, Restoration and Reuse work. This is just one example of how the Region is shifting even newer programs to support the Revitalization Initiative.

D) Primary Measures of Progress:

- Number of Brownfields TBAs completed
- Number of Brownfields assessment & cleanup grants awarded
- Number of Job Training grants awarded
- Number of Revolving Loan Fund grants awarded and subgrants/loans made.

Objective 4.3: Ecosystems

Sub-objective 4.3.1: Protect and Restore Ecosystems

A) Current Conditions:

Region 8 has a rich variety of unique ecosystems ranging from high-alpine wetlands to scarce and biologically significant riparian areas. Due in part to the preponderance of public lands in the Region (one-third of the land area), there are still extensive areas that are relatively ecologically intact. In addition, Region 8's position at the headwaters for many major river systems – the Colorado, the Missouri, the Arkansas and the Rio Grande – makes the condition of aquatic resources of special significance.

Region 8's Ecosystems Protection program has provided considerable support for local ecological restoration and protection efforts– examples include the largest tallgrass prairie restoration in Minnesota (funded and supported out of Region 8), protection of high alpine wetlands that provide source water for San Miguel County in Colorado and restoration of many miles of stream channels and riparian resources around the region that had been altered or channelized. These projects have created many successful models for use of local tools and leadership to protect and restore ecosystems on a local scale. However, the Region does not yet have tools in place to target and implement larger-scale protection and restoration of ecosystems.

B) Regional Trends/Challenges:

Many ecosystems in the Region are experiencing increased stress due increased energy development, rapid population growth and resource-intensive development patterns, expanding nature-based tourism and recreation and historic and current mining. These stressors in turn lead to other problems, such as increased incidence of wildfires where rapid development is occurring adjacent to public lands; this in turn creates significant impacts to water quality, often in source water areas. The Region has in the past lacked adequate analytic tools to be able to assess stressors and impacts at a regional scale in order to be able to identify priority ecosystems that are either highly impaired and needing restoration, or in good condition but under imminent threat of impairment. Better tools are needed to help direct future investments in ecosystem restoration or protection to achieve the best results. Also, further work is needed on how better assessment tools can help influence program priorities across other EPA programs at the regional level.

C) Regional Strategies/Approaches/Tools:

Region 8 is fortunate to be well along in the development of the Environmental Monitoring and Assessment Program's (EMAP) Western Pilot, a large-scale effort to assess the health of ecological resources across the western U.S. The products from this effort will assess ecological condition at a variety of scales– regional, state and ecoregional– with an emphasis on the condition of aquatic resources and the relative impact of various stressor to those resources. This will be a powerful tool to help prioritize and target future ecosystem protection/restoration and water quality improvement efforts using our program tools– permitting, water quality standards development, enforcement, etc. In addition, the Region is working with local, state and federal partners to pilot assessments at a watershed scale in the San Juan Mountains of Colorado. These

assessments include landscape, aquatic resource and limited atmospheric components, and will be framed to help answer management questions of interest to local stakeholders. In addition, EPA will work with tribes to develop a pilot assessment for culturally significant areas. Support for a limited number of local-scale individual ecosystem protection or restoration projects will also continue, with support from primarily the wetlands and Regional Geographic Initiative programs. The Region will coordinate with multi agencies to address transboundary threats to tribal water resources, consistent with bilateral and multilateral treaty obligations and federal trust responsibility to tribes on US northern borders.

D) Primary Measures of Progress:

2004

- Complete ecological assessment of stream condition in the Montana Northern Plains
- Complete ecological assessment of stream condition in the Southern Rockies
- Complete assessment of the aquatic resources of the Willow Creek watershed in southern Colorado.

2005

- Complete ecological assessment of stream condition in one additional watershed TBD.

2006

- Complete ecological assessment of the Upper Missouri River and the Upper Missouri River basin.

2007

- Complete EMAP assessment of stream condition in EPA Region 8 (including individual components for each state, many of the Region 8 ecoregions, the Yellowstone Basin and the Upper Missouri River basin).

<u>Sub-objective 4.3.2: Increase Wetlands</u>

A) Current Conditions:

EPA Region 8 is presently evaluating sectors such as gravel mining to develop cumulative impact tools. There are no states or tribes within Region 8 that implement the 404 program so permit tracking and compliance is conducted by the Army Corps of Engineers. Documentation of wetland losses in Region 8 is best reflected by the US Fish and Wildlife Service National Wetlands Inventory (NWI) reviews as State 305(b) reports do not currently address wetland gains/losses. Digitized NWI data is available for about one-half of Region 8. There are no known surveys in Region 8 which address gains or losses in streams or lakes.

B) Regional Trends/Challenges:

The alteration of aquatic resources of Region 8 (including wetlands) is increasing as development increases. While development is generally limited to several localized areas, recreational and energy development is increasing throughout many rural areas with aquatic alterations occurring as a result of water supply development and ground water pumping for discharge to the surface.

Trans-basin diversions, and their associated chemical and physical alterations, are increasing as drought gives rise to new water development projects.

C) Regional Strategies/Approaches/Tools:

EPA Region 8 will continue to work with states and tribes through the wetland grant program to develop aquatic habitat (to include wetlands) monitoring tools which will document functional condition within the aquatic community. We are continuing to develop a wetland mitigation monitoring strategy to assess both the acreage and function of wetlands identified as impacted due to development.

Region 8 will continue to work with Headquarters, Army Corps of Engineers and other resource agencies in developing guidance intended as a basis for formulating mitigation special conditions in 404 permits. The Region will support opportunities for increased wetland protection by working with National Resource Conservation Service on Farm Bill-related activities. The Region will support increased wetland stewardship on private and public lands through outreach and education. The Region will also support and assist state wetland inventory efforts as a part of the wetland monitoring and assessment emphasis. The Region will provide opportunity for state input into determining 'regional focus areas' for Regional Consolidated Funding Process/Wetland Protection grant funding priorities.

D) Primary Measures of Progress:

- Development of joint Corps/EPA guidance on improving the success of compensatory mitigation
- Number of joint Corps/EPA mitigation site visits
- Development of wetland monitoring and assessment protocol (Montana and North Dakota)
- Development of wetland outreach documents for the development sector.

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

Sub-objective 5.1.1: Compliance Assistance

A&B) Current State/Major Problems to be Addressed:

The Region 8 compliance and enforcement program attempts to integrate both traditional national enforcement program priorities and the unique nature of Region 8 and its priorities. The unique Regional issues and priorities focus on environmental impacts associated with mining and natural resource extraction, fossil fuels and energy generation and transmission, population growth, agriculture, federal and tribal lands, direct program implementation and environmental justice. The unique nature of Region 8 and our priorities direct our strategic plans not only for Compliance Assistance, but also Compliance Incentives and Monitoring and Enforcement.

The Region encompasses a large land mass (larger than any other Region, except Region 10). Tribes own a large portion of Region 8, which creates challenges associated with jurisdictional issues and direct implementation. While the population of the Region is currently low, much of it is densely clustered within the Denver and Salt Lake City areas. Nevertheless, these and other geographic areas are experiencing some of the most rapid population growth in the nation. The population distribution, tribal and federal lands and the size and populations of the states in the Region also require that the Region directly implement entire programs (including the Wyoming drinking water program). The Region's economy is also expanding from traditional industries including mining, fossil fuel (coal and oil) extraction, land based tourism and agriculture to significant growth and emphasis on alternative energy extraction, generation and transmission activity.

The Region contains significant land under tribal jurisdiction. Tribal reservations are large and widely dispersed in Region 8, though low in population. The Region provides direct implementation of many programs in Indian Country. Tribal policies and issues require significant dedication to Compliance Assistance and constrains the Compliance Monitoring and Enforcement process and outcomes. This situation, along with rapid growth and an emerging energy economy, and continuation of traditional agricultural activity creates significant environmental justice issues throughout the Region. Because much of the land within the Region is also federally owned, there are unique challenges in the area of tourism, energy, growth and jurisdictional issues.

Lastly, the Region has been a national leader and will continue to make significant contributions to the continuing national compliance assurance priorities and the emerging national enforcement program priorities of smart enforcement, increased use of data for enforcement, accountability and

state oversight and environmental justice. This includes use of the Region 8 Uniform Enforcement Oversight System and expansion of it to smaller and non-delegated programs, use of expedited enforcement policies and initiatives in the smaller and non-delegated programs, expansion of our Environmental Justice (EJ) program, and continued use and expansion of the Integrated Compliance Information System (ICIS), a web based tool for management and accountability, to monitor and direct environmental outcomes.

Over the last three years Region 8 has reached over 200,000 entities with some type of assistance (including on-site visits, tool development, outreach material, presentations, meetings, workshops and phone calls/e-mails). These activities involved business sectors such as agriculture, auto service, manufacturing, federal facilities, state, local and tribal governments, dry cleaners, metal services and petroleum refineries. EJ grants are used to target compliance assistance in EJ geographic areas or for particular populations such as farm workers.

One trend/challenge unique to an area of emphasis for Sub-objective 5.1.1 (Compliance Assistance) is to continually expand each type of outreach to cover the broadest audience, and increase the quantity and quality of outcome information from outreach efforts.

C) Regional Strategies/Approaches/Tools:

Over the next five years we plan to continue to improve the network of providers (that includes all levels of federal, state and tribal government), expand communication to improve program cohesiveness and effectiveness and increase information sharing to augment the number of entities reached through compliance assistance. We share the Agency goal of advancing the measurement of compliance assistance outcomes. Such outcomes include pollution reductions, improvements in facility environmental management practices and an increased understanding of environmental requirements. We plan to routinely incorporate outcome measurement into the planning and implementation of our compliance assistance activities where feasible. Per Agency guidance, we will increase our commitment to measuring outcomes of National Office of Enforcement and Compliance Assistance (OECA) and Regional priorities using a variety of follow-up methods (survey, pre and post tests, on-site revisit and self reporting). Additionally, any planned compliance assistance project using contract or grant funds will include outcome measures as well.

D) Primary Measures of Progress:

Per Agency guidance, the primary measures of the compliance assistance program are in the form of outputs and outcomes. Outputs include various activity totals such as number of on-site visits, workshops, presentations/meetings, phone calls/e-mails, outreach materials and tool development. Outcomes include increased understanding of environmental requirements, improved environmental management practices and reduced pollution. Region 8 will contribute to the national goals in a manner commensurate with available Regional resources.

<u>Sub-objective 5.1.2: Compliance Incentives</u>

A&B) Current State/Major Problems to be Addressed:

Self disclosures of non-compliance continue to be a viable and useful incentive for both the regulated community and Region 8. In connection with the Audit Policy, EPA has established, and

continues to establish, programs for promoting environmental compliance and the correction of violations by offering incentives provided to the regulated community in exchange for agreements to perform self-assessment, disclosure and the correction of violations. These incentives may involve reduced penalties for violations, extended time for correction, reduced inspections and/or other considerations. Over the last four years, Region 8 has received an average of nine self disclosures of violations each year, with the number generally increasing every year. As a result of this program, coordination with some of our states has increased and we have improved both state and EPA incentive programs.

The Regional trends/challenges applicable to this Sub-objective are more fully described in Sub-objective 5.1.1 above. Unique to this Sub-objective is that although progress has been made over the last four years, the Region plans to improve the success of this incentive program and expand its audience.

C) Regional Strategies/Approaches/Tools:
Over the next five years, the Region will expand its incentive program to include tribal lands.

D) Primary Measures of Success:
The primary measures of our incentive efforts include an increased number of self disclosures of violations received, which will result in operational improvements and/or pollution reduced. Measurement of such outcome results will be included where feasible. Region 8 will strive to contribute to the national goals in a manner commensurate with available Regional resources.

Sub-objective 5.1.3: Monitoring and Enforcement

A&B) Current State/Major Problems to be Addressed:
Over the last four years, both monitoring and enforcement efforts in Region 8 have remained vigorous. We conducted an average of 1,864 inspections a year through many program efforts, an average of 79 penalty orders were issued and an average of 136 compliance orders were issued. Additionally, the Region referred an average of 23 cases per year to the Department of Justice. The Region has placed great emphasis on the development and use of data for smart enforcement and targeting for environmental results and is tracking activities for all programs in ICIS. In the last three years, enforcement actions in Region 8 have had a total injunctive relief average value of $166,205,164 per year. This figure represents actual environmental improvements in the area of emission controls, cleanup and restoration of contaminated media. Additional benefits of environmental actions include Supplemental Environmental Projects (SEPs). In the last three years, Region 8 has worked through our enforcement process and developed SEPs valued at approximately $ 2 million per year on the average. These SEPs provide direct benefits to the communities surrounding facilities were Region 8 takes enforcement actions. In many cases these areas are environmental justice communities (North Denver and Pueblo, Colorado). Also through the use of SEPs, the Region is targeting renewable energy projects. Environmental benefits of enforcement actions for the last fiscal year include more than 10 million pounds of pollutant reductions as a result of our actions, more than 2.5 million pounds of contaminated soils removed and properly disposed and more than 120,000 people drinking safer water as a result of our actions. The Region has also been a national leader in the areas of accountability with its Uniform

Enforcement Oversight System and in the area of environmental justice.

As more fully described above in Sub-objective 5.1.1, the unique trends and challenges in Region 8 include impacts and issues associated with natural resource extraction, energy development, generation and transmission, growth, agriculture, federal and tribal lands, direct program implementation and environmental justice. These unique characteristics will continue to guide our strategic compliance and enforcement activities. We have developed strategies/tools/approaches to integrate both national and regional priorities.

C) Regional Strategies/Approaches/Tools:

In general, over the next five years, we will continue to use the full spectrum of approaches available. These include inspections, monitoring efforts, supplemental environmental projects (many of which will be targeted in EJ areas and to increase the Region's capacity for renewable energy), state oversight and work-share opportunities, capacity building of regulatory partners, informal and formal enforcement and others. The strategies/approaches/tools we will use can be grouped as both cross-cutting multi-program/media strategies and the more traditional (OECA, Memorandum of Agreement) enforcement program and sector strategies. The cross-cutting strategies address the areas of smart enforcement, better use of data for enforcement, accountability and environmental justice. Our traditional/Memorandum of Agreement (MOA) strategies include those to address national priorities. These are: petroleum refining (in exit strategy stage), New Source Review/Prevention of Significant Deterioration (NSR/PSD) requirements, air toxics (with a focus on Maximum Achievable Control Technology standards), Wet Weather (including Sanitary Sewer Overflows, Concentrated Animal Feeding Operations and Storm Water), Resource Conservation and Recovery Act (RCRA) mineral processing (including extraction, illegal recycling operations, illegal dilution and misidentification of waste) and a tribal priority, focused on training, compliance assistance and capacity building and financial assurance (related to determining appropriate amounts of resources that companies need in order to meet their environmental responsibilities). A regional priority, agriculture/pesticides (primarily related to pesticide mis-use, cross-border issues and worker protection) is also an area of emphasis. The strategies to achieve our goals in each of these areas are described below.

Cross-cutting Priorities

EPA Region 8 will focus on smart enforcement, better use of data, accountability and environmental justice. In the area of smart enforcement, the Region will develop an approach that will allow us to maintain our presence, and address violations found in non-delegated and smaller programs, expedite activities and address the most significant problems and outcomes. To quickly and effectively deal with smaller cases, and focus our efforts on more significant violations and actions that result in direct environmental benefits, the Region will develop expedited enforcement efforts and strategies (such as in the Oil Pollution Act program). This approach relies on combining and expediting monitoring and enforcement processes, leading to an earlier return to compliance and shorter time frames in the area of litigation. The facilities agree to fix any compliance problems faster, and in exchange, EPA reduces penalties. The Region will need assistance from OECA in this effort. The Region will also increase its targeting capabilities (largely through use of better data for enforcement and the ICIS system) to achieve environmental

outcomes. We will move toward more timely and effective enforcement activities utilizing ICIS, expedited settlements, dealing with inspection and case backlog issues, model documents, better coordination and work share with Department of Justice and the states and the redirection of resources to areas of environmental impacts and outcomes. Emphasis will continue to be in the core programs and where the region has direct implementation responsibility.

In the area of better use of data, we will continue to use the ICIS system for all programs in order to track and expedite activities, measure and report both outputs and outcomes and direct activities to measure environmental results. The Region will also use the emerging "Watch List" concept to maintain core program integrity and as a tool to ensure regional and state accountability. Region 8 will also refine and supplement data and reports being developed in the context of the monthly ICIS Senior Managers reports, Regional Performance Management Tool, and OECA Regional Activities measures (OECA "trip" and End of Year Reports). These refinements will be used to deal with program corrections and enhancement of environmental outcomes.

With respect to accountability, the Region will rely and expand upon its Uniform Enforcement Oversight System (UEOS), which has been adopted as the model for the forthcoming national oversight system for state enforcement programs. Our expansion of the system will include evaluating and addressing issues in non-delegated and tribal programs, and providing increased accountability and differential oversight for delegated programs. The Region will also use the emerging OECA "Watch List" and other non-program review methods and approaches to supplement our accountability efforts.

In the area of environmental justice, EPA Region 8 has long been a national leader. The Region will continue to maintain regional, geographic and national efforts through the EJ organizational component of our Enforcement, Compliance and Environmental Justice (ECEJ) Office and through enhanced integration of EJ activities in other regional programs. Our EJ strategic plans are fully developed and outlined under two different objectives; Objective 5.1-Improve Compliance and Objective 4.2-Communities.

Traditional (MOA) Priorities

In addition to the above cross-cutting priorities we will continue to support national efforts and address unique regional issues and priorities. All programs will contribute to the cross-cutting priorities and will focus on traditional/MOA and regional priority-oriented efforts including:

Clean Air Act (CAA) Program: This program area will primarily focus on addressing our priority issues of energy, growth, smart enforcement and environmental justice through NSR/PSD work. In addition to the potential NSR/PSD investigations associated with the Refinery sector exit strategy, Region 8 plans to continue to support the national and regional NSR/PSD initiative through investigations at coal fired power plants.

Region 8, in conjunction with Region 8 states, plans to close out refinery sector work in the next two years through implementation of a leveraged and coordinated approach. We continue to

utilize unaddressed violations and commensurate enforcement actions to encourage refineries not yet involved in national or regional settlement conversations to resolve all potential violations of the "marquee" Leak Detection and Repair, Benzene Waste-National Emission Standards for Hazardous Air Pollutants, New Source Performance Standards Subpart J/Flaring and NSR/PSD requirements.

CAA -Maximum Achievable Control Technology (MACT): The MACT program will emphasize work to address the areas of energy and extraction industries. The Region will lead the oil and natural gas production MACT (maximum available control technology) development effort. We believe that there will be growth in the oil and gas transmission and production sector in our Region and this may include impacts on MACT Subpart HH and HHH and PSD/NSR issues. We will work with the states in the Region and industry to further develop our understanding of the potential problems in this sector.

Clean Water Act Program: The Water program will address the national and regional priority areas of energy and natural resource extraction and transmission, growth, agriculture, federal and tribal lands, direct implementation and environmental justice. In the area of Wet Weather, the Region will continue to work with the two existing Combined Sewer Overflow facility in Region 8. The universe of Sanitary Sewer Overflow's (SSO's) is currently being defined through a Region-wide inventory effort by the states and EPA. The Region is also compiling its own list of SSO events from additional sources (e.g., citizens complaints, newspaper articles and reported spills).

The Region will continue an ongoing effort to inventory Concentrated Animal Feeding Operations (CAFOs) and Animal Feeding Operations (AFOs) in Indian Country. To date, the Region has used ground surveys and aerial flyovers to inventory AFOs and CAFOs in these areas. Region 8 is currently tracking CAFOs identified through past inventory efforts and complaints. The program intends to perform follow up inspections at facilities that claim to have corrected unacceptable conditions to verify their current compliance status. It is anticipated that the Region will use a full range of enforcement actions from warning letters, information requests, administrative orders, administrative penalty orders and judicial referrals, using appropriate escalation in adherence with the Region 8 Tribal Policy.

Regional storm water efforts will focus on construction, auto salvage and municipal separate storm sewer systems (including the development and piloting of a municipal separate storm sewer system inspection protocol, along with providing related training to our states). Attention will continue in the areas of pretreatment, bio-solids, the §404 Wetlands program and the §311 Oil Pollution Act (OPA) program. The Wetlands program will continue to work with smaller landowners/farmers, who may be in need of regulatory information/assistance. These efforts will be closely coordinated with other federal agencies who may be involved. The OPA program will continue to use a geographical approach to identify violations, prioritize violations for actions, while emphasizing expedited settlements when appropriate.

Safe Drinking Water Act Program: The Drinking Water program will focus effort in the areas of direct implementation, environmental justice, growth and development and tribal lands. The

program has direct implementation responsibility for one state program, along with responsibility for all tribal public water supplies in Region 8 (875 plus facilities). The Region will focus efforts on ensuring optimum compliance with microbial rules at these facilities, placing a priority on violations which pose an acute health threat. Focus will also be given to small drinking water systems or those with part-time operators. The Region will work with its state partners to increase the awareness of small-system operators to their monitoring and reporting requirements and to build small systems technical and financial capacity to perform the required activities. The resolution of Significant Non-Compliance at facilities continues to be a priority for the Region.

The Underground Injection Control (UIC) program will continue to focus its efforts on Class V wells, along with a strong field presence in Indian Country, where a significant number of waste injection wells (mostly Class II) operate.

Pesticides Program: Focus will continue priority areas of agriculture, direct implementation, tribal lands, homeland security and environmental justice. This will be accomplished through field presence in the core areas of the non delegated Federal Insecticide Fungicide, Rodenticide Act (FIFRA) program. The Region will continue its efforts in the Worker Protection Standard Program and the interface of that program with EJ concerns and applications. We will continue to use and promote the National Agriculture Compliance Assistance Center for access to compliance materials related to FIFRA core functions, worker protection requirements and other EPA requirements that may impact the agricultural community. Pesticide producing establishments and restricted use pesticide dealerships offer opportunities to provide information and bolster cross cutting/program efforts in homeland security. The Region will also continue to address international and Canadian border pesticide issues.

Toxic Substances Control Act (TSCA) and Emergency Planning and Community Right-to-Know Act (EPCRA) Programs: The EPCRA program will primarily support work in the agriculture, energy, direct implementation, use of data for enforcement and environmental justice priority areas. This program will also focus on unique homeland security priorities. The program will continue focus on ensuring regulated facilities disclose accurate information of toxic chemicals that are used/stored on-site. Currently, new regulations will require focused assistance on EPCRA §313 for new reporters and the asbestos Worker Protection Rule (TSCA §403). Efforts will continue with data quality inspections, along with other screening and targeting tools to focus limited federal resources on national and regional priority areas. A potential area of emphasis is to target facilities that meet reporting criteria but have not reported to EPA.

The TSCA (Toxic Substances Control Act) program will emphasize work in the environmental justice, direct implementation, tribal and federal lands and growth priority areas. These will be addressed by the program continuing work with lead-based paint issues, including the Lead Disclosure Rule (§1018) and §402/§403/§406. There have been several new rules that merit increased activity and an increased field presence. The Region will continue to screen tips and complaints for potential violations of §1018, as well as the §402 Abatement, Training and Certification rule and the §406 Renovator and Re-modeler Rule. We will continue to support and contribute to the Agency goal of 9,000 lease reviews each year. Coverage in asbestos will

continue under the Asbestos Hazardous Emergency Response Act and asbestos MACT. The Polychlorinated Biphenyls (PCBs) program will continue to focus on the decommission of PCB-laden equipment, and the close monitoring of facilities that store and dispose of PCB contaminated materials.

EJ/Community Outreach: This program is cross-cutting in nature, involves multi-program efforts and is more fully described in Objective 4.2-Communities of this Strategic Plan. In summary, areas of emphasis include public water supply to migrant farm worker camps, air emissions specific to facilities in the Pueblo and North Denver EJ geographic initiative areas, National Environmental Policy Act issues related to Coal Bed Methane, the Missouri River and the I-70 area. The EJ program will continue work on Total Maximum Daily Load issues for the Cheyenne River Sioux, Superfund issues in the I-70 geographic areas and Base Realignment and Closure, RCRA and SEP's issues in the Pueblo area. EJ will continue to be an integral part of all program efforts in Region 8, to ensure that all EJ concerns are addressed. The Region will continue to ensure that the public has access to data about high-risk communities.

RCRA Program: The RCRA program will primarily address the strategic areas of energy and natural resource extraction. Ongoing efforts will continue in the significant national enforcement efforts associated with the magnesium industry. Focus of efforts will include the exit strategy related to the Brass Foundries sector, with primary activity in disposal of spent cashing sand. Additional attention will be given to the problem of permit evaders. This effort will include facility screening, monitoring and other approaches. Work will continue in the areas of Underground Storage Tanks (UST), with many approaches such as monitoring, assistance and enforcement.

D) Primary Measures of Progress:

Per Agency and regional guidance, some of the measures for the monitoring and enforcement programs include increases in pounds of pollution reduced (air, water and land), injunctive relief amounts collected, the number of SEPs, populations impacted, environmental management systems (EMS) undertaken at regulated facilities and output numbers of various activities. Region 8 will strive to contribute to the national goals in a manner commensurate with available regional resources.

Objective 5.2: Improve Environmental Performance through Pollution Prevention, Innovation and Analysis

Sub-objective 5.2.1 Pollution Prevention and Promotion of Environmental Stewardship by Government and the Public

Pollution Prevention

A&B) Current State/Major Problems to be Addressed:

There are a significant number of public lands and federal facilities in Region 8. The Region has a formal partnership with the National Park Service Inter-mountain Region and with the USDA Forest Service to provide environmental compliance and pollution prevention technical assistance.

Under this partnership the Pollution Prevention Team has developed tools, training and technical assistance to help National Parks and National Forests eliminate environmental risks through pollution prevention and environmental management plans. Significant efforts are being directed to expanding the partnership approach to other land management agencies in Region 8.

Other federal facilities, including Department of Defense installations and Veterans Health Administration hospitals, are also widely distributed across Region 8. These facilities exhibit varying degrees of need for environmental compliance and pollution prevention technical assistance.

The decentralized organization and wide dispersal of these federal facilities limits the amount of technical assistance that can be offered to the facilities. The Pollution Prevention Team receives many requests for on-site assistance, and must find more effective ways to provide this help.

C) Regional Strategies/Approaches/Tools:

The regional pollution prevention strategy is to focus on tools, training and technical assistance identified by the customer agency. These tools include the OECA Environmental Management Review (EMR) policy, various models of environmental management systems (e.g., the ISO 14001 EMS standard) and the EPA Generic Protocol Phase III. This strategy aims to bridge gaps between federal, state and local agencies by expanding opportunities for them to work together in areas of common interest and need.

D) Primary Measures of Progress:

Success will be measured by the number of facilities that implement an Environmental Management System with EPA's assistance. Other measures include the number of facilities that are hazardous waste-free, develop pollution prevention programs, use green chemicals and institute a hazardous materials communication plan with EPA assistance. The ultimate goal of these activities is to produce results that can be expressed in terms of pounds of pollutants reduced, gallons of water saved, BTUs of energy conserved and dollars saved through prevention and environmental stewardship.

National Environmental Policy Act (NEPA)

A&B) Current Conditions /Regional Trends and Challenges:

Region 8 has a high level of activity on proposed actions by federal agencies within the region. The majority of NEPA projects are from the Forest Service, Bureau of Land Management and the Federal Highway Administration. EPA also has its own NEPA actions, primarily for special appropriation grants.

The Region is experiencing a major drought which has led to more frequent and intense forest fires, and an increase in proposed water diversion and storage projects. In response to several bad fire seasons, federal land managers have been developing many NEPA projects to salvage timber or reduce fire risk. The Region is also in the midst of a major energy boom with many new projects for oil and gas, coal and coal bed methane. Additionally, there are several high-growth areas in the Region generating new highway and other infrastructure projects. EPA Region 8

interfaces with other federal agencies and promotes environmental stewardship and pollution prevention through the NEPA process. The NEPA process provides an early opportunity for EPA Region 8 to review federal actions which could have an effect on the environment. Region 8's NEPA responsibilities are particularly important considering the rapid state of development of oil, natural gas, coal, power plants and refineries in the Region. These trends have increased the workload for the Region's NEPA staff.

C) Regional Strategies/Approaches/Tools:

Given the vast energy resources (oil, natural gas, coal, power plants and refineries) in the Region and the rapid development of these resources, the NEPA program will participate actively in the development, review and analysis of the large number of significant energy development projects. The review of these projects affords the Region an opportunity to analyze and disclose the environmental impacts from energy resource development and to work with the lead agencies and state governments in the mitigation of those impacts. The early review and mitigation of energy-related projects is a high priority within the Region 8 NEPA program and consistent with overall regional priorities.

D) Primary Measures of Progress:

The Region follows the Headquarters program which measures the resolution issues for air, water, waste, habitat, etc. and the reduction of impacts through the NEPA process. NEPA strategic targets are: 70 percent of significant impacts identified by EPA in its Draft Environmental Impact statement review are successfully mitigated, and 80 percent of EPA projects subject to NEPA results in a finding of no significant environmental impact. Another important goal is to increase and strengthen tribal capacity to participate in the NEPA process through training and consultation with tribes. Increase actions of tribal governments participating as a cooperating agency where a project may impact Indian Country.

Sub-objective 5.2.2: Pollution Prevention and Promotion of Environmental Stewardship by Industry

A&B) Current State/Major Problems to be Addressed:

Tribal environmental programs are just beginning to focus on pollution prevention strategies. Many do not yet have the infrastructure to focus on pollution prevention efforts. Likewise, many of the state pollution prevention programs are small. Funding for state and tribal pollution prevention programs remains a challenge.

States have extensive direct contact with industry and therefore are in an excellent position to provide pollution prevention assistance. Pollution prevention grant dollars are targeted at state and tribal technical assistance programs that address the reduction or elimination of pollution across all environmental media: air, land and water. The Pollution prevention grant program meets the changing needs and priorities of state environmental programs.

C) Regional Strategies/Approaches/Tools:

The goal of EPA's pollution prevention grant program is to help states and tribes assist

businesses, industries and agricultural interests in identifying better environmental strategies and solutions for reducing waste at the source. Programs should reflect comprehensive and coordinated pollution prevention planning and implementation efforts for states and tribes. These efforts are augmented through partnerships and technical assistance programs.

Region 8 also promotes achievement of Sub-objective 5.2.2 through its core programs in waste management and pollution prevention and through active participation in the Resource Conservation Challenge (RCC). The Region is actively involved in six of the major focus areas or Clusters in the national RCC effort, including: targeted chemicals reduction, construction and demolition, electronics, tires, hospitals and green buildings. We are forming a Region 8 RCC Steering Committee to guide in significantly contributing to the national RCC Goals. The Steering Committee will document, recognize and promote efforts in Region 8 to fulfill national RCC goals within a well-defined communication structure. Its aim is to plan and implement activities supporting Sub-objective 5.2.2 across programs and in collaboration with Region 8 stakeholders and partners.

D) Primary Measures of Progress:

The primary measures of progress of pollution prevention activities include performance results reported by grantees GranTrac Report, case studies, EMS documents and published success stories.

Where data are available, the ultimate expression of the success of these activities can be measured in terms of pounds of pollutants reduced, gallons of water saved, BTUs of energy conserved and dollars saved through pollution prevention and environmental stewardship by industry and agriculture.

Sub-objective 5.2.3: Business and Community Innovation

A&B) Current State/Major Problems to be Addressed:

Recruitment for the National Performance Track Program: The Agency's voluntary National Performance Track program was originally designed to recruit industrial facilities. To date, Region 8 has signed 12 facilities to participate in the Performance Track program, one of which is a federal agency. Because of the number of federal land management agencies located within Region 8 and their commitment to implementing environmental management systems (EMS), Region 8 staff have been focusing their attention on the National Park Service (NPS) Intermountain Region and the USDA Forest Service to provide technical assistance with the implementation of EMSs in their facilities which would make them eligible to apply for the Agency's Performance Track program.

Regional participation in the Sector Strategies Program: The Agency's Sector Strategies program has identified 12 manufacturing and service sectors for the Agency to assess opportunities to improve environmental performance while reducing regulatory burdens. Of the sectors the Agency has selected, Region 8 has developed projects or relationships with the following sectors: agriculture, construction, forest products, colleges and universities and metal finishers. The Region

will work with Headquarters to share information and recruit participants for the pilot projects.

C) Regional Strategies/Approaches/Tools:

National Performance Track Program**:** Region 8 will recruit both federal and industrial facilities for the voluntary Performance Track program to receive the benefits of low priority for inspection, recognition as an environmental leader for going beyond compliance, meet with senior EPA managers and participate in annual recognition with the Administrator in Washington, D.C. Region 8 will plan and facilitate an annual regional recognition event with senior leadership.

Sector Strategies Program: Region 8 will participate in the Sectors Strategies program, with members of the agriculture, construction, forest products, colleges and universities and metal finishing sector. Participation will include identification of a regional contact person, providing technical assistance, promoting tools like Environmental Management System (EMS) templates and encouraging participation in national pilot projects where applicable.

D) Primary Measures of Progress:

- The number of federal facilities implementing an Environmental Management System
- The number of federal and industrial facilities accepted into the Agency's Performance Track program
- The number of facilities participating in the regional and national recognition events.

Sub-objective 5.2.4: Environmental Policy Innovation

A&B) Current State/Major Problems to be Addressed:

Region 8 and its partners have several projects underway to demonstrate how innovative approaches can save time and money, both for government and industry, while achieving equivalent or better environmental results. These projects include:

- Developing and implementing a trading framework to reduce selenium levels in the Lower Colorado River
- Using a multi-stakeholder approach to improve air quality in a low-income Denver neighborhood
- Providing resources for the development of supplemental environmental projects to increase the effectiveness and environmental outcomes of these projects
- Demonstrating the use of in-vessel technology to compost food waste from a university campus
- Informing tribes and rural governments of innovative technologies to address infrastructure needs
- Modifying the UIC permitting process to save time and resources for government and regulated facilities
- Working with the State of Colorado to develop a permitting system that encourages continual improvement through environmental management systems in industrial and agricultural operations.

While some state and local agencies in the Region are proactively seeking innovative approaches, others may be less inclined. Some projects require a great deal of coordination within and between

agencies and will require these agencies to consider changing the fundamental way we do business.

C) Regional Strategies/Approaches/Tools:

Region 8 will provide funding and technical assistance for projects that support the goals of the Innovations Strategy. We will work with governments, organizations, businesses and sectors that have the greatest interest in partnering with us and the greatest potential for environmental improvement. We will use incentive based approaches, promote the development of environmental management systems and work collectively with stakeholders to demonstrate innovative approaches.

D) Primary Measures of Progress:

From the projects that we fund and provide technical assistance to, Region 8 will measure how the innovative approach provides greater benefit to the environment and saves time and money, both for government and industry. Using the innovations catalog developed by Headquarters, we will measure progress by the number of innovative projects conducted in Region 8.

Objective 5.3: Build Tribal Capacity

A&B) Current State/Major Problems to be Addressed:

Region 8 works with 27 tribes located on 26 reservations. The total land area of those reservations is 42,697 square miles, an area exceeding that of the State of Tennessee. The tribes and Region 8 are working to address numerous environmental needs including: impacts of past energy development on reservations; potential conflicts between the benefits of tribal economic development and of resource extraction versus traditional tribal commitment to honoring and preserving the environment; impacts on water quality from mining and agriculture; failing infrastructure impacting the safety of drinking water supplies and effectiveness of waste water treatment systems; inadequate solid waste management; protecting relatively high quality environments from degradation caused by off-reservation sources; and, finding or developing methods to clean up public and private buildings with lead paint, asbestos and PCB contamination. Adding even more complexity to these issues is the potential for adverse litigation that could lead to diminishment of tribal lands or infringement of tribal sovereignty.

Most of the Region 8 tribal environmental programs are in the early development stages. The General Assistance Program (GAP) supports development of tribal environmental programs, but does not provide a mechanism for long-term implementation. Region 8 retains the responsibility for directly implementing every federal environmental program on all 26 reservations. With reservations spread to the far corners of Region 8, far away from any regional transportation hubs, we can offer only limited on-site technical assistance.

Most tribes do not have a sound economic base, and income levels are very low. Tribes are unable to financially support their developing environmental programs, and grant funds available through EPA are often restricted by statutory requirements. Inadequate funding levels are mostly responsible for high turnover rates within tribal environmental programs, and are also a factor in

limiting tribes' ability to attract highly qualified candidates to work in tribal programs. A stable national funding base for tribal programs is needed.

C) Regional Strategies/Approaches/Tools:

Region 8 joins with other regions and headquarters offices to seek stable national funding to support the developing tribal programs.

Region 8 and several tribes together maintain a strong presence in the national tribal program, actively participating in the Tribal Operations Committee (TOC) meetings with the Administrator. The TOC is currently assessing national budget needs, working on development of the new National Strategic Plan and defining creative means to enhance tribal capabilities while seeking to ensure protection of human health and the environment in Indian Country. The Deputy Regional Administrator has been one of the strongest proponents among EPA senior managers for directing the growth of the tribal program nationally. His presence and strong commitment helps raise awareness of tribal issues, especially among his peers in Headquarters and other regions.

Various programs in the Region work actively with tribes, and a monthly call is held with the Tribal Environmental Directors to discuss plans and accomplishments. Increased frequency of communication with tribal leaders was initiated by the Regional Administrator in the form of a Tribal Leaders Summit and Legal Roundtable, plus an occasional newsletter. A planned new communication tool is an annual report on the issues faced and successes achieved by the tribes and EPA Region 8. Personnel details from tribes to EPA, and from EPA to another federal agency, have occurred. The potential for tribes to share contract help is being explored.

A Memorandum of Understanding (MOU 2000) among 16 federal agencies (with 32 signatures) was reached on January 18, 2000 and is being implemented within Region 8 to bring a combined focus on projects of special priority to tribes. "MOU 2000" is unique nationally, and has been used to address such matters as destroying long-buried dynamite caches, creatively pooling resources to extend water lines to homes that had naturally-occurring high arsenic levels in their wells, and enhancing emergency response capability for a tribal community. Other successful efforts to leverage resources with other agencies are built on potential Supplemental Environmental Projects related to various enforcement actions.

The Region and various tribes are using the Congressionally authorized Direct Implementation Tribal Cooperative Agreement (DITCA) authority to increase effectiveness in Indian Country. Through these agreements, EPA and tribes can develop work plans to implement portions of EPA direct implementation programs through use of qualified tribal employees. Region 8 is committed to the successful use of DITCAs to develop tribal environmental capacity and improve the Indian Country environment.

Tribes are encouraged to prepare program plans, sometimes to be incorporated into formal Tribal EPA Agreements (TEAs) or Environmental Management Plans, to aide in their program development. Training and technical assistance is provided for tribal staff.

Also, a financial technical assistance contract has been developed to conduct independent reviews of tribal finance departments to assess adequacy of tribal financial procedures and provide necessary training.

D) Primary Measures of Progress:

It is important to note that all measures within the Strategic Plan are relevant, particularly where programmatic measures indicate the degree to which public health and environmental protection is achieved. We recommend that a parallel measure be included in the Agency Strategic Plan, specific to Indian Country, so that the Agency can track effectiveness and progress of each program. Elements to include are measures that can capture the following:

- The extent of tribal and EPA presence in Indian Country to address environmental issues
- Increases in monitoring and assessments
- Increase the number of tribes with environmental monitoring and assessment activities under EPA-approved quality assurance procedures
- Increases in the stability and level of funding for both tribal programs and EPA's direct implementation capabilities
- The number of programs delegated to tribes
- The number of DITCAs implemented with tribes
- Increased training opportunities for tribal financial departments
- Increased communications with tribal leaders such as an occasional newsletter, an annual report and reinstating the Tribal Leaders Summit and Legal Roundtable
- Continued emphasis on building strong relationships with tribal environmental programs using a combination of methods such as:
    - the Regional Tribal Operations Committee,
    - Annual or biannual EPA/Tribal program-specific coordination meetings,
    - developing project specific EPA/Tribal work teams
- Enhancing interagency/tribal communication networks developed under MOU 2000 or similar agreements
- Eliminate data gaps for environmental conditions for major EPA water, land and air programs
- Disseminate education and training to businesses in Indian Country
- Increase the quality of information available to assess conditions in and affecting Indian Country by working in partnership with tribes
- Work with the Tribal Science Council in their efforts to develop options for new risk models that are based upon culturally appropriate research to better understand the needs of tribal communities.

Section 3: Cross-Goal Strategies

Introduction

Region 8 manages several cross-goal programs that are the important means by which all regional goals and objectives are met. They serve the Region by providing support needed to make decisions regarding science, information management, technology, resources and the deployment of these tools to carry out our mission. Each regional goal uses science, information, technology, staffing and dollars as a means to accomplish current and future program goals.

This section highlights a few of these cross-cutting strategies: human capital, information, science and environmental management systems and homeland security. Through these strategies, Region 8 will provide critical support capabilities that will: 1) enhance partnering; 2) provide and maintain new technological changes and systems; 3) help acquire and retain needed skills and knowledge; 4) help manage a growing volume of data; 5) ensure the effective and efficient management of our budget; and 6) reduce EPA Region 8's impact on the environment.

Human Capital

Region 8 will implement several human capital projects that will support the Agency's goals. We will measure our performance and communicate how our results contribute to the Agency's goals and objectives. We will also ensure that continuous improvements are undertaken.

Region 8 has a strong focus on the recruitment, retention and development of our staff. We are proud to have been recently selected by the Partnership for Public Service as the "4th Best Place to Work in the Federal Government." The programs that we have put in place to get us there are the areas of focus for our Human Capital Strategic Plan.

Region 8 plans to formalize the Regional Human Capital Strategic Plan. The plan will document short and long range efforts in accomplishing each of the five Human Capital goals outlined in the Agency's Strategic Plan.

We will continue to utilize tools such as 360 degree feedback to supervisors, along with facilitated feedback meetings and coaching and/or an update of our Employee Survey. To make certain that we are most effective at our mission, we must continue to seek feedback on our effectiveness, and adjust our organizational behavior as needed. Feedback is critical in any organizational system to ensure that management is "keeping its ear to the ground", and making those necessary shifts to perform at an optimal level. To help our managers continue their development and to maximize their effectiveness, we will provide coaching services.

With retirements and other transitions continuing, EPA Region 8 senior managers will assess vacant positions and organizational structures to ensure they support the Agency's strategic goals. We will continue our development of managers and staff to take on new and more challenging assignments. Region 8 will continue our strong leadership development program, to prepare for

succession, and to encourage leadership qualities so that every employee performs to their highest potential and routinely practices teamwork and collaboration. We will continue to plan for management and technical staff transitions through creative efforts such as backfilling vacancies of known retirees in advance to allow for intensive training, developmental details, rotational assignments and use of intern programs to ensure the employees have the competencies needed now and in the future.

Region 8 expects our efforts over the past year to develop a recruitment strategy will yield results during this year, and have established a followup effort to address retention issues. Each ARA/Office Director must submit a plan for the fiscal year beginning in FY04, describing what specific activities will be undertaken to increase diversity in Region 8 and report on specific accomplishments.

Success will be measured through the indicators in our feedback sources: 360 degree feedback for supervisors, employee surveys, developmental opportunities and increased diversity in both the general workforce and management positions.

Information Management

The Region 8 Information Management program has four key strategies to leverage environmental and administrative information to achieve the EPA Region 8 mission:

1. Maintain fast reliable IT infrastructure and communications
2. Deliver integrated administrative systems and environmental data to desktops
3. Maintain data partnerships with states and tribes to assure high quality data
4. Provide public access to environmental information.

Region 8 has made great strides in maintaining a fast, reliable computer Local Area Network (LAN) and desktop PCS that provide email, internet, office software and more. We will ensure continued improvements in FY04 through additional upgrades or replacements in hardware and software, acquiring more secure means for full-feature remote access, expanding our Storage Area network (SAN) capacity and researching emerging technologies.

Region 8 will continue to deliver integrated administrative systems and environmental data to employee desktops to maintain employee access to systems and data needed to carry out their work. We will identify hardware and software requirements for electronic records and document management in support of establishing a centralized regional records center. We will deploy automated scheduling for Region 8 Conference Center and implement EPA's new electronic Correspondence Management System (CMS). We will deliver Geographic Information Systems (GIS) to the desktop, and conduct outreach to programs to utilize GIS and deploy E-Docket. Focus will continue to be placed on improving Continuity of Operations and Emergency Response data access by deploying a Region 8 "situation room" in the new Regional Response Center (RRC).

Region 8 will maintain data partnerships with states and tribes to assure high quality data are

available. We will support the continued use of the National Environmental Information Exchange Network (NEIEN) grant program. Additional baseline visits for Region 8 states and tribes will be conducted in FY04. Our goal for FY04 is to encourage grant applicants to consider various data flows including: Air Quality System (AQS); Facility Registry System (FRS); National Emissions Inventory (NEI); Resource Conservation and Recovery Act Information System (RCRAInfo); Safe Drinking Water Information System (SDWIS); and Toxics Release Inventory System (TRIS). Our goal for FY05 will focus on Integrated Compliance Information System - National Pollutant Discharge Elimination System (ICIS-NPDES); and Storage and Retrieval for Water Quality Data (STORET). Our performance measure will be the successful exchange of data on the Exchange Network. The states and tribes will then develop and sign a Trading Partnership Agreement (TPA) with the Region.

Region 8 will provide public access to environmental information through continued use of our Environmental Information Service Center (EISC) and Technical Library and our website.

Science

Regional Science Coordination and Oversight

EPA Region 8's Regional Science Liaison (RSL) provides input into EPA's Office of Research and Development (ORD) plans on high-priority, cross-regional research needs. The RSL also communicates science to the Region, states and tribes from research results obtained from programs such as the Regional Applied Research Effort (RARE), Regional Methods Initiative (RM), Science to Achieve Results (STAR) and Small Business Innovative Research (SBIR). The Regional Applied Research Effort and Regional Methods Initiative are two mechanisms used by ORD to respond to the high-priority, near term needs of EPA Region 8. The STAR program funds research grants and graduate fellowships in numerous science and engineering disciplines. The Small Business Innovative Research (SBIR) program provides opportunities for small businesses to respond to longer term needs of the Agency .

During the past year, Region 8's Science Liaison developed a partnership with ORD's Small Business Innovative Research (SBIR) program by incorporating the priority science needs of the Region's programs with those in ORD. This effort lead to the creation of special solicitation topics for SBIR. These topics included: coal bed methane, chronic wasting disease, concentrated animal feeding operations, mining and non-road engines, all of which are critical issues in Region 8. The Regional Science Liaison coordinated the Region's involvement in a small business workshop held in Golden, Colorado and the relevancy review of the project proposals. The Regional Science Liaison will continue to track progress of these projects and will host an environmental research seminar in which STAR grantees can share research results with regional staff, states and tribes.

Our goal for FY04 is to more thoroughly evaluate all ORD grants to assess the status and outcomes. Our objectives includes ensuring the effective transfer of the knowledge gained from research, grants, fellowships and partnerships in the science area in order to extend the science benefits broadly. We will follow up to ensure that our Region 8 customers receive the information derived from the Agency's research and development efforts. Through workshops and other

communications, we will improve our customers' knowledge, understanding and use of the results obtained from Agency funded research. We will also identify new opportunities for our customers, including states, tribes, the public, academic institutions and students to directly participate in our research work.

Region 8 Lab

The EPA Region 8 lab provides valuable support to regional programs in areas of analytical chemistry, microbiology, macroinvertebrate analysis, biological toxicity testing, laboratory audits and field data collection. The lab supports multiple program areas all across the Region. This past year the lab has increased in sample analysis work load by 400 percent. Additionally, new capabilities for toxicity testing and macroinvertebrate sampling and analysis have begun to be utilized by the Region. In 2003, lab services were opened up to state programs who needed support they could not afford due to budget constraints.

Over the next few years, the lab will be faced with the challenges of prioritizing work for the regional office and maintaining high quality work while improving productivity and efficiency. Operational efficiencies will continually be explored for cost savings. A regional planning effort for laboratory services will be held in 2004 to more clearly define the lab's role and specific needs of the programs. A Region-wide field support team will be formed which will leverage the laboratory's strengths in field sampling and data collection.

Homeland security and the development of a regional lab network will continue to receive emphasis in future years to prepare for lab support during catastrophic events. Critical capability gaps will be identified and raised to management in Region 8 and Headquarters. On-going discussions and visits with state and private labs will continue to build stronger working relationships and to identify ways to support each other during emergencies.

Environmental Management System

EPA Region 8 began development of an environmental management system (EMS) for our regional office, regional laboratory and Montana office in October, 2001, with the formation of an EMS team and selection of two members of the Senior Leadership Team (SLT) as "EMS Champions." The team developed the Region's Guiding Principles and adopted the ISO 14001 Standard as the framework for the EMS. The team also implemented most of the steps of the planning phase of EMS development.

In September, 2003, management decided that a full-time EMS Leader should be detailed to guide and coach the Region, and work on implementation, corrective action, EMS review, top management review and external self-declaration phases of the EMS. The EMS Leader will be working with the team, regional staff, contractors and management to finalize our facility EMS and then look at next steps based on our environmental work.

Success will be measured by the following: internal and external EPA decisions that consider and minimize environmental impacts, full compliance with all EMS and ISO 14001 standard requirements, and an external stakeholder process that allows for changes based on feedback.

Homeland Security

Programmatic prevention and readiness activities are described throughout Section 2 of this plan. Some of these activities and programs include the Region's Core Emergency Response program, Area Contingency Plans and the Regional Incident Coordination Team, all of which aim to integrate prevention, preparedness and response activities to minimize risks from accidental or intentional releases. In addition, we devote considerable time to maintaining and testing our continuity of operations plan (COOP). In the event of an incident interrupting normal operations, the COOP is designed to reestablish critical services in an orderly and timely manner. The plan is a broad outline of the critical steps to be taken and would be applied dependent on the appropriate response to a specific incident.

During 2003, Region 8 tested our "call down" employee notification process multiple times and also completed two COOP relocation drills. These drills involved different emergency scenarios in which senior managers determined that a relocation to our alternate COOP site was necessary and then tested our ability to operate from the alternate site. Critical personnel were deployed to the alternate site to perform their functions under the different scenarios. Observers provided feedback on ways to improve our COOP. We will continue these unannounced drills on a regular basis, as well as provide annual refresher training to COOP team members.

In addition, we have over one hundred volunteers for the Region 8 response support corps, and plan training and exercises so that key staffing can understand and implement their responsibilities. These ongoing actions are necessary in order to maintain skills and readiness for any situation that may arise.

Section 4: Regional Accountability System

In FY 2004, Region 8 will adopt an accountability process to determine progress toward meeting the goals and objectives of our unique regional priorities. We will rely on the established performance standards of the national reporting system for assessing the progress of our core programs. This will be supplemented as necessary with specific performance measures for our unique regional priorities. The process will include development of accountability measures and environmental indicators to reflect progress in meeting long-term goals and objectives; regular progress meetings with senior level managers and program directors; and an annual report on accomplishments toward meeting accountability measures and environmental indicators.

Assuring Accountability for Delegated Programs

Region 8 is working with multiple systems to ensure accountability. Two enforcement systems currently in use include the Uniform Enforcement Oversight System (UEOS, Region 8 developed) and the Use of Performance Measurement Data as a Management Tool (OECA developed). Another system is the state Performance Partnership Agreements (PPAs). The use of PPAs requires cooperative planning, review and feedback between the EPA and states.

In place since 1998**,** the UEOS has been recognized by the EPA Inspector General as a "Best Practice" in the area of state agency oversight (IG Report No. 2001-P-00013). Based on the results of formal program reviews, findings in preparing the joint end-of-year PPA report, and the annual UEOS evaluation, program-specific oversight plans are developed which describe baseline, targeted and enhanced oversight activities for the next year. Evaluation findings and planned oversight activities are discussed with the states during formal (e.g., mid-year meetings) and informal meetings, as well as during the joint preparation of the PPA end-of-year report. Resultant oversight activities and related work sharing, technical assistance, etc. are incorporated into PPA/SEAs. The annual PPA end-of-year review, which incorporates formal reviews conducted *during* the year evaluated, is the primary mechanism used to ensure that PPA/SEA commitments are being met and for ensuring the appropriate follow-up actions and oversight occurs. Less formal activities such as periodic meetings, phone calls, etc. are also used to monitor implementation of PPA/SEA commitments. Failure to address commitments may be responded to in a variety of ways. Examples of follow-up would include enhanced and more senior EPA-state discussions, targeted or enhanced oversight, work sharing, training and technical assistance. In especially serious instances, withholding state money or authorization for new rules may occur while a more comprehensive evaluation of the underlying problems may result.

The use of performance measurement data as a management tool shows how the Agency can use performance data to increase the effectiveness of strategies, programs and activities, as well as measure program integrity and accountability. By reviewing and analyzing performance measurement data, potential areas of concern can be identified. Follow-up discussions with EPA and states can identify the cause of potential problems and what can be done to address it now and in the future. Analysis of measurement data can be used to identify gaps and allow for more information to be collected to fill those gaps. In order to most effectively use program data as

measurements of performance, we will emphasize timely data entry and consistent information management. EPA and the states must adhere to deadlines established for data base entry and quality control so that assessment of past year performance can be done immediately following the end of that year.

In addition to the UEOS, the Region continues to work through PPAs to develop and refine indicators of state performance that reflect programmatic impacts on human health and environmental conditions. The Region is working with states on improving these metrics, including Core Performance Measures, so that they may inform decision-making and improve our ability to communicate about results.

During FY 2004, Region 8 will use the lessons learned from the UEOS and performance measurement tools to develop and implement oversight and accountability systems for all environmental programs. EPA will continue to work with states on the refinement and development of environmental indicators and measures for all delegated programs, particularly through the PPA process.

Section 5: State and Tribal Partnerships

The Partnership Concept

Successful partnerships with our states and tribes are essential to the Region's efforts in protecting human health and safeguarding the natural environment. EPA Region 8 and our states and tribes continue to refine joint roles and responsibilities for delivering environmental services. Issues surrounding accountability of one level of government to another have been the focus of many discussions. Multi-level partnerships also exist with other federal agencies, local governments, non-governmental organizations, industry groups and many others.

The partnership concept recognizes that each partner brings unique experience, capabilities, knowledge and resources to the table and that environmental issues can be effectively addressed by maximizing these assets. The partners recognize the unparalleled opportunity for various levels of government to address common goals with a common vision with each level of government being accountable to the others. Each partner being responsible and accountable to the others entails a new way of thinking and a commitment to mutual success. Generally speaking, the partnership representatives jointly develop guidelines, vision statements, values and operating principles, which guide business operations when applying the partnership concept.

Partnership Development: Joint Goals and Priorities

As noted in Section 1, the Region has identified five priorities for FY04: energy, agriculture, direct implementation, revitalization and homeland security. Each state and tribe has identified its priorities as well which may include some of the same ones as the Region.

Region 8 priorities are the result of consultation with our state and tribal partners. The current list of priorities has evolved since their introduction as a draft in the spring of 2003. They were discussed in joint meetings with environmental and agriculture commissioners, and in planning meetings in each state. Each state and tribe agreed to work with the Region (as appropriate) to address specific concerns and achieve priority objectives. With input from our partners, the Region has also been developing priority-specific strategies as a way to make environmental progress.

The Region has both Performance Partnership Agreements (PPAs) and Performance Partnership Grants (PPGs) with every state in Region 8 except for Wyoming, which operates with the State EPA Agreement (SEA). In all the Region 8 states, the Agreement serves as the work plan for the PPG. Consequently, the Regional Strategic Plan is linked to PPA/G planning, negotiation and evaluation cycles.

The Region 8 states and EPA have entered into the National Environmental Performance Partnership System (NEPPS) with the primary goal of delivering environmental services efficiently and effectively at the right level of government. Partnerships are one avenue undertaken to reach this goal. The Region 8 states and EPA have committed to reinforce the NEPPS through joint

strategic planning, fortifying existing partnerships, identifying new partnership opportunities and applying revisions to state/EPA planning processes with the intent of enhancing state participation.

Consequently, the Region 8 states and EPA have evolved the annual planning meeting from a meeting on program evaluation to a discussion of joint strategic goals which helps determine joint priorities. This approach enables both agencies to develop a better understanding of the other's unique needs and to focus jointly on cross-cutting environmental priorities to protect and improve the air, land and water resources in the Region 8 states. The meetings provide an opportunity for states to customize the priority list noted above by adding priorities of special interest – such as drought. Region 8's pending order on oversight will put additional emphasis on integrating program evaluation into the planning process with states.

State Discussion

The partnership between EPA Region 8 and states to provide environmental regulation and protection has, in general, matured and improved over the last decade. Techniques to achieve results, measure performance and improve efficiency are continually being tested and implemented. The characteristics of the EPA-state relationship and the business practices between EPA and states have steadily evolved since states began accepting primacy for laws and programs in the 1970s. Operationally, states conduct most of the work of the federally authorized programs while EPA oversees the work by the states and implements the non-authorized programs. However, oversight still occurs through both real-time review concurrent with state work and after-the-fact review of state actions.

It has been difficult to fully transition to long-term planning, results-based performance measurement, and promote flexibility and innovation without a fundamental change in the business operations vital to the EPA-state relationship. More importantly, it continues to be challenging for the states and EPA to address persistent budget shortfalls without substantial changes in business practices. Nevertheless, Region 8 works closely with state partners on the joint mission of protecting and improving environmental quality. The Region strives to maintain close working relationships with each of the states at all levels of the organization.

Using the single definitive agreement model being promoted by EPA and the Environmental Council of the States (ECOS), Region 8 is collaborating with states to advance a business relationship that reflects the natural progression in the EPA-state partnership. This approach builds on the elements of the ECOS/EPA model, and presents a simple idea that recognizes state primacy, state capacity and commitment to do good work, while also recognizing EPA's responsibility to provide effective oversight and directly carry out its environmental protection work for non-delegated programs.

In the coming year, we intend to emphasize environmental results and revitalize the Differential Oversight component of the *May 17, 1995 Joint Commitment to Reform Oversight and Create a National Environmental Performance System* by developing an accreditation system for state environmental programs demonstrating satisfactory performance. This system will be developed in

cooperation with the states, and will be piloted with selected programs in Utah and Colorado.

One very ambitious partnership project will be highlighted during 2004. The Utah DEQ, with the assistance of an ECOS grant, is leading a work group aimed at a closer alignment of State, Regional and EPA planning. The major programs in Region 8 are participating with the environmental departments of all six states on this project. The are two principal goals for the project. The first to develop a model for proactive state engagement in the Regional Plan that aligns with the existing regional PPA/PPG process and overall EPA goals. Expected products under this goal include:

- An assessment of how and when states currently convey their annual strategic priorities and establish joint strategic priorities with EPA Region 8 as part of the PPA/PPG process.
- An analysis of whether the existing PPA/PPG process aligns with EPA's timeline for the Regional Plan, NPM Guidance and the EPA Annual Plan and Budget and whether the existing strategic priority "sharing" process between the region and states is sufficient to provide states an opportunity for strategic input into these efforts.
- Development of a regional model for proactive state engagement in each of the EPA planning objectives.

The second goal of the project is to align measurements of environmental and programmatic success used by states and the Region within the NEPPS framework. Products under this goal will include:

- An assessment of how states currently implement and track work committed to in the PPA to support strategic priorities
- An analysis of whether or not the current processes used by states and the region to implement and track joint strategic priorities can be crafted into a regional model or if the individual flexibility in PPA approaches remains the preferred option.
- Development of a tracking system and assessment model to determine if state strategic priorities are reflected in the Regional Plan; the National Program Manager (NPM) Guidance; and the EPA Annual Plan and Budget.

A significant overarching issue for Region 8 state partners concerns resources and infrastructure. The most immediate concerns relate to state budget shortfalls caused by prolonged, difficult economic conditions. Other key concerns relate to information management needs and workforce issues. Region 8 is maintaining close contact with states to monitor the impacts of resource shortfalls on program implementation. The states have requested additional technical support and flexibility from Region 8 to help maximize the effective use of their resources. The workforce issue relates to the immediate and coming retirements of large segments of veteran technical staff and managers in the next few years. Some states have asked EPA to provide additional technical support and training to help bridge this gap. New capabilities in information technology are enabling organizations to become more productive, effective and proactive in service delivery. Taking full advantage of information technology will enable Region 8 and states to accomplish joint environmental missions more quickly and with fewer resources.

Water quality issues related to non-point source pollution represent another concern for Region

8 states. Low flows resulting from drought conditions during the last few years have made these problems more difficult to address. These issues will be a significant impediment to the implementation of TMDLs and attainment of water quality standards over the next several years. Region 8 supports the watershed approach to addressing water quality issues. The Region uses the 319 program and project grants and other available grant funds to help address these issues along with technical assistance.

Region 8 is examining enhanced decision-support tools to provide valuable environmental information in relation to watershed, airshed and ecosystem management (e.g., EMAP/REMAP applications). In addition, at least two states (Colorado and Utah) are working with Region 8 to consider new measures for environmental results in place of traditional activity or output measures. This work is closely associated with the release of the Draft National Report on the Environment.

State Involvement in Development of the Regional Strategic Plan

In spring of 2003, our state partners were briefed on the Regional Plan guidance and the proposed time frame for completion. After receiving the final guidance in October 2003, we completed our first draft of the plan and forwarded a copy to each of our states. States responded with extensive comments, all of which were considered by regional program staff for incorporation in the January 22nd draft of the plan. The State Assistance Program drafted a responsiveness summary and sent it to our six states along with the January 22nd draft of the plan, a deadline for final comments and a description of our next steps to finalize the plan. As part of the ECOS Pilot Project, EPA and states have continued discussions of the Regional Plan, particularly about regional and state priorities and the state role in the planning and budgeting process. Discussions during ECOS Pilot Project meetings have also emphasized early state involvement in the development of EPA's priority strategies.

Tribal Discussion

Region 8 works with 27 tribes located on 26 reservations. The total land area of those reservations is 42,697 square miles, an area exceeding that of the state of Tennessee.

The partnerships between EPA Region 8 and the 27 tribal governments in our geographic area are not as fully developed as those with the states. The establishment of tribal environmental programs began much later than the state programs, and environmental challenges and resources available to address them vary considerably.

Similar partnership values and principles exist for tribal relationships as with states, such as focusing activities at the local level and combining resources. Tribal sovereignty is an overarching factor, and is integral to national and Region 8 policies and guidance on the delivery of environmental programs in Indian Country. That sovereignty is sometimes challenged; EPA supports tribal interests as part of the federal government's trust responsibility.

Region 8 has developed partnerships with the tribes and many other federal agencies to

strengthen our effectiveness in Indian Country. A Memorandum of Understanding (MOU 2000) among 16 federal agencies was signed on January 18, 2000, and is being implemented to bring a combined focus on projects of special priority to tribes. "MOU 2000" is unique nationally, and has been used to address such matters as destroying long-buried dynamite caches, creatively pooling resources to extend water lines to homes with naturally-occurring high arsenic levels in wells, and working cooperatively to increase emergency response capability for a tribal community. Other successful efforts to leverage resources with other agencies are built on the Supplemental Environmental Project (SEP) potential of various enforcement actions. Region 8 actively pursues SEPs in Indian Country.

EPA's involvement with the Council of Energy Resource Tribes is an example of an important partnership effort aimed at achieving environmental results in our priority areas. On May 3 and 4, 2004, the Council of Energy Resource Tribes in conjunction with EPA will sponsor a workshop/training in Denver, Colorado for Tribal Energy issues. The two day learning workshop will partner the Tribes and EPA to develop an understanding of the issues and possibilities involved with energy development in Indian Country. A source book for the partnering and learning will be provided. Both renewable and non-renewable energy sources will be discussed. Topics will include technical assistance capabilities and needs, experiences and perspectives on specific energy projects, involvement of other federal, state and tribal agencies and organizations and continued partnering between the Tribes, EPA and other entities regarding energy development in Indian Country.

EPA's direct implementation of all environmental programs is essential in Indian Country, as few of the tribes in Region 8 have the full capacity to conduct a program. Concurrently, EPA assists tribes as they plan and develop various programs, and provides opportunities for them to conduct portions of programs as they develop capacity.

EPA's General Assistance Program (GAP) supports development of tribal environmental programs, but does not provide a mechanism for long-term implementation. Tribes are often unable to independently financially support their developing environmental programs, and grant funds available through EPA are often restricted by statutory requirements. Given that situation and the resource challenges faced by EPA, Region 8 continues to work with the tribes, other EPA regions and Headquarters to seek stable national funding to support tribal programs, and to increase the resources needed for EPA to conduct effective direct implementation responsibilities.

Region 8 and several tribes work in partnership to maintain a strong presence in the national tribal program, actively participating in the Tribal Operations Committee (TOC), which meets with the EPA Administrator. Region 8's Deputy Regional Administrator has been one of the strongest proponents among EPA senior managers for directing the growth of the tribal program nationally. His presence and strong commitment helps raise awareness of tribal issues, especially among his peers in Headquarters and other regions.

Many programs in Region 8 work actively with tribes. The Regional Operations Committee (ROC) meets quarterly, and holds monthly calls to discuss plans and accomplishments. Direct

communication with Tribal Leaders occurs in a Tribal Leaders Summit and Legal Roundtable, and via an occasional memo from the Regional Administrator. An annual report on the issues faced and successes achieved by the tribes and Region 8 is planned for this year as a way to improve communication about tribal issues.

The Region and various tribes are using the Congressionally authorized Direct Implementation Tribal Cooperative Agreement (DITCA) authority to increase effectiveness in Indian Country. Through these agreements, EPA and tribes can develop work plans to implement portions of EPA direct implementation programs through use of qualified tribal employees. Region 8 is committed to the successful use of DITCAs to develop tribal environmental capacity and improve the Indian Country Environment.

As tribes prepare program plans, they are sometimes incorporated into formal Tribal EPA Agreements (TEAs) or Environmental Management Plans, to aid in their program development.

It is important to note that nearly all measures within the National and Regional Strategic Plans are relevant to Indian Country, particularly where programmatic measures indicate the degree to which public health and environmental protection is achieved.

Tribal Involvement in the Regional Strategic Plan

In the spring of 2003, the Regional Operating Committee, a group that represents each of Region 8's 27 tribes, was briefed on the Regional Plan guidance and the proposed time frame for completion. After we received the final guidance in October, we completed our first draft of the plan and forwarded a copy to each of our tribes the first week in December. Our Tribal Assistance Program held a teleconference with available interested tribes to develop suggested changes to the draft. These suggested changes were considered by regional program staff for incorporation in the January 22nd draft of the Regional Plan. EPA's Tribal Assistance Program sent a comment-response summary to tribal representatives, a link to access to the Region's January 22 draft, a deadline for final comments and an outline of the next steps to finalize the plan. In March, EPA and tribes held a follow-up conference call to discuss EPA's response to comments and to allow an additional opportunity for tribes to offer comments. While developing its National Strategic Plan, EPA consulted with tribes across the country.

Glossary of Acronyms

ACP - Area Contingent Plans
AFO - Animal Feeding Operation
AQS - Air Quality System

BFEER - Blueprint for Enhanced Environmental Results
BRAC - Base Realignment and Closure

CAA - Clean Air Act
CAFO - Concentrated Animal Feeding Operation
CALM - Consolidated Assessment and Listing Methodology
CDC - Center for Disease Control and Prevention
CEH - Children's Environmental Health
CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act
CMS - Correspondence Management System
CO - carbon monoxide
CSA - Chemical Safety Awareness
CWA - Clean Water Act
CWSRF - Clean Water Act State Revolving Fund

DI - direct implementation
DITCA - Direct Implementation Tribal Cooperative Agreement
DOD - Department of Defense
DOE - Department of Energy

ECEJ - Enforcement, Compliance and Environmental Justice
EJ - environmental justice
EMAP - Environmental Monitoring and Assessment Program
EMR - Environmental Management Review
EMS - environmental management system
EDC - endocrine disrupting chemicals
EPA - Environmental Protection Agency
EPCRA - Emergency Planning and Community Right to Know Act
ESA - Endangered Species Act

FIFRA - Federal Insecticide Fungicide, Rodenticide Act
FOST - findings of suitability to transfer
FOSL - finding of suitability to lease
FRS - Facility Registry System
FTE - full time equivalent
FUD - formerly used defense

GAP - General Assistance Program
GIS - Geographic Information Systems
GPRA - Government Performance and Results Act
GRTS - Grant Reporting and Tracking System
IBI - Index of Biological Indicators
IC - Institution Control
ICIS - Integrated Compliance Information System
IE - indoor environment
IG - Inspector General

LAN - Local Area Network
LEPC - Local Emergency Planning Committee
LUST - Leaking Underground Storage Tanks

MACT - Maximum Available Control Technology
MIT - Mechanical Integrity Tests
MOA - Memorandum of Agreement
MS4 - Small Municipal Separate Storm Sewer Systems

NAAQS - National Ambient Air Quality Standards
NACD - National Association of Conservation Districts
NASDA - National Association of State Departments of Agriculture
NHANES - National Health and Nutrition Examination Survey
NEIEN - National Environmental Information Exchange Network
NEPA - National Environmental Policy Act
NESHAP - National Emission Standards for Hazardous Air Pollutants
NFA - No Further Action
No_x - nitrogen oxides
NPDES - National Pollution Discharge Elimination System
NPL - National Priorities List
NPS - National Park Service
NRCS - Natural Resources Conservation Service
NSR - New Source Review
NWI - National Wetlands Inventory

OECA - Office of Enforcement and Compliance Assistance
OEI - Office of Environmental Information
OPA - Oil Pollution Act
ORD - Office of Research & Development
ORIA - Office of Radiation and Indoor Air
OSC - On-Scene Coordinators
OSWER - Office of Solid Waste and Emergency Response

P2 - pollution prevention
PA/SI - preliminary assessment/site inspection
Pb - lead
PBTs - Persistent Bioaccumulative Toxics
PCBs - Polychlorinated Biphenyls
PEHSU - Pediatric Environmental Health Specialty Unit
PM - particulate matter
PPA - Performance Partnership Agreement
PPCP - pharmaceuticals and personal care products
PPG - Performance Partnership Grant
PRP - potentially responsible party
PSD - Prevention of Significant Deterioration
PWS - Public Water Systems

RARE - Regional Applied Research Effort
RBCA - Risk Based Corrective Action
RCC - Resource Conservation Challenge
RCRA - Resource Conservation and Recovery Act
REMAP - Regional Environmental Monitoring and Assessment Program
REPN - Regional Ecosystem Protection Network
RfR - Ready for Reuse
RICT - Regional Incident Coordination Team
RMP - Risk Management Facility
ROC - Regional Operations Committee
RPSU - Resource Protection and Stewardship Unit
RRC - Regional Response Center
RSL - Regional Science Liaison

SAN - Storage Area Network
SSO - Sanitary Sewer Overflow
SBIR - Small Business Innovative Research
SDWA - Safe Drinking Water Act
SEA - State EPA Agreement
SEE - Senior Environmental Employee
SEP - Supplemental Environmental Project
SERC - State Emergency Planning Committee
SIRG - State Indoor Radon Grant
SLT - Senior Leadership Team
SO_2 - sulfur dioxide
SOP - Standard Operating Procedures
SPCC - Spill Prevention, Control and Countermeasure
SPIM - Superfund/Oil Program Implementation Manual
SRF - State Revolving Fund

SSL - soil screening levels
START - Superfund Technical Assessment and Response Team
STORET - STOrage and RETrieval

TAS - Treatment as a State
TBA - Targeted Brownfields Assessments
TEA - Tribal EPA Agreement
TfS - Tools for Schools
TIWMS - Tribal Integrated Waste Management Systems
TMDL - Total Maximum Daily Load
TOC - Tribal Operations Committee
TPA - Trading Partnership Agreement
TRI - Toxic Release Inventory
TSCA - Toxic Substances Control Act
TSDF - Treatment, Storage and Disposal Facilities

UATMP - Urban Air Toxics Measuring program
UEOS - Uniform Enforcement Oversight System
UIC - Underground Injection Control
USFWS - United States Fish and Wildlife Service
UST - Underground Storage Tanks

WQS - Water Quality Standard
WRAP - Western Regional Air Partnership