

2004 Strategic Plan

U.S. Environmental Protection Agency

Region 4



April 2004

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Message from the Regional Administrator

I am pleased to submit the Final Region 4 Plan for Implementation of the Agency Strategic Plan. The Regional Plan provides environmental priorities for the Southeast and strategies the Region will use to address these priorities and meet the goals and objectives of the Agency Strategic Plan. The wealth of natural resources in the Southeast and unprecedented growth and economic development result in environmental challenges for the Region, its partners, stakeholders, and citizens. The Regional Plan provides an opportunity for us to identify future issues and to develop strategies to meet future needs while carrying out the Agency's mission of protecting human health and the environment.

The Region 4 Plan follows agency guidance for the regional plans with five primary sections, including an overview of what makes Region 4 unique, Regional strategies for meeting national goals and objectives, the regional approach to cross-cutting issues, a description of our accountability system and the final section describing major issues for our state/tribal partners. Under the section on cross-cutting initiatives in Chapter III, Region 4 included a discussion of place-based, contaminant-based, and sector-based priorities that are driving forces in the Southeast for environmental protection across the five goals.

The successful implementation of environmental protection programs in the Southeast has always involved strong partnerships with our states and tribes. Region 4 strongly supports joint planning and priority setting with its state and tribal partners. The Region 4 planning staff met with each of its 8 states prior to developing the Regional Plan to discuss the process and requested input on State priorities for inclusion in our plan. The Region sent an early draft to States and Tribes for comment and used those comments in revising the draft plan. Region 4 also presented the draft plan at a Region 4 Tribal Environmental Meeting and solicited tribal comments there. The Region was able to use this feedback in revising the plan, especially Chapter II, before the April 2003 submission date. Our states and tribes appreciated this early opportunity to provide input on regional strategies and priorities, especially in light of reduced state budgets across the Southeast. Our States and Tribes were given a second opportunity to comment on our plan in December of 2003 and January of 2004. We have made modifications to our plan to reflect comments received. We will use our Final Region 4 Strategic Plan as a springboard to develop closer cooperation with our States and Tribes on several issues including performance partnerships, priority setting, issue analysis, innovation projects and environmental accountability and indicator reporting.

Jimmy Palmer

EXECUTIVE SUMMARY

The eight states of Region 4 contain many natural features that distinguish us from all other Regions. We have highly diverse habitats and species, as well as, an abundance of rivers, wetlands, and coastlines. We also have a diverse and rapidly growing human population which brings with it stress on our environmental quality as well as expanded economic opportunity. We have an ever increasing demand for water, energy, and other natural resources. Our cities are expanding and consuming vast areas of greenspace and open land. Pesticides, mercury, agricultural wastes and urban development impair our streams and rivers. Despite 30 years of significant progress in several areas, the quality of our waterways, our air, our land and our human health continue to be threatened. The Region 4 Strategic Plan presents our strategy for addressing the 5 goals in the national EPA Strategic Plan as well as addressing unique Region 4 issues. Some major Region 4 priorities are summarized below.

Agriculture has long been a major source of non-point source pollution in Region 4. Most of our states list it as one of their key priority issues. Common pollutants from agriculture in Region 4 include sediments, pesticides and nutrients. One agricultural activity that is of growing concern related to the degradation of water quality are animal feeding operations. Concentrated Animal Feeding Operations (CAFOs) are considered a subset of animal feeding operations and have become an increasingly important environmental issue in the Southeast due to the rapid proliferation of very large operations in a short time. By 2006, the Region is projected to have 30% of the permitted CAFOs in the United States.

Mercury contamination, primarily in aquatic and marine ecosystems, has been shown to be a pervasive environmental problem throughout the southeast. Mercury is a persistent, bioaccumulative toxic (PBT) element that finds its way into water bodies, and eventually into aquatic and terrestrial food chains, largely through deposition from air emission sources. All eight states in Region 4 have issued some form of advisory based on mercury contamination in fish tissue. In all six states with coastal waters in Region 4, fish consumption advisories based on mercury have been issued for *all* coastal waters, for one or more species of game and/or commercial fish. In Kentucky, a state with no coastal waters, a state-wide mercury advisory has been issued, for all species, in all waters.

The emissions and releases from coal-fired power plants in Region 4 reflect national priorities and issues and, in addition, present challenges that are somewhat unique to Region 4, in part due to rapid growth in population in the eight Region 4 states. The emissions of NOX, SOX and greenhouse gases, while having regional and local impacts on air quality, are national priorities, and Region 4 's activities will reflect, and contribute to, national goals for these emissions. Fully 26% of the national electric power generating capacity of the continental United States lies within Region 4. A major unique challenge related to power generation in Region 4 concerns mercury contamination in aquatic and marine environments. Coal-fired power plants are a major contributor to mercury emissions in the southeast, thereby contributing to water quality, sediment quality and fish tissue contamination problems.

Rapid population growth throughout the Southeast has become a significant issue in Region 4. This growth and the associated changes in land use are creating newer, more complex multi-media environmental challenges. Region 4 is focusing on ways to provide resources, tools and assistance to communities that are struggling with overwhelming growth as well as those that are trying to attract growth in a positive manner. Air, water, and land issues related to this growth are rapidly becoming the top priorities not only at the State and local level, they are becoming priorities for our partner Federal Agencies and our own media programs. These issues include excess flooding and urban degradation from impervious surface runoff, ozone production from increases in vehicle miles traveled, and decreased species diversity from loss of open space.

These issues are discussed in more detail in the Cross-Goal Issues section of Chapter 3. The five goal sections of Chapter 2 also address these issues as well as all those addressed in the five goals in the national EPA Strategic Plan.

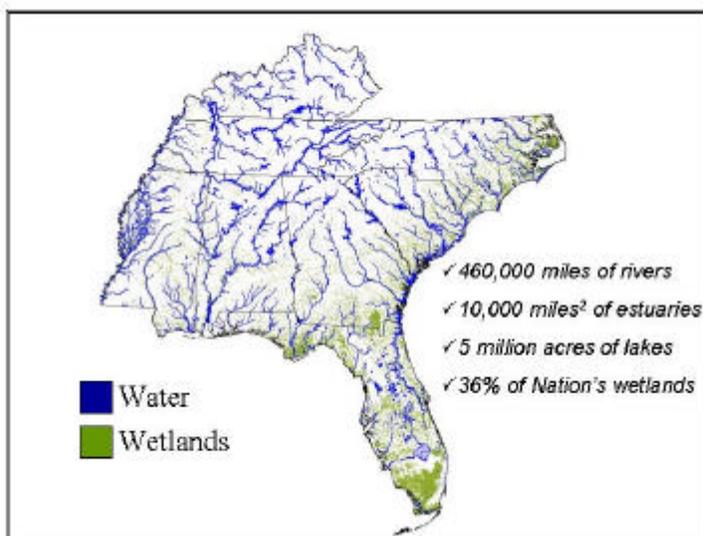
Chapter 1

What makes Region 4 unique?

The Region 4 Office of the U.S. Environmental Protection Agency, through collaborative partnerships with our stakeholders, works hard to protect human health and the environment and to ensure that everyone in the Southeast has clean air, pure water, and better-protected land. Made up of the eight Southeastern States: Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina and Tennessee, Region 4 contains features and challenges that distinguish us from the other nine Regions in the country. We have highly diverse habitats, species, and an abundance of rivers, wetlands and coastlines. We have a variety of human cultures.

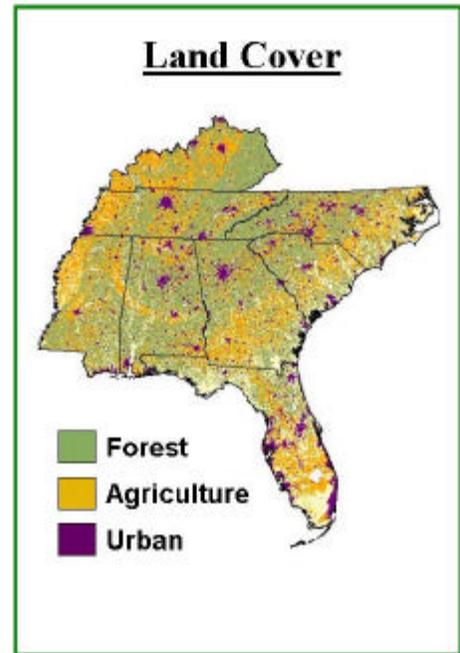
Unfortunately, along with these benefits there are growing troubles. We have a rapidly growing population. We have an ever-increasing demand for water, energy and other natural resources. Our cities are expanding, consuming vast areas of greenspace and natural habitat. Per capita, Region 4 people drive more miles than most other Regions. Pesticides, mercury, agricultural wastes and urban development impair our streams and rivers. In addition, we have the highest smoking and obesity rates in the nation. Despite our 30 plus years of progress, the quality of our waterways, our air, our land and our health remain threatened. In this Chapter, the distinctive characteristics and the current and future challenges of the Region will be explored in depth. The remaining Chapters present the Region's strategy to meet the 5 national goals and to address these unique Regional problems.

Pick up any travel guide for the United States and you will find that many of the country's most treasured locations reside in the Southeast. The blue-green grasses of Kentucky, the Gold Coast of the Gulf, the barrier reef off the Florida Keys, and the black-water swamps of the Okefenokee are just a few of these cherished features. Also found in Region 4 are the Appalachian Mountains that stretch across Northern Alabama, Eastern Tennessee, Western North Carolina, and Eastern Kentucky for a total of 37 million acres. Within this mountain chain lies five million acres of the Smoky Mountain National Park: the largest contiguous tract of public land in the eastern U.S. Traveling further south, in Florida, lay the Everglades, North America's only flooded grassland and the second largest wetland in the world.



There are many other reasons why this Region is unique. The Southeast also has a significant portion of the water resources found in the continental United States. We have one third of the wetlands, one third of the estuaries, and one third of the nation's coastline (over 2,000 miles). Moving inland, we have the elaborate river systems of the Mississippi, Ohio, Tennessee and Savannah River basins. These major rivers, when added to the Region's other river systems, total nearly 460,000 miles of waterways: the most miles for any Region in the country.

Farms and forests dominate the landscape of the Southeast. Region 4 has the highest number of farms, the highest income from farms and the fifth highest acreage of land in farms. The Southeast has the second highest total dollar value of agricultural chemical purchases and contains 20 percent of the country's pesticide-producing establishments. Forests cover 60 percent of the land, a significant increase since the early 1900s. However unlike the Western U.S., private individuals own 70 percent of the Southeast's forests. Only 10 percent of our forests are in the public domain. The remaining 20 percent are owned and managed by forest-products industries, including pulp and paper manufacturers.



Our abundant waterways and ecosystems support a diverse array of both aquatic and terrestrial animal species. According to the World Wildlife Fund, the Southeast contains some of the most diverse temperate freshwater ecosystems in the world. For example, the Tennessee-Cumberland River area has the most species of fresh-water fish, mussels and crawfish in North America. We are also home to 98 percent of the Nation's commercial marine-species while the Gulf of Mexico provides nearly 40 percent of the total U.S. commercial-fisheries yield. Beyond the water, we have nearly 290 species of amphibians and reptiles, more than anywhere north of Mexico on the American continent. We contain two major flyways for migrating birds, the Mississippi and the Atlantic, and our wetlands provide wintering habitat for more than 400,000 geese and 3 million ducks.

This diversity is not limited to just animals. From hardwood forests to cypress swamps, the Region contains a wealth of unique plant communities that are critical to overall ecosystem health. The Everglades alone contains 25 species of orchids, more than 1,000 species of seed-bearing plants and 120 species of trees. The Smoky Mountains National Park includes 1,500 flowering plants and more tree species than northern Europe.

The Region also has a unique and diverse human population. With over 50 million people now living in the Southeast, all cultures and ethnic backgrounds are represented. For example, African Americans constitute 36 percent and 29 percent, respectively, of Mississippi and South Carolina's populations. Additionally, Hispanic Latino Americans constitute 17 percent of Florida's population, well above the national average. When looking at American Indian populations, Region 4 is smaller than most other Regions of the country. In the Southeast, only six tribes remain contributing far less than 1 percent to the Region's population. North Carolina, however, is above the national average with

	Region 4	National
Total Population (2001)	54,157,671	264,796,687
White Persons	70%	75%
Black or African American Persons	20%	12%
American Indian or Alaska Native Persons	0.4%	0.9%
Asian Persons	1%	4%
Persons of Hispanic or Latino origin	2%	6%
Persons under 5 years old	8%	7%
Persons under 18 years old	23%	26%
Persons 65 years old and over	13%	12%
Persons below poverty (1999)	14%	12%
Land area (square miles)	369,249	3,537,438
Average # of persons per square mile	146.7	79.6

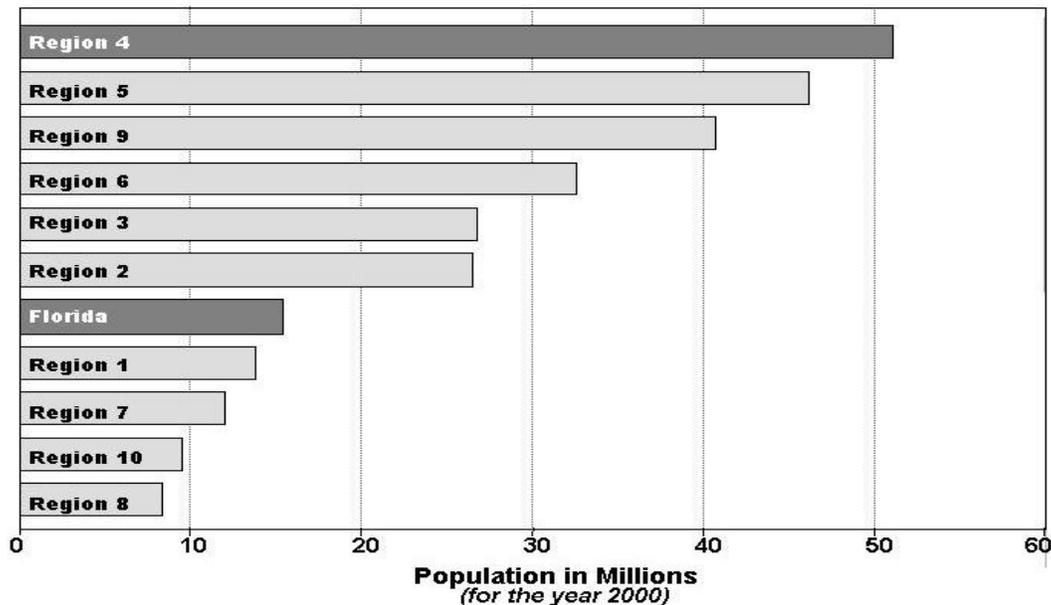
nearly 1.2 percent of their population being American Indian. Florida is also number one in the country for the percentage of people aged 65 years and over (18 percent) of any state in America. Regrettably, a significant portion of the Southeast's population, minority and non-minority, lives below the poverty level. With the exception of Georgia, all our states rank in the nation's top 20 for percentages of people below poverty. Mississippi ranks second with nearly 20% of its population below the poverty line.

For all its attributes, the Southeast is also home to some of the Nation's major environmental and natural-resources. Nearly 20 percent of the Nation's endangered ecosystems occur in the Southeast. Our aquatic and terrestrial ecosystems are threatened by changes in water quality and quantity, habitat degradation, landscape and watershed fragmentation, urban sprawl and exotic species. Over 90 percent of all documented species extinctions in the U.S. have been of aquatic species in the Southeast. Since European settlement, the Mobile River Basin in Alabama has been the site of nearly 50 percent of these extinctions. While rivers like the Clinch in Tennessee and the Altamaha in Georgia contain some of the highest numbers of rare and endangered plants and animals in the world, these two watersheds and many others like them are threatened by increasing development pressure. The Southeast has also lost millions of acres of critical terrestrial habitat. Almost 98 percent of our Longleaf Pine forests are gone, 78 percent of our bottomland hardwood forests have been reduced, and 15 percent of our barrier-island habitats are now urbanized.

Loss of habitat and species are not the only impacts being experienced in the Region. Stressors, like pollution and land-use changes, alter the ways in which we interact with and experience our environment. Recreational and commercial activities, such as fishing, swimming, hunting and bird watching, are being significantly impacted. Fish advisories and beach closings are happening across the Region due to increased water pollution. Other places are being threatened by increased air pollution. In the Great Smoky Mountains National Park, visibility, on even the best days, has steadily decreased since 1995. Meanwhile, as urban-green-space disappears, more and more people are seeking out other remaining parks and wilderness areas. Places once valued as retreats and escapes have become degraded by overuse and carelessness.

Habitat loss in the Southeast dates from colonial times, and accelerated in the 1800's when forests were harvested and converted to agricultural areas for the production of tobacco, cotton and produce. As economic demands for these crops changed in the early 1900s, many farms were allowed to return to a natural habitat. Today, agricultural areas are converted into subdivisions and shopping centers. Both agricultural areas and forests alike are threatened by a new set of problems, population growth and sprawling cities. The Southeast's diverse natural resources, its moderate climate and booming economy have attracted millions of new residents. Between 1970 and 2000, the population grew by nearly 700,000 people-per-year, an increase of 21 million people in a 30-year period. By 2001, the population totaled 54 million making the Southeast the largest EPA Region in terms of population in the U.S. The states with the greatest population increases included Florida, Georgia, and North Carolina. Florida, now at nearly 17 million people, is the fourth most populous state in the U.S. and has more people than each of four other EPA Regions'. In Georgia, four million people, nearly half of the state's population, live in the Atlanta metropolitan area. This area contains more people than the entire state of Mississippi (2.86 million) and is rapidly gaining on the state of South Carolina (4.05 million).

Population growth, alone, does not account for the rapid loss and fragmentation of the Region's critical habitats. In the 1900s, new industries and better job opportunities persuaded people to leave rural areas for a better life in the cities. Eventually suburbs became popular. More and more people moved out of the urban core in search of an acre or two they could call their own. Subdivisions, strip malls, and mega-highways soon followed. This increase in development, however, quickly out-paced local population growth. By the 1990s, many of the Southeast's communities were consuming land at a



ravenous rate. Today, the Southeast still has many of the country's fastest spreading cities. Atlanta, Georgia, Raleigh, North Carolina, and Orlando, Florida, are just three of the many Southeastern cities on the Nation's list of sprawling areas. The fastest growing human settlement in history, Atlanta, expanded by 47 percent between 1990 and 1996. In just six years the metropolitan area went from 65 miles in distance (north to south) to 110 miles; a distance equal to the state of Delaware.

Along with the traditional sources of pollution, the Region must now address the environmental consequences of our growth and changing land use. On a daily basis, according to a 1999 study, Florida's growth resulted in harvesting 450 forest acres, developing 328 farm-acres, consuming 110,000 additional water gallons, and constructing two additional road miles. Meanwhile further north, the Atlanta Metropolitan area cuts down 50 acres of tree cover each day. These actions have a tremendous impact on our water, our air and our well-being. Impacts include excess flooding and urban-stream degradation from impervious surface run-off, ozone production from increased vehicle miles driven, and decreased species diversity from the loss of habitat. Sprawl also increases traffic congestion, leaves inner cities abandoned and destroys the local sense of community.

Recognizing the way our communities grow has a significant impact on our ability to meet Agency goals, the Region is using both traditional and innovative programs to address growth-related issues. For example, the Region's Smart Growth Program brings together internal staff, federal agencies, states, local officials, businesses, researchers, non-profit organizations and private individuals to address growth-related issues and to develop better tools for community planning. Additionally, the Region developed the Southeastern Ecological Framework (SEF) to help communities identify priority areas for conservation and greenspace protection. We are also supporting collaborative partnerships, such as the

Sustainable Environment for Quality of Life (SEQL) initiative in the Charlotte-Gastonia-Rock Hill area of North and South Carolina.

As communities grow along their outer boundaries, inner cities maybe left abandoned with contaminated industrial properties. The Region's Brownfields Program works with local communities to assess risks associated with these sites and to redevelop them into productive properties. The Program also provides training resources for local residents to gain the skills needed to succeed in the work environment. Regional activities include educational workshops to target financial lenders and developers to allay fears of potential liability associated with contaminated properties and encourage investment in Brownfield sites. Because of these efforts, an abandoned industrial district in Charlotte, North Carolina has been transformed into a vibrant retail and business area. The Region is also home to the Eastward Ho! Brownfields Showcase project in Southeast Florida. The project corridor extends 115 miles through five Florida communities and contains nearly 2,100 Brownfields sites. Through the work of local, state, federal, and private agencies, the Eastward Ho! Project is revitalizing the area's historic urban core and alleviating development pressure on the Everglades ecosystem.

As the Region grows so does its demand for water. Regional growth combined with extended periods of drought decreases available water resources for competing uses, particularly for downstream populations. For example, while the Chattahoochee River originates in Georgia, the Atlanta Metropolitan Area's growth and resulting water use affects the water quantity and quality of down-stream communities and ecosystems of Alabama and Florida. Issues of water shortages resulting from increased use and pollution is a relatively new phenomenon for the Southeast, which unlike the Western States, has had a wealthy history of abundant water. Consequently, States are looking for ways to balance competing water needs associated with agriculture, industry, growing populations, and stressed ecosystems.

No other places in the Region are experiencing more growth than our coastal communities. Nearly 35 percent of the Southeast's population currently lives along the Gulf and Atlantic coasts, making them the most highly developed coastal areas in the nation. Such development pressure puts a tremendous strain on already fragile coastal systems. These systems are a valuable part of the Southeast, both environmentally and economically. The Gulf of Mexico provides more than 75 percent of the total U.S. commercial fish and shellfish landings and our estuaries provide habitat for 75 percent of the migratory waterfowl that cross the U.S. However just as with the inland waterways, habitat alterations, runoff from impervious surfaces, lawns and farms, and pathogens from failing septic tanks, and combined sewer overflows are all taking their toll. In 1999, the Southeast had 136 beach closing and advisories. Nearly 56 percent were due to bacteria levels exceeding beach water safety standards, usually from sewage or storm water. High pathogen levels impact fishing and shellfish beds. A 1990 Florida study, found nearly 40 percent of shrimp carried viruses that could potentially affect human health.

Not all of our coastal problems come from coastal communities while six of our eight states lie directly on the coasts. All eight directly affect our coastal waters. Agricultural practices and changing land uses impact local streams and rivers. These waterways in turn carry wastes, pesticides, nutrients, sediments and bacteria downstream and eventually reach the coast. In many of our estuaries, excess nutrients trigger algal blooms that strip oxygen from the water creating hypoxic zones. Very few organisms can live in these conditions. More than 7,000 square miles of the Gulf of Mexico may be totally devoid of life for several months of the year due to hypoxic conditions.

Other coastal and inland water-quality problems, originate as air emissions from incinerators, coal-burning facilities, and industrial processes. These emissions settle out and are deposited into waterways throughout the Region. Pollutant deposition can lead to algal blooms, fish kills and human

health problems. Of particular concern in this regard is mercury. Many locations in the Southeast have monitored levels of mercury deposition in rainfall that are higher than in other parts of the nation

No discussion of the Southeast can be complete without mentioning its diverse economy. In the mid-1900s, manufacturing industries such as, pulp and paper mills, textile mills, steel, mining and chemical operations began to modify our Region’s agriculturally-based economy. By the 1960s and 70s, major corporations relocated to the Region and the “New South” was born. Today our economy is still partially supported by traditional industries related to agriculture, forestry and fishing but has broadened its base to include newer manufacturing-based industries such as motor vehicle production, transport, communications and electronics. Of all the economic sectors, the service-based businesses contribute the largest revenues to our states. These include car dealerships, grocery stores, gas stations, restaurants, etc. The recent dominance of this sector is closely linked to the Southeast’s rapidly increasing population and sprawling development.

As mentioned earlier, agriculture is a major sector in the Southeastern economy. Unfortunately, agriculture has also been identified as a primary cause of surface-water pollution throughout the Region. Eroded soil particles, fertilizers and pesticides enter nearby rivers and streams and impair water quality. In many parts of the country, the use of best-management practices has reduced cropland erosion. However, the Southeast has been slower in adopting such methods. Similarly, poor management of waste from animal-feeding operations is one of our biggest causes of surface-water pollution. Early estimates in 2001, had Region 4 with 30 percent of the country’s permitted combined animal feeding operations (CAFOs); the highest for any Region.

	Chickens 		Swine	Beef 	Dairy
	Broiler	Egg Laying			
Portion of US Total in Region 4	52%	22%	19%	17%	7%
Region 4 animals (millions)	4,140	71	12 	6	0.6

Pesticide use is high in the Southeast, resulting in water and human health problems. While large quantities of pesticides used throughout the Region typically produce beneficial results there are increases in accidental exposure and misuse. Two of our states, Mississippi and North Carolina, have the highest pesticide application rates in the nation. In Region 4, we are partnering with our states and the agricultural community to strengthen worker protection programs and to make sure the products on the market meet current safety standards. We are also working to limit pesticide exposure to wildlife and sensitive human populations that often occur through environmental transport or contaminated food sources.

Another noteworthy and significant presence in Southeastern communities and landscapes is the military. The Department of Defense (DOD) has a greater impact on the economic and environmental conditions in the Southeast than in any other Region. Between the Army, Air Force, Navy and Marine Corp, there are 76 major installations and bases. Beginning in the 1940s and continuing up to the present

day, the military's presence has contributed to the increase in private-sector support and manufacturing businesses. In Georgia alone, the DOD contributes \$15.4 billion annually to the economy. However, revenue is not the only contribution these bases make to the Region. They also add to the Region's landscape. With installations that range in size from 100 acres to nearly 460,000 acres, a significant portion of land is left as natural habitat for endangered and threatened species. The military takes an active role in conservation and protection activities near their bases. For example, the Ft. Bragg Army Installation in North Carolina is a key partner in the protection of the red-cockaded woodpecker. Through the Private Lands Initiative and the use of the Southeastern Ecological Framework, the Army, the local community and several non-profit organizations are identifying "off-base" lands for permanent conservation. These efforts benefit both the woodpeckers, the Army, and the surrounding communities and ecosystems. For example, the birds get a protected habitat away from the base and the Army can use training areas that were once off-limits. Additionally, these efforts reduce base encroachment from expanding urban development, a significant problem for military installations across the Southeast.

Unfortunately, our economic prosperity does not come without impacts to the environment. In Region 4, there are over 9,400 active air sources, 29,000 Resource Conservation and Recovery Act (RCRA) large and small quantity generators and almost 1,400 active major dischargers into surface waters. These facilities report releases of over 643 million pound of pollutants per year into our water, air and land. And, even though we have 21 percent of the nation's Toxic Release Inventory (TRI) facilities, those facilities account for 34 percent of the nation's TRI releases.

Of the TRI releases, a significant portion comes from a few identified industrial sectors. The following sectors: crude petroleum and natural gas production, publicly owned sewage treatment plants, and federal or military facilities account for 96 percent of all reported chemical releases to water. Meanwhile, five industrial sectors produce 50 percent of the chemicals released to air from regulated facilities. These include the plastic materials and synthetic fibers industry, pulp mills, miscellaneous plastic production, paperboard mills, and organic chemical plants. However, over time these percentages may change. The growth in industry throughout the Southeast has resulted in a substantial number of air permit applications for new source review. Most requests are coming from power plants, vehicle assembly plants and cement manufacturing plants.

While the Region makes every effort to help facilities comply with regulatory requirements and permit guidelines, releases, both intentional and accidental, do happen. Whether they occurred recently or decades ago, such releases present a substantial threat to the Southeast's environment and public health. Through the Region's RCRA, Superfund, Emergency Response and Removal (ERR), Leaking Underground Storage Tank (LUST), and the Federal Facilities programs, these releases are being controlled and remediated. Currently our RCRA Program has 15 percent of the Nation's corrective action facilities. Through the LUST program, 3,104 sites have been cleaned up while 36,918 remain to be addressed. Additionally, the Federal Facilities program has formed numerous environmental alliances with its state and federal counterparts to facilitate and enhance cleanups at federal facilities across the Region, including those of the Department of Energy and the DOD.

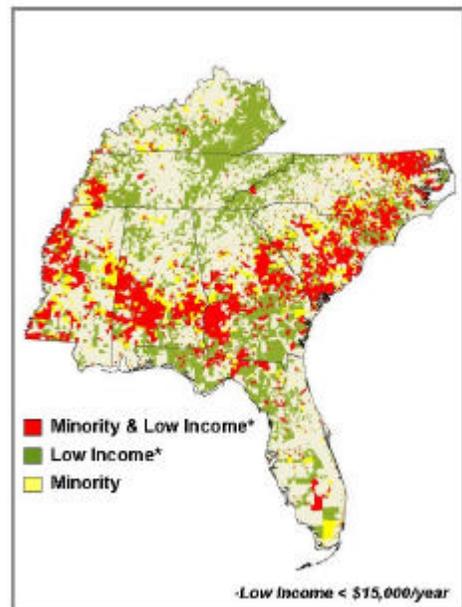
Since 1980, the Superfund Program, along with our state partners, has assessed 6,940 sites. Today, 166 sites are proposed or final on the National Priorities List (NPL) and 42 have been cleaned up and deleted. The Region is using innovative programs, like the Superfund Alternative Sites approach, to allow responsible parties to cleanup sites without listing them on the NPL.

The Region's ERR Program, with assistance from the Regional Response Team, handles Superfund removal sites and emergency responses. In 2002, the Region responded to 130 emergency incidences and started 44 removal actions. The ERR Program also focuses on response preparedness for both oil and chemical spills and homeland security. The Region takes a very active role in the education and training of oil storage facility workers, owners and operators. We have also been given the lead role in coordinating a homeland security functional exercise in collaboration with Regions 3 and 5.

With the increased popularity of the Southeast and the emphasis on economic development, business and industry will continue to locate in our states. As a Region, we are moving beyond just the routine enforcement of environmental laws and regulations. We are looking for innovative approaches to help large companies and small businesses not only reduce their production wastes but also to reuse collaborating products. Our Pollution Prevention program and our Solid Waste and Recycling Branch are working with stakeholders to increase education and promote the use of sustainable technologies. The following are just a few of our partnership projects: the WasteWise Partnership; the Energy Star program and the Carpet Recycling Initiative. Region 4 has also partnered with Region 5 to explore safe, less toxic ways to recycle computer monitors and keyboards.

Region 4 has a more rural distribution of minority and low-income people when compared to other Regions. These low income and minority communities tend to be in agricultural areas throughout all eight states and maybe disproportionately impacted by environmental hazards. Often times, these communities have limited resources and are ill prepared to deal with problems from agricultural runoff, pesticides, poorly designed or aging sewer systems, industrial air pollution and solid waste disposal. Health-wise, people in these communities tend to have higher cancer rates, pesticide-related illnesses and asthma cases.

Tribal communities in the Region face similar situations as other minority and low-income communities. Only six tribes remain in the Southeast. However, that does not diminish the Region's need to work closely with each tribal community to help them find new sources of drinking water, upgrade wastewater collection and treatment systems and address other environmental issues resulting from growth.



The health of the environment ultimately impacts the health of people. The condition of our air, water and land, although greatly improved over the past 30 years, still poses a threat to many areas of our Region. Cancer, asthma and obesity rates in the Southeast are extremely high relative to the rest of the country. The state of Kentucky has the highest smoking rate of the Nation. In addition, highly sensitive subpopulations such as children under age 18 and adults age 65 and older make up nearly 36 percent of our population.

When looking at air issues, nearly 32 percent of the Southeast's population lives in areas that fail to meet the annual PM2.5 air quality standard, while 40 percent live in areas that fail to attain the 8-hour ozone standard. These non-attainment areas are present in all states except Florida. Indoor radon exposure

is another problem in the Southeast. Region 4 currently ranks first in the number of states with radon and third for the number of people living in areas with the highest risk of elevated radon concentrations.

In our urban and sprawling areas, vehicle emissions are rapidly overtaking industry as the most significant source of toxic chemicals released into the air. The Southeast accounts for 19 percent of the nation's total road miles and 21 percent of the Nation's vehicle miles traveled. Throughout the 1990's, the number of miles people drove grew four times faster than the population. Additionally, our Region has the most miles of new road construction and is home for three of the top five cities respectively with the most per capita vehicle miles driven each day. (Houston, Atlanta, Birmingham, Nashville, Indianapolis)

Unfortunately, our love of the automobile has come with a price. In the summer of 1999, Atlanta reported a record breaking 70 consecutive smog alert days. On each of these days, hospitals around the metropolitan area saw a significant rise in asthma case. The people of the Southeast have also become very sedentary, getting little exercise from walking and bicycling. A recent CDC study found that many of the communities with people more than 30 percent over their ideal body weight were in the Southeast in rapidly growing urban and suburban areas. Between 1991 and 1999, the Region's obesity rate jumped 67 percent. Georgia led the nation with a 102 percent increase.

Region 4 takes these public health issues very seriously. The Water Program has established goals to reduce the number of impaired waterways in each state and to make sure that everyone has water that is safe to drink and fish that are safe to eat. The Air Program is working to reduce emissions from stationary sources as well as mobile sources. They are working with stakeholders in 22 areas to achieve clean air sooner through Early Action Compacts. In addition, the Air Program is collaborating with our stakeholders to develop new technologies, cleaner fuels and alternative forms of transportation. Our Children's Health program partners with the Pediatric Environmental Health Specialty Unit at Emory University to address specific children's health problems. Our Smart Growth Program, in coordination with the Agency's Office of Research and Development and the CDC, is studying innovative ways to develop communities to better protect public health and safety.

As described above, Region 4 faces significant challenges in providing the Southeast with clean air, pure water and better-protected land. While in many ways we are similar to the other nine Regions, in other ways we contain features and challenges that distinguish us from any other place in the country. How we meet these challenges and achieve our goals will ultimately determine the environmental future for the Southeast. Our Region has experienced great changes in who we are, how we use our land, and how we earn our money. To be successful we must continue to foster strong partnerships with our states, our tribes and our communities. We must value our human capital and strengthen our technical expertise. We must collect accurate data and use good, sound science. And, we must look beyond the traditional air, water and waste stovepipes to build cross-media partnerships that take a holistic approach to problem solving. If we can do these things and reach the goals set forth in this plan, the work we do as a Region will be time well spent.

Chapter 2

REGIONAL STRATEGIES FOR ACHIEVING NATIONAL GOALS AND OBJECTIVES

Section 1 Goal 1: Clean Air

Section 2 Goal 2: Clean and Safe Water

Section 3 Goal 3: Protect and Restore the Land

Section 4 Goal 4: Healthy Communities and Ecosystems

Section 5 Goal 5: Compliance and Environmental Stewardship

GOAL 1: Clean Air and Global Climate Change

Objective 1.1: Healthier Outdoor Air. Through 2010, working with partners, protect human health and the environment by attaining and maintaining health-based air quality standards and reducing the risk from toxic air pollutants.

Subobjectives: Stationary Sources, Mobile Sources and their Fuels, Area-specific Air Quality Management, Area-specific Air Toxics

Sub-Objective 1.1.1: More People Breathing Cleaner Air

Regional Conditions:

Criteria Air Pollutants. In Region 4, 26% of the population live in areas that fail to attain the annual PM_{2.5} air quality standard (14 million people out of a total of 53 million). For the 8-hr ozone standard, 40% of the population live in areas that fail to attain the standard (21 million people out of a total of 53 million). Violating areas include portions of all Region 4 states except FL (AL, GA, KY, MS, NC, SC, TN).

Air Permitting. Region 4 has in recent history experienced a substantial increase in population and growth of industry. The growth in industry has resulted in a substantial number of permit applications for new source review. Significant types of sources constructing major stationary sources include power plants, vehicle assembly plants and cement manufacturing plants. Issues typically associated with this type of construction are what constitutes the best available control technology and concerns about impact on the overall air quality of the Region.

Region 4 has actively pushed completion of title V permits resulting in a permit issuance rate of approximately 96%. In addition the Region has actively trained the states, industry and the public regarding the permit issuance process and the opportunity for their participation. To date, the Region has received 32 petitions requesting that the Agency object to a Title V permit. This represents 28% of the petitions received nationwide.

Regional Approach:

Criteria Air Pollutants. Follows national program, with some unique priorities.

The region has a very high number of areas violating the Ozone and PM areas. As a result the region is working very closely with the state and local agencies and tribes to ensure they have the latest guidance on designations. This involves working on several national work groups developing the implementation and boundary guidance.

Heavy duty diesel engines are a major source of fine particles. Therefore, the Region is actively supporting the Clean School Buses Initiative to protect the most vulnerable portion of the population, children. Homeland security strategies are included in Goal 4, Objective 5.

Five (5) Region 4 states submitted Early Action Compacts (EACs) for areas violating the 8-hr ozone standard (GA, MS, NC, SC, TN) that will provide for early reductions in ozone levels for 52% of the population that live in areas that fail to attain the standard (11 million people out of a total of 21 million).

Air Permitting. Follows national program, with some unique approaches.

The Region maintains a database of combustion turbines for the entire United States. In addition, the Region participates on national workgroups charged with establishing a level of consistency in EPA review of best available control technology for power plants and for vehicle assembly plants. The Region is also working closely with permitting authorities to identify systematic concerns in permitting as well as concerns on individual permits. After identification of concerns, the Region engages in concentrated

communication on the issues with the permitting authority.

The Region has taken an aggressive approach in responding to Title V petitions. It is our goal to ensure that every petition received in the Region has a proposed response signed and forwarded to Headquarters within 53 days of receipt. There is an effort underway in the Agency to look at impediments to timely completion of EPA's response to petitions.

Primary Measures of Progress:

- Tons of NOx, VOC, SO2, and PM, emissions reduced from 2000 levels*
- % of population living in nonattainment areas*
- Number of new source review permits issued*

Regional/National Strategic Targets	Strategy to Meet Targets	Outcomes/Outputs/Time Frames
1. Reduce NOx emissions from power plants and other combustion sources.	1. Approve and implement NOx SIP Cdl in affected states 2. Approve and implement Phase 2 NOx SIP Cdl in affected states	1. Finalize approval of Tennessee's NOx SIP Program (last Region 4 program to approve) 2. Finalize approval of Region 4 Phase 2 NOx SIPs (AL, GA, KY, SC & TN) - TBD once EPA rule is finalized.
2. Control VOC emissions from stationary sources	1. Implement new VOC emission standards for consumer products. 2. Enforce VOC requirements. 3. Enforce MACT	1. % VOCs reduced as the result of new rules 2. VOC inspections of major sources (state/EPA) 3. VOC enforcement actions and SEPs
3. Use innovative permitting tools to improve air quality	1. Conduct outreach and training workshops with state/local agencies and interested industry personnel on PAL development and innovative Title V permitting techniques 2. Work with permitting agencies, EPA offices, and industry to approve PAL permits.	1. Number of PAL permit projects commenced in Region 2. Number of outreach efforts where flexible permitting is discussed with industry/agency personnel 3. Review 100% of all PAL permits 4. Amount of pollution avoided with PAL permit.

Regional/National Strategic Targets	Strategy to Meet Targets	Outcomes/Outputs/Time Frames
<p>4. Use permitting tools to ensure continued improvement in air quality, and preserve air quality in areas maintaining the air quality standards.</p>	<ol style="list-style-type: none"> 1. Ensure new source review permits reflect state-of-the-art technology 2. Ensure states issue Title V permits for existing major sources reflecting all applicable requirements 3. Respond timely to petitions to object to Title V permits 4. Review 50% of major NSR permits in remaining Region 4 states. The targeted 50% permit reviews will include all of the following projects: <ol style="list-style-type: none"> a. Coal-fired power plants b. Automotive assembly plant c. Projects where a single pollutant increases > 1000 tons per year d. Nonattainment area permits. e. Combustion turbines 5. Conduct all Title V/NSR program review of Title V NSR permitting authorities with source population greater than 10 tpy by 2006. 	<ol style="list-style-type: none"> 1. The number of major NSR permits reviewed and the emissions reductions achieved as a result of applying BACT 2. The number of targeted Title V permit reviews completed 3. The number of responses to petitions sent from the Region to HQ. 4. Number of programs reviewed 5. Report documenting completion of the program review.
<p>5. Ensure quality of particulate matter ambient monitoring data need to expand to include designation process.</p>	<ol style="list-style-type: none"> 1. Review PM air quality data reported to AQS for validity 2. Conduct technical system audits 3. Evaluate state/tribal area/boundary recommendations after receipt in February 2004. 4. Provide response to state/tribal recommendations and work with states/tribes during 120 day consultation period 5. Review and evaluate SIPs from states/tribes. Coordinate within Region and with HQ. Draft and finalize action on submittals in <u>Federal Registers</u>. 	<ol style="list-style-type: none"> 1. Establish an adequate PM2.5 network to address monitoring needs for Region. 2. Complete representative audits of monitoring sites and monitoring activities to ensure operation of a quality PM2.5 monitoring network. 3. Ensure that quality and quantity data are collected and entered into the AQS. 4. Number of PM emission inventories completed 5. Number and results of PM2.5 monitoring sites inspected for compliance with siting requirements 6. Number of PM2.5 ambient monitoring sites deployed 7. Final submittal of attainment SIPs for all areas designated nonattainment (2009-2014)
<p>6. Continuous emissions monitoring to ensure compliance</p>	<ol style="list-style-type: none"> 1. Identify violations 2. Take enforcement actions 	<ol style="list-style-type: none"> 1. Enforcement actions

Regional/National Strategic Targets	Strategy to Meet Targets	Outcomes/Outputs/Time Frames
7. Work with maintenance areas for the 1-hour ozone standard.	<ol style="list-style-type: none"> 1. Review updated 1-hour ozone and CO maintenance plans. 2. Review ozone air quality data 	<ol style="list-style-type: none"> 1. Approved maintenance plan updates for all required areas. 2. Continued maintenance for NAAQS.
8. Ensure air quality of areas violating the 8-hour ozone air quality standard.	<ol style="list-style-type: none"> 1. Participate in meetings and conference calls with states, tribes and headquarters to develop implementation guidance and assist the States/tribes in determining boundary recommendations for 8-hour ozone nonattainment areas. 2. Participate in modeling projects with states in Region 4. 3. Evaluate states'/tribes' area/boundary recommendations, after receipt in July 2003 4. Provide response to state/tribal recommendations and work with states/tribes during 120 day consultation period 5. Review and evaluate SIPs from states/tribes. Coordinate within Region and with Headquarters. Draft and finalize federal registers approving attainment SIPs 	<ol style="list-style-type: none"> 1. Find submitted of attainment SIPs for all areas designated 8-hour ozone nonattainment - (2007/2008) 2. Number of areas to attain NAAQS
9. Work with Early Action Compact (EAC) areas to get better air quality (8-hour ozone) sooner.	<ol style="list-style-type: none"> 1. Work with 22 EAC areas to meet milestones leading to SIP submitted in 2004 and attainment in 2007. 2. Participate in outreach and education meetings, especially with local governments. 3. Review documentation submitted to meet milestones and provide comments as needed. 4. Work with Region 6 on interstate areas. 5. Coordinate between Region 4 states on interstate areas. 6. Review and comment on drafts of SIPs, including modeling, emission inventories and control strategies. 	<ol style="list-style-type: none"> 1. Number of meetings attended and presentations given. 2. Find submitted of attainment SIPs by 5 states for Early Action Compact areas - December 2004. 3. Number of areas attaining in 2007. 4. Number of SIPs approved. 5. Population breathing cleaner air
10. Regional Haze/Visibility - Improvement of visibility by reducing haze in Class I areas in the Southeast.	<ol style="list-style-type: none"> 1. Provide technical support to the regional planning organization (VISTAS) charged with the development of the regional haze strategy for the Southeast. 2. Provide policy support to VISTAS. 	<ol style="list-style-type: none"> 1. Regional haze implementation plans for each state (tentatively due in 2007) 2. Interim measures of progress toward each plan.

Regional/National Strategic Targets	Strategy to Meet Targets	Outcomes/Outputs/Time Frames
<p>11. Ensure ozone and PAMS monitoring data quality. Evaluate PAMS data to see if control strategies are effective in reducing ambient values.</p>	<ol style="list-style-type: none"> 1. Review and modify PAMS 2. Review ozone and PAMS air quality data reported to AIRS/AQS for validity 	<ol style="list-style-type: none"> 1. Provide report(s) on data obtained from PAMS. Work with OAQPS to evaluate air quality data 2. Ensure that monitoring network meets CFR requirements. 3. Conduct network reviews, and audits as required. 4. Ensure that quality, complete and timely data are reported to AQS. 5. Conduct workshop to provide training in data analysis, AQS, monitoring and other technical issues/management for region
<p>12. Complete public outreach strategy</p>	<ol style="list-style-type: none"> 1. Ozone forecasting and mapping and associated outreach to TV stations and other media 2. Smog alert service for summer camps, day care centers, sensitive individuals, school nurses. 3. Targeted outreach efforts (e.g. national parks, science centers) 4. Mobile sources related outreach efforts 	<ol style="list-style-type: none"> 1. TV stations broadcasting ozone information and daily newspapers carrying Air Quality Index. 2. Number of people signed up for smog alert service. 3. Estimated number of people reached through outreach events.
<p>13. Negotiate, process and manage grants, cooperative agreements and interagency agreements which produce high quality (free from defects and flaws), needed work in a timely manner.</p>	<ol style="list-style-type: none"> 1. Work closely with grantees/prospective grantees (state and local agencies, non-profits, universities, multi-jurisdictional organizations); the Grants Management Office (GMO), the Budget Office and the Financial Management Office; and management and technical project officers. 2. Tools include the Integrated Financial Management System, APTMD's post award monitoring plan, Grants Team standard operating procedures, grants regulations and guidance, Office of Air and Radiation (OAR) technical and grant guidance, the Air Planning Agreement internet system, the Integrated Grants Management System. 	<ol style="list-style-type: none"> 1. Timely processing of over 240 grant actions for award by GMO. 2. Grant programs of high integrity 3. Valuable and useful work products

Regional/National Strategic Targets	Strategy to Meet Targets	Outcomes/Outputs/Time Frames
14. Accurately monitor, reconcile, and track over \$34 M in grant funding.	<ol style="list-style-type: none"> 1. Work closely with the GMO, the Budget Office and the Financial Management Office. 2. Tools include the Integrated Financial Management System, Government Performance and Results Act (GPRA) methodology worksheets, decision memoranda, funding allocations and policies from OAR, the Region 4 Grants Management Office, the Integrated Grants Management System (IGMS). 	<ol style="list-style-type: none"> 1. No monies lost or returned to HQ or the U.S. Treasury during the fiscal year.
15. Reduce emissions from diesel vehicles and equipment in urban areas	<ol style="list-style-type: none"> 1. Work with school administrators, public transit agencies, and others to encourage retrofits or alternative fuels 2. Development and enforcement of anti-idling requirements 3. Development and enforcement of diesel vehicle testing programs 	<ol style="list-style-type: none"> 1. Number of Equipment with retrofits 2. Number of Alternative fuel vehicles 3. Number of On-road diesel testing failures 4. Enforcement actions and SEPs related to anti-idling and retrofits of diesel vehicles. 5. Emission reductions and improved air quality.
<ol style="list-style-type: none"> a. Early implementation of Ultra Low Sulfur Diesel (ULSD) b. Early implementation of ULSD for non road c. Continue of Heavy Duty Diesel (HDD) retrofit pilot programs. d. Locomotive auxiliary power unit (APU) installation at Switch yards 	<ol style="list-style-type: none"> 1. Regulatory flexibility; 2. NR regulation flexibility; load incentives load contract criteria changes 3. Grant funding from HQ. 4. Regulatory flexibility at local and state level; emission credit protocol 	<ol style="list-style-type: none"> 1. 2-5% reduction in on highway diesel NOx in 2005 2. 5-10% reduction in on highway diesel PM by 2005 3. 20% reduction in non road diesel NOX and PM emissions by 2007 4. 8 new retrofit pilots in the region by 2005 5. 25% reduction in PM exposure at retrofitted pilots 6. 1 locomotive APU pilot in region by 2005 7. 90 % reduction in NOx and PM from Switcher engines
16. Reduce NOx and VOC emissions from vehicles	<ol style="list-style-type: none"> 1. Maintain enhanced automobile testing. 2. Maintain cleaner-burning gasoline. 3. Ensure conformity between transportation planning and air emission budgets. 4. Promote Best Workplace for Commuter program 5. Advocate effective use of DOT's CMAQ funds 6. Work with Smart Growth program and assist with NEPA review of new projects. 	<ol style="list-style-type: none"> 1. Number of state auto testing programs are implemented effectively, including on-board diagnostic testing for 1996 and later model years. 2. Projected future mobile emissions reflected in DOT conformity analysis. 3. Number of employees covered by Commuter Choice programs.

Regional/National Strategic Targets	Strategy to Meet Targets	Outcomes/Outputs/Time Frames
17. Greener Airports	1. Promote a multi-media voluntary program with airports in which EPA recognizes superior environmental performance, including air pollution control measures.	1. Number of airports participating 2. Number of vehicles running on cleaner fuels. 3. Emission reductions achieved *This program was delayed due to 9/11. Headquarters recently resumed working on this initiative. The region will provide support and expect to be able to report out on this activity in FY 05.

Sub-Objective 1.1.2: Reduced Risk from Toxic Air Pollutants By 2010, working with partners, reduce air toxics emissions and implement area-specific approaches to reduce risk to public health and the environment from toxic air pollutants.

Regional Conditions:

Air Toxics. Region 4, while encompassing approximately 10% of the nation's land area, includes about 19% of the nation's population and accounts for 21% of the nation's vehicle miles traveled. Although we have approximately 21% of the nation's TRI air facilities, those facilities account for approximately 34% of the nation's TRI releases (TRI 2000). Region 4 is home for about 19% of the National Toxics Emissions Inventory. The National Air Toxics Assessment (NATA) analysis as well as evaluations of environmental data for the Southeast indicate that air toxics concentrations are of possible concern in numerous locations and even more elevated in a subset of locations. Many locations in the southeast have monitored mercury deposition in rainfall that is higher than in other parts of the nation. This loading can affect coastal fisheries in the Atlantic and Gulf and in numerous freshwater locations.

Risk assessment requires information concerning ambient levels of air toxics. A wealth of information on air toxics emissions should be available through emission inventories. The quality of these inventories needs to be improved to provide more reliable pollutant source information for use in models that estimate ambient concentrations, exposure, and risks. Monitoring to verify these modeled values and track trends is important.

State and local governments are essential to the future of the National Air Toxics Strategy. However their skills have been focused on a regulatory air program for many years. The National Air Toxics Strategy expands our approach to air toxics management to include not only a regulatory approach, but also a community level/community involvement component. EPA must support the State and Local programs technically and fiscally in order to develop their risk assessment/management and community involvement skills.

Air Toxics Assessment and Risk Reduction. The Region will work to evaluate the impact of air toxics on human health and the environment by using a wide array of regulatory, analytical tools, and special initiatives. These range from implementing the national emission standards for hazardous air pollutants to collecting information about air toxics through emissions inventories and monitoring to track trends and perform screening and more refined analyses of air toxics exposures. The ultimate goal is to identify and reduce unacceptable risks to humans and the ecosystems of the Southeastern United States. In addition, we strive to lend our expertise to the development of national strategies, policies, and tools to promote cleaner air.

Primary Measures of Progress

Tons of air toxics emissions reduced (including PBT chemicals) using the National Emissions Inventory and/or the Toxics Release Inventory.
Continued successful delegation and implementation of the technology-based MACT program as well as the upcoming residual risk program.
Training to State and local air agencies and other stakeholder on Clean Air Act and TRI regulatory programs as well as risk assessment and risk reduction strategies and opportunities.
Trends in National Air Toxics Trend site data and National Air Toxics Assessment risk characterization results.
Identification and implementation of potentially at-risk communities and, when risks are unacceptable, implementation of risk management plans to reduce risks.

Regional/National Strategic Targets	Tools and Contacts	Outcomes/Outputs/Time Frames
1. Comprehensive State/local/tribe program building activities related to Air Toxics Program Structure	1. MACT Delegation 2. MACT Implementation Assistance 3. Development of risk related capability at the S/L/T level 4. Risk related implementation assistance 5. Training for all Region 4 S/L/T in risk assessment/communication/community involvement/etc. 6. Technical assistance in MACT/Risk tool development 7. Technical assistance in MACT/Risk guidance development 8. Pollution prevention activities 9. Community involvement	1. Full MACT delegation and S/L/T risk assessment capability 2. Integrated MACT/Risk program implementation at S/L/T level 3. S/L/T implementation of 112(g), 112(j), and MACTs 4. S/L/T capability in RSEI, NATA, RAMI, Risk Assessment, Risk Communication, Public Health Assessment, and Community Involvement 5. Regional assistance in completing MACT rule development and MACT implementation guidance 6. Inclusion of regional perspective into mobile source rule development 7. Annual Region 4 Air Toxics Workshops bringing federal, state, local, tribal staff and managers together; development of S/L/T collegial network for community level risk activities 8. Reduced human and ecological risk from air toxics.

Regional/National Strategic Targets	Tools and Contacts	Outcomes/Outputs/Time Frames
<p>2. Comprehensive State/local/tribe program building activities related to Air Toxics Characterization</p>	<ol style="list-style-type: none"> 1. Collaboration with S/L/T on improved air toxics emissions inventory 2. EPA/S/L/T leadership in community assessments 3. Risk-based targeting for regional characterizations 4. Integrated indoor and outdoor risk evaluations and management plans 5. Involvement with National Initiatives 6. Involvement with tool and guidance development 7. Characterize urban and rural ambient air toxics through monitoring and data analysis 8. Work with OAQPS, OAR, NATTS, NATMP, the National Air Toxics Steering Committee and the Regional Air Toxics Characterization Workgroup. 	<ol style="list-style-type: none"> 1. Regional ambient trends 2. Improvement in NATA estimations 3. Identification of high risk areas 4. Completion of integrated risk reduction strategies for communities 5. Education concerning indoor air risk concerns and promotion of risk-reducing behaviors, concerning mobile source contributions, and concerning stationary source contributions to air toxics risks 6. Shared expertise and experience in National Initiatives 7. Completion of Air Toxics Risk Assessment Reference Manuals. 8. Reduced human and ecological risk from air toxics. 9. Established Regional Air Toxics Monitoring Network. 10. Special monitoring studies, e.g. community level assessments. 11. Approved quality assurance monitoring plans as an integral part of all monitoring and activities. 12. Representative amount of audits and adequate oversight to ensure that a quality monitoring network is being operated. 13. Provision of assistance in data analysis and interpretation. 14. Quality, usable ambient air toxics monitoring data in the AQS for the determination of exposure, support risk analysis, trends and ambient air quality

Objective 1.2: Healthier Indoor Air. By 2010, 22.6 million more Americans than in 1994 will be experiencing healthier indoor air in homes, schools, and office buildings.

Regional Conditions:

Indoor Radon. Region 4 is the largest, both in number of states (8) and in population (19% of nation's total). It has the third largest number of people in the U.S. living in Zone 1 counties, and the 3rd largest in Zone 2. Zone 1 = the highest risk of elevated radon. At the EPA action level of 4 pCi/L, the lifetime risk of developing a radon-caused fatal lung cancer is about 1 in 100 (smokers & non-smokers combined). Numerous homes in Region 4 have tested at over 100 pCi/L, representing a risk of approximately 1 in 3. Statewide averages from over 100,000 test results indicate the percentage of homes exceeding 4 pCi/L ranges from 3% in Mississippi to 40% in Kentucky.

Indoor Air. Although Region 4 represents only 10% of the nation's area it contains around 19% of the nation's population. Historically, Region 4 has had significant sources of indoor air pollutants. Region 4 states traditionally grow tobacco (90% of U.S.) and manufacture tobacco products (two-thirds of U.S.), which makes it more politically difficult to discuss limitations on environmental tobacco smoke (ETS). Besides that, Region 4 states use tobacco; four of the 15 states with highest smoking rates are in Region 4, including Kentucky, whose smoking rates are the highest.

The mild climate includes rain and high humidity throughout the Region, which supports mold growth in many buildings. Many Region 4 schools are in poor, rural areas, with inadequate maintenance budgets adding to school Indoor Air Quality (IAQ) problems. Exacerbating factors for asthma include poverty, and may include race; both of these are prevalent, especially in rural areas.

Regional Approach:

Indoor Radon. The primary focus of the Regional Radon Program is the development of strong state programs that achieve specified measurable results of risk reduction. The Region awards State Indoor Radon Grants of upwards of \$1.5 - 2 million for this purpose. In addition, funding and other means of support are sought for projects (not realistically conducted by one or two states) to benefit the entire region. This includes the identification and study of alternative testing strategies for buildings located in areas of karst geology, and the pursuit of a project to identify the moisture reduction benefits of radon mitigation systems, in order to promote them for improvement of indoor air quality benefits in addition to radon. The other major effort involves overseeing the Southern Regional Radon Training Center in order to maintain a high level of technical proficiency in the region.

Indoor Air. The Region has a multi-pronged approach. For schools, Regional staff has focused on implementing IAQ Tools for Schools (TfS) in Florida and in Tennessee, so far with gratifying results. Secondhand smoke materials have been distributed at numerous health fairs and other public events. ETS is also a significant part of the asthma outreach, which is conducted throughout the Region, through Open Airways classes and other approaches.

Primary Measures of Progress:

Indoor Radon

Homes: By 2010, approximately 2,900,000 people will be living in homes built with radon-resistant features.

Schools: By 2010, approximately 2,600,000 students and staff will experience improved IAQ.

Workplaces: By 2010, approximately 1,200,000 office workers will experience improved IAQ.

Indoor Air

- # people with Asthma Action Plans with triggers completed
- # of students and staff experiencing improved air quality in their schools
- # homes visited, households served
- # smoke free home pledges
- # of schools implementing IAQ TfS or other IAQ management plan

Regional/National Strategic Targets	Strategy to Achieve Objective	Outcomes/Outputs/Time Frames
1. Reduce health risk from indoor radon throughout Region 4. Support/encourage radon action by States.	1. State Indoor Radon Grants (SIRG) program annually awards approx. \$1.5 to \$2M. Annual state program development, for staffing, outreach, education, training, promotion of HQ priorities, special projects, & consumer response.	1. # homes built w/radon-resistant new construction (RRNC) techniques 2. # homes tested as part of real estate transactions 3. # homes mitigated 4. # schools mitigated 5. # children with reduced exposures
2. Complete radon/karst efforts.	1. Three-state karst study, follow-up training and demonstrations, addition of RRNC study. Southern Regional Radon Training Center (Auburn U), Western Kentucky U, Oak Ridge National Labs, and involved state programs.	1. New testing strategy for karst areas. 2. Tech transfer of karst info to other states (besides initial 3) and private sector. 3. Potential new RRNC requirements for homes built in karst areas.
3. Ensure technical proficiency of radon testers and mitigators. Work with state programs to develop regulatory programs.	1. Promote training and certification programs, development of new training for continuing education, & use of regional radon training centers through SIRG, annual conferences & regional meetings, etc. 2. Ensure any new state requirements are technically correct and feasible.	1. State programs for radon testers and mitigators which provide for listing, certification, training, continuing education, reporting, and/or inspections. 2. # qualified personnel
4. Continue seeking funding for evaluation of the IAQ benefits (moisture reduction) of radon mitigation systems.	1. \$100K approved by HQ as initial innovative project, \$30K for planning/ design meeting. Request for proposals to go out during FY 03. 2. Need an additional \$150-250K to obtain national footprint & provide enough variety of homes.	1. Determine whether radon systems help reduce moisture, thereby potentially reducing mold buildup, leading to reduction in asthma triggers. Result could be homes being fixed even by those who don't agree with "radon" issue, along with reduced incidence of asthma.
5. Work with ORIA's Indoor Environments Division to get state Map of Zones updated. Current Zone 1's have most risk for radon problems, then 2 & 3.	1. Develop consistent criteria for use by states in updating their maps. Formally revise zone designations. Many will go from Zone 2 to Zone 1.	1. Areas with greatest risks identified.

Region/National Strategic Targets	Strategy to Achieve Objective	Outcomes/Outputs/Time Frames
6. Reduce exposures to indoor environmental triggers of asthma	<ol style="list-style-type: none"> 1. Open Airways asthma grants 2. Participate in asthma conditions 3. Link Managing Asthma in the School environment to IAQ TFS implementations 4. Promote ETS pledge campaign in asthma initiatives 5. Distributing "Health at Home: Controlling Asthma Triggers" video 6. Regional Asthma Summit 	<ol style="list-style-type: none"> 1. Fewer asthmatic episodes at school and home. 2. Awareness of asthma triggers raised. 3. Coordinated asthma outreach

Region/National Strategic Targets	Strategy to Meet Targets	Outcomes/Outputs/Time Frames
7. Improve state and local agency capabilities in IAQ programs	<ol style="list-style-type: none"> 1. Host quarterly conference call to furnish IAQ information 2. Distribute publications, reports, and other information to agencies 3. Support local agency requests for training, expertise, etc. 	<ol style="list-style-type: none"> 1. Customer service recognized 2. Local and state agencies coordinate outreach and problem-solving with EPA
8. Improve indoor environments in schools	<ol style="list-style-type: none"> 1. Distribute IAQ TFS Kits 2. Encourage State IAQ policies 3. Grant funds for IAQ TFS implementation 4. IAQ TFS training and presentations 5. Work with local agencies to assist schools in IAQ TFS implementation 	<ol style="list-style-type: none"> 1. Improved IAQ in schools which promotes better student learning. 2. Reduced absenteeism at schools.
9. Reduce exposure to environmental tobacco smoke.	<ol style="list-style-type: none"> 1. Work with and encourage state, local, and tribal programs to use EPA materials to encourage parents to make their homes smoke-free. 2. Furnish outreach information to the Indian Health Service, state cooperative extension services, American Lung Association chapters, and other partners. 	<ol style="list-style-type: none"> 1. Reduced number of individuals exposed to environmental tobacco smoke. 2. Reduced number of homes with children aged 6 and under where smoking is allowed.

Objective 1.3: Protect the Ozone Layer. By 2010, through worldwide action, ozone concentrations in the stratosphere will have stopped declining and slowly begun the process of recovery, and the risk to human health from overexposure to ultraviolet radiation, particularly among susceptible subpopulations, such as children, will be reduced.

Regional Conditions: The stratospheric ozone program is an EPA lead program without state delegation. Region 4 has a continuing strong program to reduce the release of ozone depleting substances. The Southeast has an abundance of sources under both Sections 608 and 609 of the Clean Air Act and implement a strong compliance assistance and monitoring and enforcement program. This objective also cross references Goal 5.

Regional Approach: The Region is following the national program. Investigations and case development are undertaken independently by Region 4 and the Region also joins Headquarters and other Regions in investigating large companies in violation of the regulations.

Primary Measures of Progress:

- The number of entities reached with compliance assistance.
- The amount of CFCs prevented from being released.
- The number of enforcement actions taken.

Regional/National Strategic Targets	Strategy to Achieve Objective	Outcomes/Outputs/Time Frames
Provide a strong CFC Federal-lead program.	1. Provide compliance assistance to industry and businesses that provide motor vehicle air conditioning service. 2. Provide compliance monitoring and enforcement where appropriate to serve as a deterrent to non-compliance.	Use of alternate coolants.

Objective 1.4: Radiation. Through 2008, working with partners, minimize the unnecessary releases of radiation and be prepared to minimize impacts to human health and the environment should unwanted releases occur.

Sub-Objectives: Enhance Radiation Protection; Maintain Emergency Response Readiness

Regional Conditions:

Staff monitors federal and private sites being cleaned up under the Superfund Program and Department of Defense Base Realignment and Closure (BRAC) Plan. Staff works with Region 4 state radiation programs to identify uncontrolled radioactive sites in the region and proceed to control and clean them up in an expeditious manner.

Regional Approach:

Generally follows national program.

Primary Measures of Progress:

- DOE Compliance levels with EPA radiation air toxic standards (NESHAPs)
- DOD sites being remediated under the BRAC program

Sub-Objective 1.4.1 Enhance Radiation Protection

Regional/National Strategic Targets	Strategy to Achieve Objective	Outcomes/Outputs/Time Frames
1. Implement standards and guidance to limit public & environmental exposure to radiation and ensure safe waste disposal.	1. Evaluate DOE compliance with EPA radiation air toxic standards (NESHAPs) Evaluate DOD compliance with EPA cleanup standards	DOE Compliance levels with EPA radiation air toxic standards (NESHAPs) DOD sites being remediated under the BRAC program (see primary measures above)

Regional/National Strategic Targets	Strategy to Achieve Objective	Outcomes/Outputs/Time Frames
2. Inform and educate people about radiation risks and promote actions that reduce human exposure	1. Support remediation and decommissioning efforts at NCP, DOE, DOD and other rad sites	DOE Compliance levels with EPA radiation air toxic standards (NESHAPs) DOD sites being remediated under the BRAC program
3. Obtain and analyze quality data to support decision-making	1. Evaluate annual NESHAPs reports for compliance and DOD project reports as milestones are reached.	DOE Compliance levels with EPA radiation air toxic standards (NESHAPs) DOD sites being remediated under the BRAC program
4. Support national radiological emergency response efforts	1. Participate in FEMA emergency response exercises Implement Regional "Roadmap": control/inventory of Regional radioactive sources; train emergency response personnel in radiological response operations; complete and refine Regional rad response plan; participate in rad response exercises at local and state levels throughout Region 4	Number and type of Response Exercises participated in Identify equipment and maintain readiness of response equipment Review/modify Regional Rad Plan

Sub-Objective 1.4.2: Maintain Emergency Response Readiness

Regional/National Strategic Targets	Tools and Contacts	Outcomes/Outputs/Time Frames
1. Add 3 additional ERAM sites	1. Work with state/local agencies and ORIA.	1. Provide coordination and assistance to ORIA/NAREL and state and locals in establishing a recommended Regional monitoring network for aviation radiation particulate (ERAMS) program. 2. Assist in the operation of the ERAMS monitors.
2. Maintain readiness to respond to radiation emergencies.	1. Training and test cases such as Falling Star.	1. Ensure that adequate staff is properly trained, including participation in test cases and emergency simulations, for preparedness to respond to emergency response incidents associated with potential radiation exposure.
3. Coordinate Homeland Security Monitoring operation	1. Work with OAQPS in Homeland Security monitoring activities.	1. Coordinate with S/Ls to ensure that Homeland Security monitoring activities are properly implemented, operational. 2. Provide assistance to S/Ls continuous operation of network. 3. Coordinate resources for effective operations.

Objective 1.5: Reduce Greenhouse Gas Intensity. Through EPA's voluntary climate protection programs, contribute 45 million metric tons of carbon equivalent (MMT CE) annually to the President's 18 percent greenhouse gas intensity improvement goal by 2012.

Regional Conditions:

The release of greenhouse gases worldwide from combustion sources both mobile and stationary is predicted to lead to a continued rise in average temperature and sea level globally. Both of these effects will potentially affect the Southeast by stressing water quality and quantity, public health, food availability, energy availability, insurance rates, government budgets, and human settlements/land use. Regional and local climate change effects cannot be predicted with confidence. The general global circulation model does not have a fine enough grid to model regional or local effects. However, the Southeast does have particular areas of vulnerability to these type of global changes; the Southeast has an extensive coastline (sea level rise would result in enhanced coastal erosion, coastal flooding, loss of coastal wetlands, and increased risk from storm surges, particularly in Florida and much of the Atlantic coast. IPCC Summary for Policymakers, Climate Change 2001, Impacts, Adaptation and Vulnerability), robust agriculture (Some crops would benefit from modest warming...but effects would vary - IPCC), and is growing faster than the U.S. average. This growth is already causing problems with water availability, air quality, and public health (Vector-borne diseases may expand their range in North America exacerbated air quality and heat stress morbidity and mortality would occur. - IPCC). These problems will only be aggravated by the effects of climate change and are likely to require institutions to cope with rapid and sweeping changes.

Regional Approach:

Region 4 is focusing on building partnerships with state/local/federal governments, schools, residential builders, and non-profit organizations while increasing the public's knowledge of energy-efficient practices and products. Region 4 is also implementing actions in its facility to demonstrate the benefits of energy-efficiency all in an effort to cause a market transformation.

Primary Measures of Progress:

- *Change in the Southeastern commercial and residential market penetration of energy efficient practices and products.*
- *Number of media impressions (audience reached) from advertising or television promotions.*
- *Number of benchmarked buildings*
- *MMTCE (million metric tons of carbon) reductions*
- *Energy use reductions over time*

Regional/National Strategic Targets	Tools and Contacts	Outcomes/Outputs/Time Frames
1. Increase CAFÉ standards	1. HQ/Congressional changes in CAFÉ	1. 2010; improved fuel economy reduced CO2 emissions
2. Increase energy efficiency knowledge and visibility in the Southeast.	1. Increase the visibility and recognition of the Energy Star Mark in the Southeast. 2. Promote the use of the Energy Star portfolio manager to strategic targets (offices, K-12 schools, etc). 3. Promote the Energy Star mark for the Sam Nunn Atlanta Federal Center (AFC) 4. Outreach to DOE Atlanta Regional Office, Southface Energy Institute, and the State energy offices to promote Energy Star in the Southeast.	1. Reductions in carbon emissions from implementation of energy efficiency measures in commercial and residential markets. 2. Greater recognition of the Energy Star mark in the Southeast.

Objective 1.6: Science/Research. Through 2010, provide and apply a sound scientific foundation to EPA's goal of clean air by conducting leading-edge research and developing a better understanding and characterization of environmental outcomes under Goal 1.

Sub-Objective: Science to Support Air Programs, Air Pollution Research

Regional Conditions:

See above objectives for discussion of environmental and human health conditions.

Regional Approach:

Generally follows national program.

Primary Measures of Progress:

Improve ability to define and extent of sources contributing air quality problems in non-attainment areas

Improve visibility in Class I areas

of states/areas collecting sufficient data for attainment decision-making.

Strategies	Tools/Programs	Additional Measures of Progress
1. Increase knowledge about ozone formation and controls needed to achieve ozone & PM2.5 standards.	1. Photochemical Assessment Monitoring Stations (PAMS) 2. PAMS QA oversight and auditing 3. Photochemical grid model 4. Evaluate geographic patterns of ozone & ozone precursors to determine where regional reductions should occur to maximize ozone reductions 5. Multi-state modeling to reduce impact of transported ozone & PM2.5 6. Evaluate geographic patterns of PM2.5 for usefulness of regional reduction programs 7. AIRS (air quality data system) or (AQS) Air Quality System	1. # states providing PAMS data suitable for use 2. # of states collecting PM2.5 data useful geographic evaluations
2. Coordinating with the OAQPS, NATTS, provide research on particulate from mobile diesel engines	1. Install and operate aethalometers for diesel emissions research.	1. Coordinate installation and continued operation of aethalometers for diesel particulate levels at urban NATTS. Provide required quality assurance guidelines and audits. 2. Ensure that quantity and quality data are generated and made available in the AQS.; 3. Provide data analysis to better understand risk associated with diesel emissions.

Strategies	Tools/Programs	Additional Measures of Progress
3. Work with the National Science Foundation (NSF), OAQPS, North Carolina State University and Spelman University.	1. Through a collaborative effort and an awarded grant from the NSF, work closely with participants to provide scientific analysis of air quality data	1. Conduct statistical analysis on criteria and air toxics data to better understand extent of impact of pollutants on air quality. 2. Provide research to management as a tool for decision making for enhancing air quality or implementing monitoring or additional analysis.
4. Improve data collection networks.	1. Work with states to redesign monitoring networks consistent with NCORE and National Monitoring Strategy goals Complete installation of PM _{2.5} monitors 2. PM _{2.5} monitoring network operation & PEP audit program 3. Advise/assist state/local/tribes with monitoring with the mercury deposition network (MDN) and in coordination with the Persistent Bioaccumulative toxics (PBT) national monitoring strategy.	1. Emerging air quality concerns identified 2. # of PM _{2.5} monitors audited 4 times/year 3. Increased number of sites in the southeast which contribute to the national MDN datasets.
5. Improve environmental measurements carried out in support of air monitoring activities, and ensure that the data are of known, documented and acceptable quality	1. Review/update field and laboratory Standard Operating Procedures to ensure validity and accuracy of measurements NELAP accreditation Documented Quality Systems Technical/Quality System Assessments	1. % of measurements taken that follow SOPs # NELAP accredited labs # approved QMPs and QAPPs
6. Improve the validity and accuracy of the data being submitted to EPA/States by facilities and their laboratories	1. Review/evaluate Excess Emission Reports Perform audits of environmental air monitoring data generated by States and facilities Evaluate methods of collecting, preserving and analyzing air monitoring data	1. % improvement in collection, preserving and analyzing air monitoring data by facilities, States, and Region
7. Improve data analyses capabilities	1. Region 4 GIS Team and Regional Vulnerability Analysis (ReVA) or other tools to evaluate ecological impacts of toxics. 2. Conduct air deposition analyses on mercury or nutrient loading in coordination with water quality reports such as Total Maximum Daily Level (TMDL) analyses, or studies with the Gulf of Mexico Program (GMP)	1. # of GIS-based and model-based reports 2. Number of TMDL or GMP reports which include where suitable evaluation or reduction of air pollution from reduced air pollution impact on water quality impact on water bodies.

Goal 2: Safe and Clean Water

Objective 2.1: Protect Human Health. Protect human health by reducing exposure to contaminants in drinking water, (including protecting source water), in fish and shellfish, and in recreational waters.

Regional Conditions:

Drinking Water: In FY2003, 96% of the population in Region 4 was served by community water systems meeting all health-based standards. 593 community water systems were in non-compliance (out of a total of 9570 systems).

Fish/Shellfish: In FY2003, 1,500 cumulative fish tissue samples were collected by States and the Region for fish advisory decisions for the National Fish Tissue Survey. In FY2003, the Region 4 States had 461 advisories according to the National Listing of Fish and Wildlife Advisories.

Swimming: At present, Regional conditions are unassessable due to lack of a fully implemented BEACH program in each State. Baseline advisory numbers from BEACH compliant programs will be available in FY2004 and added at that time.

Regional Approach*:

1. Through State Overviews/State personnel training the Region will assure that: 1) By 2008, the DWSRF fund utilization rate [cumulative dollar amount of loan agreements divided by cumulative funds available for projects] will reach 86%. 2) Each year through 2008, DWSRF loan agreements will return an average of 200 systems out of non compliance with health-based standards into compliance. 3) Region will ensure full compliance by states with their responsibility to conduct sanitary surveys at all community water systems once every three years. 4) Data Verifications will be given additional priority to assure SDWIS data integrity and States compliance with promulgated rules. 5) Targeted enforcement actions will be initiated to return significant non-compliers to compliance. 6) Selected State program oversight will be performed to enhance state staff capabilities and assure state capacity. 7) Review information in database to target UIC inspection efforts as well as track compliance of existing wells. Continue Class V inventory efforts. 7) Currently, 45% of the CWS in Region 4 have completed source water assessments and 50.5% of the population is served by those assessed CWS. Region 4 will provide technical assistance to the States to complete the assessments; work with Rural water technicians, under EPA contract, to focus on developing protection plans and training communities on how to keep the plan active; develop/participate in workshops with State/local/Federal agencies on how to activate and enforce current ordinances and existing regulations in local and State governments aimed to protect source waters; and target grant funding to those areas that are most vulnerability to contamination (SWAs, WHPAs, etc.).
2. For fish advisories/contamination, Region 4 will 1) continue to support State advisory programs through CWA Section 106 funding, 2) encourage States to move towards EPA's risk based consumption/advisory guidelines, and 3) assist in the development of TMDLs for those waterbodies listed as impaired for fish consumption.
3. For BEACH programs, Region 4 will 1) ensure State programs comply with the Federal BEACH Act (CWA Section 406) on issues of monitoring and notification, 2) ensure that all State data is reported to the National EPA BEACH database, and 3) assist in the development of TMDLs for those waterbodies listed as impaired for fish consumption.

*In November 2003, the Water Management Division had discussions with their R4 State Water Program Managers regarding the Regional Strategic Plan and have agreed to begin discussions on aligning common state/EPA environmental indicators to achieve the FY2004-2008 EPA Strategic Plan Goals and Objectives. Therefore, some of the primary measures of progress, tools & contacts, and outcomes/outputs will change as a result of these discussions. These discussions should be completed by July 1, 2004 and the Regional Strategic Plan for Goal 2 should be revised.

Sub-objective 2.1.1: Water Safe To Drink. By 2008, 95% of the population served by community water systems will receive drinking water that meets all applicable health-based drinking water standards. (2002 Baseline: 93.6% of population; note that year-to-year performance is expected to change over time as new standards take effect.)

Primary Measures of Progress:

% of Population Community Water Systems in Compliance with Health Based Standards: Pre 2002 Standards

% of Population Community Water Systems in Compliance with Health Based Standards: Post 2002 Standards

Quality of Health Based violation data in SDWIS

% of Drinking Water SRF Funds in loans compared to total funds available

% of Community Water Systems w/ completed source water assessments

% of community waters systems with protection programs in place

Indian Country population served by community water systems meeting health-based standards (R4 WMD)

Regional/National Strategic Targets	Tools and Contacts	Outcomes/Outputs/Time Frames
<p>By 2008, the percentage of the population served by community water systems that receives drinking water that meets health-based standards will be:</p> <ul style="list-style-type: none"> - 95 percent for those requirements with which systems need to comply as of December 2001. (2002 Baseline: 93.6 percent of the population)¹ - 80 percent for those requirements with a compliance date of January 2002 or later. (2002 Baseline: percent of population to be determined starting in January 2004 and revised as new standards take effect. Covered standards include: Stage 1 disinfectants and disinfection by-products/interim enhanced surface-water treatment rule/long-term enhanced surface water treatment rule/arsenic; year-to-year performance is expected to change as new standards take effect.) 	<p>Review of Intended Use Plan Review State Annual Reports Participate in National and State Workgroups State Overviews/State personnel training Quarterly tracking through Drinking Water National Information system (DWNIMS) DWSRF Coordinator: Carl Biemiller</p> <p>Participate in National Workgroups Primacy revision reviews and approval Technical assistance to State and PWS in the implementation existing regulation State staff training Compliance Assistance Small System Program, AWOP Data Integrity Targeted enforcement State Overview Technical Assistance to through NRWA & AWWA</p>	<p>Percent of population served by community drinking water systems with no violations during the year of any Federally enforceable health-based standards that were in place by 1994. (FY04 APM)</p> <p>Population served by community water systems providing drinking water meeting health-based standards promulgated in or after 1998. (FY04 APM)</p>

Regional/National Strategic Targets	Tools and Contacts	Outcomes/Outputs/Time Frames
	Participate in National Workgroups Primacy revision reviews and approval Technical assistance to State and PWS in the implementation existing regulation State staff training Compliance Assistance Small System Program, AWOP Data Integrity Targeted enforcement State Overview Technical Assistance to through NRWA & AWWA Contact: Chris Thomas	
<p>By 2008, the percentage of community water systems that provide drinking water that meets health-based standards will be:</p> <ul style="list-style-type: none"> - 95 percent for those requirements with which systems need to comply as of December 2001. (2002 Baseline: 91.6 percent of community water systems)² - 80 percent for those requirements with a compliance date of January 2002 or later. (2002 Baseline: percent of community water systems to be determined starting in January 2004 and revised as new standards take effect. Covered standards include: Stage 1 disinfection by-products/interim enhanced surface-water treatment rule/long-term enhanced surface-water treatment rule/arsenic; year-to-year performance is expected to change as new standards take effect.) 	Participate in National Workgroups Primacy revision reviews and approval Technical assistance to State and PWS in the implementation existing regulation State staff training Compliance Assistance Small System Program, AWOP Data Integrity Targeted enforcement State Overview Technical Assistance to through NRWA & AWWA Contact: Chris Thomas	% compliance with Total Coliform Rule and other specified rules # and types of tools developed for small systems compliance Number of States with updated primacy for all promulgated rules # of states using SDWIS/State as data base of record

Regional/National Strategic Targets	Tools and Contacts	Outcomes/Outputs/Time Frames
<p>By 2008, 95 percent of the population served by community water systems in Indian country will receive drinking water that meets all applicable health-based drinking-water standards. (2002 Baseline: 91.1 percent of the population served by systems. Year-to-year performance is expected to change as new standards take effect.)</p>	<p>Provide direct implementation of national drinking water standards program on Tribal Lands Tribal system Capacity Building Compliance Assistance Training and New & Existing PWSS program rules</p> <p>Contact: D. O’Lone and C. Thomas</p>	<p>% of tribal community and non-transient non-community water system with a certified operator % compliance with new standards within 5 years of promulgation</p>
<p>Implementation of Drinking Water Standards</p> <p>By 2008, the Drinking Water State Revolving Fund (DWSRF) will provide a \$1.70 Federal return on investment [cumulative dollar amount of assistance disbursements to systems divided by cumulative Federal outlays for projects].</p> <p>By 2008, the DWSRF fund utilization rate [cumulative dollar amount of loan agreements divided by cumulative funds available for projects] will reach 86%.</p>		<p>Number of DWSRF projects that have initiated operations</p> <p>The percentage of DWSRF loan agreements made annually that will return Community Water Systems to compliance.</p> <p>By December 2004, and each year thereafter, all states will be in compliance with requirement to conduct sanitary surveys at community water systems once every three years as documented by file audits of a random selection of water systems.</p> <p>By December 2004, and each year thereafter, all Tribal water systems will have undergone a sanitary survey within the past 3 years.</p>

Regional/National Strategic Targets	Tools and Contacts	Outcomes/Outputs/Time Frames
<p>Source Water Protection Programs</p> <p>By 2008, 50 percent of source water areas (both surface and ground water) for community water systems will achieve minimized risk to public health. (2002 Baseline: estimated to be 5 percent; “minimized risk” achieved by substantial implementation, as determined by the state, of source water protection actions in a source water protection strategy.)</p> <p>By 2015, in coordination with other federal agencies, reduce by 50 percent the number of households on tribal lands lacking access to safe drinking water. (2000 Baseline: Indian Health Service data indicating 31,000 homes on tribal lands lack access to safe drinking water.)</p> <p>By 2008, 75% of source water areas for community water systems (CWS) will have source water protection strategies in place. (cumulative)</p> <p>By 2008, 60% of source water areas for community water systems will have implemented some aspects of source water protection strategies. (cumulative)</p> <p>By 2008, delineated source water areas for 98% of community water systems will be available in a GIS digitized format using agreed upon data management protocols.</p> <p>By 2015, in coordination with other federal agency partners, reduce by 50% the number of households on Tribal lands lacking access to safe drinking water.</p> <p>By 2008, separately for each class of well, 100% of Classes I, II, II, V wells identified in violation will be addressed by the UIC program.</p>	<p>Provide any technical assistance needed for the completion of assessments.</p> <p>Ensure availability/notification of the assessments are included in the CCR or other vehicle for public access & notification of assessments.</p> <p>Communicate success stories and staff/web site contacts of assessments which have been posted to the WEB, newspaper, libraries or other public notification bulletins to the Region 4 states/tribes.</p> <p>Utilize the Region 4 and HQ website to provide a link to any State/RDC/University web site which have made the assessments available to public.</p> <p>Announce the availability of the assessments during any major conferences</p> <p>Seek and utilize grant funding to support local governments, and other stake holders specializing in groundwater and watershed protection.</p> <p>Work with Rural water technicians, under EPA contract, to focus on developing protection plans and training community on how to keep the plan active. Participate in and offer workshops to educate the public on protection activities.</p> <p>Develop workshops with State/local/Federal agencies on how to activate and enforce current ordinances and existing regulations in local and State governments aimed to protect source waters.</p> <p>Recognition to those communities/states/tribes which have attained protection goals</p> <p>Review information on database for UIC DI states. Continue the UIC well inventory efforts in Region 4's DI states.</p> <p>Explore the feasibility of utilizing the SEEP program for Class II inventory.</p>	<p>Number of community water systems and percent of population served by those CWSs that are implementing source water protection programs. (FY04 APM)</p> <p>Number of Tribal water systems that have completed a source water assessment consistent with national guidelines.</p> <p>The status of community water systems with source waters classified as high, moderate, or low for risk susceptibility.</p> <p>In 2004, and each year thereafter, identify at the State level the most prevalent and threatening categories of existing/potential sources of contamination for surface and ground water for Community Water Systems.</p>

Regional/National Strategic Targets	Tools and Contacts	Outcomes/Outputs/Time Frames
<p>By 2008, the number of people in the United States with access to safe drinking water will be increased.</p>	<p>Establish AWOP programs for surface water systems Provide Sanitary Survey training to states Ensure a establishment of good sanitary survey programs in the states Ensure the adoption and implementation of the cluster surface water rules Ensure the adoption and implementation of the GWR Provide targeted enforcement support to the states Ensure strict compliance with PWSS program rules State Programs oversight and Technical Assistance</p> <p>Contact: Chris Thomas</p>	<p>% population served by public water systems that received drinking water for which no violations of federally enforceable health standards have occurred</p>
<p>Reduce Waterborne Disease Attributable to Drinking Water</p>	<p>Establish AWOP programs for surface water systems Provide Sanitary Survey training to states Ensure a establishment of good sanitary survey programs in the states Ensure the adoption and implementation of the cluster surface water rules Ensure the adoption and implementation of the GWR Provide targeted enforcement support to the states Ensure strict compliance with PWSS program rules State Programs oversight and Technical Assistance</p> <p>Contact: Chris Thomas</p>	<p>% population served by public water systems that received drinking water for which no violations of federally enforceable health standards have occurred</p>

Detect, Contain, and Decontaminate Biological and Chemical Agents. Conduct leading-edge research to develop enhanced methods for detecting, containing, and decontaminating biological and chemical agents intentionally introduced into buildings and drinking water and wastewater systems, and methods for safe disposal of waste materials resulting from cleanups. Develop methods for conducting rapid assessments of risks to emergency response personnel and the public from potential homeland security threats.

Regional/National Strategic Targets	Tools, Contacts & Resources	Outcomes/Outputs/Time Frames
	Continue to participate in Counter-Terrorism technical work group to help develop training, exercises and equipment needs for responding to homeland security incidents	
	Improve internal and external communications and coordination through Regional Response Team meetings and leading homeland security exercises	
Work with HQ Water Protection Task Force (WPTF) on research efforts to identify methods to detect, contain and decontaminate biological and chemical agents.	Participate in conference calls with the WPTF. Attend water security conferences.	Comprehensive list of detection, containment and decontamination methods for use by water utilities in the event of a terrorist threat.
Work with the WPTF and other Regions in identifying monitoring equipment and analysis methods for rapid risk assessments.	Participate in conference calls with WPTF and/or other Regions.	List of monitoring equipment and analysis methods for specific contaminants.

Sub-objective 2.1.2: Fish and Shellfish Safe to Eat. By 2008, improve the quality of water and sediments to allow increased consumption of fish and shellfish as measured by the strategic targets described below.

Regional/National Strategic Targets	Tools and Contacts	Outcomes/Outputs/Time Frames
<p>By 2008, 85 percent of the shellfish-growing acres monitored by states will be approved for use. (1995 Baseline: 77 percent approved for use of 21.6 million acres monitored: 69 percent approved and 8 percent conditionally approved.)</p> <p>By 2008, fish tissue will be assessed to support waterbody-specific or regional consumption advisories, or a determination will be made that no consumption advice is necessary for at least 40% of lake acres and 20% of river miles.</p>	<p>CWA Section 106 Workplans will be modified to include monitoring and assessment for fish advisories. (Joel Hansel)</p> <p>CWA Section 106 Workplans will be modified to include adoption of the new fish tissue criterion for mercury. (Joel Hansel)</p> <p>Reporting will be conducted through 305(b) reports. (Chris Decker)</p> <p>At this time, without additional resources, the Region will not make added investments in the efforts above.</p> <p>Mercury Deposition Network (MDN)</p> <p>Persistent Bioaccumulative Toxics (PBT) Monitoring Strategy</p> <p>Mercury Total Maximum Daily Load (benchmark)</p> <p>Regional Vulnerability Assessment (ReVA) project</p>	<p>The percentage of states that monitor and assess fish tissue contamination based on national guidance.</p> <p>The number of states and authorized Tribes that have adopted the new fish tissue criterion for mercury.</p> <p>The number of states that are part of the Interstate Shellfish Sanitation Commission and participate in the national Shellfish Information Management System.</p>

Sub-objective 2.1.3: Water Safe for Swimming. By 2008, restore water quality to allow swimming in not less than 5% of the stream miles and lake acres identified by states in 2000 as having water quality unsafe for swimming. (2000 Baseline: approximately 90,000 stream miles and 2.6 million lake acres reported by states as not meeting a primary contact recreational use in the 2000 reports under section 305(b) of the Clean Water Act.)

Primary Measures of Progress:

Enterococci adopted for 6 coastal R4 states

Regional/National Strategic Targets	Tools and Contacts	Outcomes/Outputs/Time Frames
<p>By 2008, all 6 R4 coastal states will have adopted, for coastal recreational waters, water quality criteria for E. Coli and enterococci.</p> <p>By 2008, 100% of significant public beaches will be monitored and managed under the BEACH Act Program.</p> <p>By 2008, 75% of communities with CSOs will have schedules in place to implement approved Long Term Control Plans (LCTPs.)</p>	<p>Once EPA National Guidance is published, modify CWA Section 106 Workplans to include adoption of E.Coli and enterococci water quality criteria. (Joel Hansel)</p> <p>CWA Section 106 Workplans will be modified to target monitoring and assessment for primary recreational use support in significantly used waters. (Joel Hansel) (+0.5 FTE necessary to conduct follow up tracking on the success of targeted monitoring.)</p> <p>Review all CSOs to ensure implementation of CSO policy. (Roosevelt Childress/Alfreda Freeman)</p> <p>Review all major NPDES POTW s to ensure compliance with State Water Quality Standards for pathogens. (Roosevelt Childress)</p> <p>Provide BEACH Grants to Coastal States and assist with implementation. (+0.5 FTE and additional \$2,500 in travel funds needed for other than reactive implementation from Region 4.)</p>	<p>By 2010, ensure that all major NPDES POTW s include limits to comply with state water quality standards for pathogens.</p> <p>Number of States that have adopted the Voluntary Management Guidelines for On-site/Decentralized Wastewater Treatment Systems.</p> <p>Beaches for which monitoring and closure data is available to the public at http://www.epa.gov/OST/beaches. (FY04 APM)</p>

Objective 2.2: Protect Water Quality. Protect the quality of rivers, lakes and streams on a watershed basis and protect coastal and ocean waters.

Regional Conditions:

Percent of assessed river miles, lake acres and estuary square miles that have water quality supporting designated uses:

This data should not be used for comparing performance or level of effort between states because of a wide range of monitoring strategies, reporting methods and sampling protocols (i.e. some states use a single data point to assess an entire water body, while others use multi-site, multi parameter, long term monitoring studies.) In Alabama, the percentages of assessed river miles, lake acres, and estuary square miles supporting designated uses are 90%, 79% and 96% respectively. In Florida, the percentages of assessed river miles, lake acres, and estuary square miles supporting designated uses are 69%, 52% and 79% respectively. In Georgia, the percentages of assessed river miles, lake acres, and estuary square miles supporting designated uses are 75%, 86% and 99% respectively. In Kentucky, the percentages of assessed river miles and lake acres supporting designated uses are 78%, 98%. In Mississippi, the percentages of assessed river miles, lake acres, and estuary square miles supporting designated uses are 28%, 97% and 90% respectively. In North Carolina, the percentages of assessed river miles, lake acres, and estuary square miles supporting designated uses are 93%, 98% and 96% respectively. In South Carolina, the percentages of assessed river miles, lake acres, and estuary square miles supporting designated uses are 88%, 87% and 89% respectively. In Tennessee, the percentages of assessed river miles and lake acres supporting designated uses are 94% and 84%.

Percent of total state waters that are assessed:

This data should not be used for comparing performance or level of effort between states because of a wide range of monitoring strategies, reporting methods and sampling protocols (i.e. some states use a single data point to assess an entire water body, while others use multi-site, multi parameter, long term monitoring studies.) In Alabama, the percentages of the total state river miles, lake acres and estuary square miles are 25%, 95% and 89%, respectively. In Florida, the percentages of the total state river miles, lake acres and estuary square miles are 20%, 81% and 91%, respectively. In Georgia, the percentages of the total state river miles, lake acres and estuary square miles are 16%, 93% and 100%, respectively. In Kentucky, the percentages of the total state river miles and lake acres are 20% and 95%. In Mississippi, the percentages of the total state river miles, lake acres and estuary square miles are 18%, 58% and 81%, respectively. In North Carolina, the percentages of the total state river miles, lake acres and estuary square miles are 85%, 99% and 99%, respectively. In South Carolina, the percentages of the total state river miles, lake acres and estuary square miles are 52%, 76% and 55%, respectively. In Tennessee, the percentages of the total state river miles and lake acres are 49% and 99%.

Percent of assessed waters that are impaired:

This data should not be used for comparing performance or level of effort between states because of a wide range of monitoring strategies, reporting methods and sampling protocols (i.e. some states use a single data point to assess an entire water body, while others use multi-site, multi parameter, long term monitoring studies.) In Alabama, the percentages of assessed river miles, lake acres, and estuary square miles that are impaired are 10%, 21% and 4% respectively. In Florida, the percentages of assessed river miles, lake acres, and estuary square miles that are impaired are 31%, 48% and 21% respectively. In Georgia, the percentages of assessed river miles, lake acres, and estuary square miles that are impaired are 25%, 14% and 1% respectively. In Kentucky, the percentages of assessed river miles and lake acres that are impaired are 22% and 2%, respectively. In Mississippi, the percentages of assessed river miles, lake acres, and estuary square miles that are impaired are 72%, 3% and 10% respectively. In North Carolina, the percentages of assessed river miles, lake acres, and estuary square miles that are impaired are 7%, 2% and 4% respectively. In South Carolina, the percentages of assessed river miles, lake acres, and estuary square miles that are impaired are 12%, 13% and 11% respectively. In Tennessee, the percentages of assessed river miles and lake acres impaired are 6% and 16%, respectively. **NPDES Permitting:** XXX % Major and XXXX% Minor permits were current in R4 in FYXXXX, implementing permit conditions which protect human health and the environment through appropriate water quality based and technology based effluent limitations and in some cases utilizing innovative permitting mechanisms such as the use of general permits, watershed permits, and incorporating water quality trading opportunities in NPDES permits.

Regional Approach: Generally follows national program, with special emphasis on increasing the number of TMDLs developed and approved, to meet

deadlines associated with TMDL lawsuits. National Estuary programs, which form the majority of our efforts to improve coastal waters, are included in Goal 4, Objective 3.

Region 4, through permit overview and providing technical assistance to Regional states, will work with states to ensure timely issuance of NPDES permits, in consideration of the constraints that five (5) Regional states are implementing the rotating watershed permitting approach. The permits will contain conditions which will be protective of human health and the environment through the application of appropriate water quality based and technology based effluent limitations for all permit categories, e.g., industrial, municipal, MS4, CSO, industrial storm water, and CAFOs. The Region 4 NPDES program will issue timely and technically accurate permits for facilities on Tribal lands and offshore activities, e.g., oil and gas facilities. The NPDES program will actively promote and provide technical assistance in developing watershed permits and water quality trading opportunities with Region 4 states.

Sub-objective 2.2.1: Improve Water Quality on a Watershed Basis. By 2008, use both pollution prevention and restoration approaches, so that:

- in 600 of the Nation's watersheds, water quality standards are met in at least 80% of the assessed water segments (2002 Baseline: 453 watersheds of the total 2,262 USGS cataloguing unit scale watersheds across the Nation); and
- in 200 watersheds, all assessed water segments maintain their quality and at least 20% of assessed water segments show improvement above conditions as of 2002. (2002 Baseline: 0 USGS cataloguing unit scale watersheds).

Primary Measures of Progress

Number of outstanding Water Quality Standards Disapprovals

Timeliness of Triannual Reviews of Water Quality Standards

State Reports Water Quality Information to States at Least Annually

Nutrient Criteria (causal & response) Adopted for Lakes

Nutrient Criteria (causal & response) Adopted for Streams

% of Waterbodies Assessed for Primary Recreational use support over the past 5 years

% of Waterbodies Assessed for Aquatic life use support over the past 5 years

% of 1998 Impairments with established TMDLs or delisted for good cause

Probability monitoring network used by State for general assessment

% of Major Permits that are current

% of Minor Permits that are current

Documented load reductions and water quality improvements in annual report

% of Grant Drawdowns vs total dollars available (FY96-03)

Does the State have environmental criteria comparable to 404(b)(1) guidelines and active compliance assurance program in place to deter violations?

% of Major Dischargers in Significant Compliance

% of total CWA & SDWA SRF funds in loan status (as a % of funds available)

% Current of High Priority Permits - (expired \geq 2years)

Regional/National Strategic Targets	Tools and Contacts	Outcomes/Outputs/Time Frames
<p>By 2012, fully attain water quality standards in over 25 percent of those water bodies identified in 2000 as not attaining standards, with an interim milestone of restoring 5 percent of these waters by 2006. (2002 Baseline: 0 percent of the 255,408 miles and 6,803,419 acres of waters on 1998/2000 lists of impaired waters developed by states and approved by EPA under section 303(d) of the Clean Water Act.)³</p> <p>By 2008, reduce levels of phosphorus contamination in rivers and streams so that phosphorus levels are below levels of concern established by USGS or levels adopted by a state or authorized tribe in a water quality standard in:</p> <ul style="list-style-type: none"> - 55 percent of test sites for major rivers (1992-1998 Baseline: 50 percent) - 38 percent of test sites for urban streams (1992-1998 Baseline: 33 percent) - 30 percent of test sites for farmland streams (1992-1998 Baseline: 25 percent) 	<p>319 program/project grants; technical assistance. Implementation Plan to achieve National/Regional Strategic Targets and Outcomes/Outputs/Time Frames is included in the Section Workplan. Contact: Bill Cox - Watersheds and Nonpoint Source Section</p> <p>Using monitoring, water quality models and funding to the State of Florida, evaluate phosphorus control and treatment strategies to support the development and implementation of a numeric phosphorus criterion for the Everglades (SFO)</p>	<p>BMPs implemented achieving load reductions; GRTS data base information indicates load reductions.</p> <p>On a continuing basis, data are analyzed and reports are prepared evaluating phosphorus control strategies and threshold levels and impacts in the Everglades. (SFO)</p> <p>By 2006 review and approved appropriate numeric phosphorus criterion (10 ppb) for the Everglades. (SFO)</p>

Regional/National Strategic Targets	Tools and Contacts	Outcomes/Outputs/Time Frames
<p>[Water Quality Standards Component]</p> <p>By 2008, improve water quality in Indian country at not fewer than 90 monitoring stations in tribal waters for which baseline data are available (i.e., show at least a 10 percent improvement for each of four key parameters: total nitrogen, total phosphorus, dissolved oxygen, and fecal coliforms). (2002 Baseline: four key parameters available at 900 sampling stations in Indian country.)</p> <p>By 2015, in coordination with other federal partners, reduce by 50 percent the number of households on tribal lands lacking access to basic sanitation. (2000 Baseline: Indian Health Service data indicating that 71,000 households on tribal lands lack access to basic sanitation.)</p> <p>By 2008, 25 states will have adopted into their water quality standards, and EPA will have approved, nutrient criteria for fresh water (rivers/streams, lakes, and reservoirs).</p> <p>By 2008, 45 States will have adopted into their water quality programs for streams and small rivers, biological criteria designed to support determination of attainment of water quality standard use designations standards.</p> <p>Each year, 75% of State/Tribal water quality standards submissions are approved/ disapproved by EPA within 90 days.</p>	<p>Track State progress with triennial reviews. Set up Regional tracking system to follow review of submitted water quality standards changes. (Fritz Wagener)</p> <p>CWA Section 106 Workplans will be modified to include adoption of nutrient criteria for fresh water. Provide feedback and assistance to States in developing nutrient criteria. (Ed Decker)</p> <p>NOTE: To assist and promote adoption, of biological criteria, national guidance and additional regional resources (+1.0 FTE) are necessary.</p> <p>Track State progress with triennial reviews. Set up Regional tracking system to follow review of submitted water quality standards changes. (Fritz Wagener)</p> <p>CWA Section 106 Workplans will be modified to include adoption of nutrient criteria for fresh water. Provide feedback and assistance to States in developing nutrient criteria. (Ed Decker)</p> <p>NOTE: To assist and promote adoption, of biological criteria, national guidance and additional regional resources (+1.0 FTE) are necessary.</p>	<p>- Number of States & authorized Tribes that have completed a review of water quality standards within three years of the previous triennial review under Section 303(c) of the CWA..</p> <p>States with new or revised water quality standards that EPA has reviewed and approved or disapproved and promulgated federal replacement standards. (FY04 APM)</p> <p>Tribes with water quality standards adopted and approved. (FY04 APM)</p> <p>- Number of States & authorized Tribes that have completed a review of water quality standards within three years of the previous triennial review under Section 303(c) of the CWA..</p> <p>States with new or revised water quality standards that EPA has reviewed and approved or disapproved and promulgated federal replacement standards. (FY04 APM)</p> <p>Tribes with water quality standards adopted and approved. (FY04 APM)</p>

Regional/National Strategic Targets	Tools and Contacts	Outcomes/Outputs/Time Frames
<p>[Monitoring & Assessment Component]</p> <p>By 2005 and in each year thereafter, 100% of States will have adopted and begun implementing a comprehensive monitoring strategy [including a State approach to putting data into STORET] consistent with national guidance. (March 2003 guidance describing 10 key monitoring program elements)</p> <p>Starting in 2006, 100% of States will provide comprehensive integrated assessments of the condition of their waters consistent with Sections 305(b) and 303(d) of the CWA.</p> <p>By 2008, EPA will have supported the development of tribal water monitoring programs so that 1 R4 tribe provides comprehensive assessments of the condition of their waters as called for under Section 305(b) and 303(d) of the CWA consistent with national guidance.</p>	<p>Once finalized, implement the 10 Elements of a State Monitoring Program guidance through modification of the 106 workplan and general overall tracking & promotion. (Chris Decker)</p> <p>In cooperation with the Department of Interior and the State of Florida, an e-map based monitoring program has been established and is being continued in the Everglades to assess its overall health and condition -focusing particularly on phosphorus and mercury. (SFO)</p>	<p>By 2005 complete an additional round of sampling in the Everglades during wet and dry seasons and publish a report of the monitoring results. (SFO)</p>
<p>[Watershed Planning, TMDLs, and Nonpoint Source]</p> <p>By 2008, at least 50 watershed based plans (covering 5,000 miles), supported under State Nonpoint Source Programs (section 319) since the beginning of FY 2002 will have been substantially implemented.</p> <p>By 2008, foster a watershed approach to protecting and restoring water quality in not less than 100 watersheds of national significance using Watershed Initiative grant assistance.</p>	<p>319 program/project grants with states; technical assistance; 104b3 State Wetlands grants. Implementation Plan to achieve National/Regional Strategic Targets and Outcomes/Outputs/Time Frames is included in the Section Workplan. Contact: Bill Cox - Watersheds and Nonpoint Source Section</p>	<p>The number of watershed based plans (and water miles/acres covered), supported under State Nonpoint Source Program (Section 319) since the beginning of FY2002 that are under development and the number of watershed based plans, (and water miles/acres covered), where watershed based plans are being implemented.</p>

Regional/National Strategic Targets	Tools and Contacts	Outcomes/Outputs/Time Frames
<p>By 2008, 75 percent of the impairments for waters on the 1998 303(d) list will have TMDLs established or approved by EPA or have been delisted with good cause. Annual targets will be based on state schedules or straight line rates that ensure that the national policy is met.</p> <p>By 2008, working with stakeholders, improve water quality within the Miami River Basin through implementation of the Miami River dredging project and non-point source control programs (SFO)</p>	<p>Review and approve State 303(d) Lists. (Ken Dean) (+0.6 FTE Needed to review Florida's Annual Listing Process)</p> <p>Track TMDL development progress with regards to consent decrees and submitted TMDL development schedules. Comply with consent decree requirements. Cecilia Harper (+3 FTE needed to increase quality of TMDLs established.)</p> <p>319 program/project grants with states. (Watersheds and Nonpoint Source Section)</p> <p>Develop Total Maximum Daily Loads (TMDL's) for Lake Okeechobee—the primary or secondary source of drinking water for large portions of South Florida. (SFO)</p> <p>Provide technical support to Miami River dredging and storm water committees addressing the proper removal and upland disposal of contaminated sediment, as well as storm water monitoring and improvements adversely impacted by urban runoff. (SFO)</p> <p>Mercury Deposition Network (MDN) data</p> <p>Persistent Bioaccumulative Toxics (PBT) Monitoring Strategy</p>	<p>State-established TMDL approved (FY04APM)</p> <p>TMDLs established by EPA (FY04 APM)</p> <p>The percentage of TMDLs approved since the beginning of 2004 that were developed as part of a larger, watershed planning process that addressed restoration and protection of all waters within a watershed.</p> <p>Percentage of TMDL approvals occurring since the beginning of FY04 for which EPA took approval action within 30 days of submission.</p> <p>Number and dollar value of projects financed with Clean Water SRF loans to prevent polluted runoff.</p> <p>By 2008 develop TMDLs for the Lake Okeechobee watershed. (SFO)</p> <p>Working with all stakeholders, prepare annual reports on water quality improvements in the Miami River Basin. (SFO)</p>

Regional/National Strategic Targets	Tools and Contacts	Outcomes/Outputs/Time Frames
<p>Permitting and National Regulations</p> <p>Each year, 90% of all NPDES permits are considered current and, beginning in 2005, 95% of high priority permits are also current.</p> <p>By 2005, all States will have updated regulations and/or statutes where necessary to reflect new CAFO requirements; by 2006, all States will have issued Statewide general permits, or otherwise substantially implemented the permit program, consistent with these new requirements.</p>	<p>Review of state draft permits, including general permits and state priority permits, for major and minor primary facilities to help facilitate the timely issuance of technically accurate NPDES permits. Provide technical assistance in major and minor primary & priority permit development. Contact: Dee Stewart</p> <p>Review of state draft permits, including general permits, for CAFO facilities to help facilitate the timely issuance of technically accurate NPDES permits. Provide technical assistance in CAFO permit development. Contact: Sam Sampath</p> <p>Review of state draft permits, including general permits, for MS4 facilities to help facilitate the timely issuance of technically accurate NPDES permits. Provide technical assistance in MS4 permit development. Contact: Mike Mitchell</p> <p>Review of state draft permits, including general permits, for regulated industrial storm water dischargers to help facilitate the timely issuance of technically accurate NPDES permits. Provide technical assistance in industrial storm water permit development. Contact: Floyd Wellborn</p> <p>Track and report current permit issuance for all R4 states. Utilize this information to target assistance to states. Contact: Gina Fonzi</p> <p>Assist states to adopt new CAFO regulations and/or statutes by 2005. Contact: Sam Sampath</p>	<p>90% Major point sources that are covered by current permits. (FY04 APM)</p> <p>87% Minor point sources that are covered by current permits. (FY04 APM)</p> <p>Percentage of Significant Industrial Users (SIUs) in POTWs with pretreatment programs and percentage of known Categorical Industrial Users (CIUs) in non-pretreatment POTWs that have control mechanisms in place that implement applicable pretreatment requirements.</p> <p>Loading reductions (pounds per year) of toxic, non-conventional, and conventional pollutants from NPDES permitted facilities. (FY04 APM)</p> <p>Number of discharges with permits providing for trading between the discharger and other water pollution sources and the number of dischargers that carried out trades.</p> <p>Number of watersheds in which a watershed permit(s) had been issued and the number of states issuing NPDES permits using a rotating basin process.</p>

Regional/National Strategic Targets	Tools and Contacts	Outcomes/Outputs/Time Frames
<p>By 2008, 100% of States/Regions will have issued NPDES general permits requiring storm water management programs for Phase II municipalities (MS4s) (estimated annual load reduction of 4.1 billion pounds of pollutants.)</p> <p>By 2008, 100% of States/Regions will have issued NPDES general permits requiring storm water pollution prevention plans for Phase II construction (estimated annual load reduction of 17 billion pounds of pollutants).</p> <p>By 2008, reduce pollution loadings to waterbodies from industrial dischargers by an estimated 2.4 billion pounds of pollutants [2004-2008] as a result of national industrial water pollution control regulations.</p> <p>Estimated annual reduction in pounds of pollutants discharged to waters as a result of NPDES permits for storm water, POTWs, CAFOs, CSOs, and industrial discharges.</p> <p>By 2006, using the planning process called for in section 304(m) of the Clean Water Act, identify any industrial categories where discharges to waterbodies or releases to</p>	<p>Develop and issue technically accurate and legally defensible NPDES permits for dischargers on tribal lands. Contact: Floyd Wellborn</p> <p>In Region 4 the national pretreatment program is implemented by the Water Programs Enforcement Branch, providing: permitting technical assistance, responses to formal requests for categorical permit determinations, compliance inspections/audits of approved programs in consultation with the states, permitting and compliance oversight for the Miami-Dade program (direct implementation), and audits of state program implementation (both 403 and 403.10[e] arrangements). The core performance measure reported annually to OW is the number and percentage of approved pretreatment programs in the Region which receive a more comprehensive compliance audit during the inspection year, effecting a goal that all approved programs be audited within a five-year cycle. Contact: David R. Phillips</p> <p>Report to EPA HQs the number of facilities in defined SIC codes used to calculate the loading reductions (pounds/year) of toxic, non-conventional, and conventional pollutants from NPDES permitted facilities. Contact: Dee Stewart</p> <p>Support the development of Watershed permitting in R4 through technical assistance to states and track the number of watershed permits and the number of states issuing NPDES permits using a rotating basing approach. Contact: Dee Stewart</p>	<p>Percent of NPDES program authorities where a comprehensive assessment of NPDES program integrity had been conducted (beginning in FY04) and the percentage of assessed programs that are complying with implementation schedules for all those follow-up actions for which a schedule had been established.</p>

Regional/National Strategic Targets	Tools and Contacts	Outcomes/Outputs/Time Frames
<p>Publicly Owned Treatment Works (POTW s) pose a significant risk to water quality and determine whether to develop new national pollution control regulations, revise existing regulations, or develop other control tools.</p>	<p>Support the development of water quality trading through technical assistance to states and track the number of NPDES permits that provide for trading. Contact: Dee Stewart</p> <p>Work with states to implement Permitting for Environmental Results and track the percentage of assessed state programs. Contact: Dee Stewart</p>	
<p>State Revolving Fund</p> <p>By 2008, the CWSRF fund utilization rate [cumulative loan agreement dollars to the cumulative funds available for projects] will reach 94%.</p> <p>By 2008, the return on Federal investment [cumulative dollar amount of assistance disbursements to projects divided by cumulative Federal outlays for projects] will reach \$2.37.</p> <p>By 2008, 28 states will be using integrated planning and priority systems to make CWSRF funding decisions.</p>	<ul style="list-style-type: none"> -R4 SRF Coordinator in partnership with States Contact: Dorothy Rayfield / Sheryl Parsons - R4 SRF Coordinator in partnership with States Contact: Dorothy Rayfield / Sheryl Parsons - R4 SRF Coordinator in partnership with States Contact: Dorothy Rayfield / Sheryl Parsons - R4 SRF Coordinator in partnership with Tribes and WMD Tribal Coordinator Contact: Dorothy Rayfield / Walter Hunter - Need HQ release of SSO Rule; R4 will continue to address the Management, Operation and Maintenance of POTW s with watershed efforts Contact: Doug Mundrick - Need HQ guidance on Special Project STAG procedures; will monitor progress with Region 4 SPAP management tracking system Contact: Dorothy Rayfield 	<p>10,440 CW SRF projects that have initiated operations (FY04 APM)</p>

Sub-objective 2.2.2: Improve Coastal and Ocean Waters. By 2008, prevent water pollution and protect coastal and ocean systems to improve national and regional coastal aquatic ecosystem health by at least 0.2 points on the “good/fair/poor” scale of the National Coastal Condition Report. (2002 Baseline: National rating of “fair/poor” or 2.4, where the rating is based on a 5-point system in which 1 is poor and 5 is good, and is expressed as an areally- weighted mean of regional scores using the National Coastal Condition Report indicators addressing water clarity, dissolved oxygen, coastal wetlands loss, eutrophic conditions, sediment contamination, benthic health, and fish tissue contamination.)

Regional/National Strategic Targets	Tools and Contacts	Outcomes/Outputs/Time Frames
By 2008, 90% of Special Project STAG grants will be closed within 7 years of award	R4 Grants & Technical Assistance Section will monitor this target.	By 2008, 90% of Special Appropriation Grants will be closed within 7 years.
<p>By 2008, maintain water clarity and dissolved oxygen in coastal waters at the national levels reported in the 2002 National Coastal Condition Report. (2002 Baseline: 4.3 for water clarity; 4.5 for dissolved oxygen.)</p> <p>By 2008, improve ratings reported on the national “good/fair/poor” scale of the National Coastal Condition Report for:</p> <ul style="list-style-type: none"> – Coastal wetlands loss by at least 0.2 points (2002 Baseline: 1.4) 	<p>COE Mandate-Region not often involved-Regional Dredging Team. Dredged Material Management Plans Regional Dredging Team 404 Program. Implementation Plan to achieve National/Regional Strategic Targets and Outcomes/Outputs/Time Frames is included in the Section Workplan. Contact: Bo Crum - Coastal Section</p> <p>EPM Funds/Applicant participation/States R4 staff. Contact: Bo Crum - Coastal Section</p> <p>To work with R4 coastal states in development of numeric nutrient criteria to protect coastal and estuary waters through on-going EPA National Nutrient Strategy. Contact: Ed Decker, Region 4 Nutrient Criteria Coordinator</p>	<p>Number of dredged material management plans that are in place for major ports and harbors developed by COE led stakeholder process and the percentage of dredged material from coastal waters that is managed in a beneficial manner.</p> <p>Number of ocean disposal sites with approved site management and monitoring plans that are monitored in the reporting year, including those monitored by EPA’s Ocean Survey Vessel, Peter W. Anderson.</p> <p>Region 4 and States are working toward mutual agreement on State Nutrient Plans in FY03, which will describe each State's approach to development & implementation of numeric criteria for nutrients, including coverage and time frame for addressing the State's estuary and near coastal waters with protective water quality standards for nutrients.</p>

Regional/National Strategic Targets	Tools and Contacts	Outcomes/Outputs/Time Frames
<ul style="list-style-type: none"> – Contamination of sediments in coastal waters by at least 0.2 points (2002 Baseline: 1.3) – Benthic quality by at least 0.2 points (2002 Baseline: 1.4) – Eutrophic conditions by at least 0.2 points (2002 Baseline: 1.7) <p>By 2010, in cooperation with other nations, federal agencies, states, tribes, and local governments, reduce the rate of increase in the number of invasions by non-native invertebrate and algae species of marine and estuarine waters. (2000 Baseline: rate of increase approximately 1 percent per year.)</p>	<p>404 permit reviews to minimize, avoid and mitigate for wetlands losses; State Wetland Program Development Grants; technical assistance. Contact: Ron Mikulak - Wetlands Regulatory Section</p>	<p>Number of coastal States in which there is a least one mercury deposition monitoring station.</p>

Objective 2.3: Science/Research. Provide and apply a sound scientific foundation to EPA's goal of clean and safe water by conducting leading-edge research and developing a better understanding and characterization of the environmental outcomes under Goal 2.

Sub-objective 2.3.1: Apply the Best Available Science. By 2008, apply the best available science (e.g., tools, technologies, and scientific information) to support Agency regulations and decisionmaking for current and future environmental and human health hazards related to reducing exposure to contaminants in drinking water, fish and shellfish, and recreational waters and protecting aquatic ecosystems.

Sub-objective 2.3.2: Conduct Leading-Edge Research. By 2008, conduct leading-edge, sound scientific research to support the protection of human health through the reduction of human exposure to contaminants in drinking water, fish and shellfish, and recreational waters and to support the protection of aquatic ecosystems— specifically, the quality of rivers, lakes and streams, and coastal and ocean waters.

Regional/National Strategic Targets	Tools and Contacts	Outcomes/Outputs/Time Frames
<p>Research to address the utility and effectiveness of alternative bacterial indicators of fecal contamination and the application of fairly new DNA-based technology</p>	<p>Joint project with SESD (Bonita Johnson)and NERL</p> <p>a) microbial source tracking using nucleic-acid based method - amplified fragment length polymorphisms (AFLP) and fluorescence-based DNA sequencers.</p> <p>b) a study that simultaneously examines the presence and relationship of 3 bacterial indicators during storm conditions.</p>	<p>Method for identifying probable sources of pathogenic contamination in our nation’s waters.</p> <p>Contribution to the ongoing development of a database for the development of sampling protocols and field testing of Multimedia Exposure Models (MEM) and development of Total Daily Maximum Loads (TMDL) protocols for use by EPA Regions, OW, and states.</p>

Sub-Objective 3.2: Science. By 2008, apply the best available science (i.e., tools, technologies and scientific information) to support Agency regulations and decision making for current and future environmental and human health hazards related to reducing exposure to contaminants in drinking water, fish and shellfish, and recreational waters and the protection of aquatic ecosystems.

Regional/National Strategic Targets	Tools and Contacts	Outcomes/Outputs/Time Frames
By 2006, biological indices for measuring the health of coral reefs and guidance for the protection of back reef ecosystems (i.e., mangroves, sea grass beds, and sand flats) will be established.	International Transport of Air Pollutants (ITAP) Workgroup - coordination of international investigations	
Monitoring of indicator species	Mercury Deposition Network	Detect significant trends
New monitoring and analysis	Persistent Bioaccumulative Toxics (PBT) Monitoring Strategy	Obtain regional-specific trend analysis
Increased communication among Region IV offices concerning the Gulf Program		Develop new understanding of risk and more focused and complete risk management

1.U.S. Environmental Protection Agency, Office of Ground Water and Drinking Water Accessing, Drinking Water Data in SDWIS/Fed (Safe Drinking Water Information System/Federal Version) Web Site, <http://www.epa.gov/safewater/data/getdata.html>.

2.U.S. Environmental Protection Agency, Office of Ground Water and Drinking Water Accessing, Drinking Water Data in SDWIS/Fed (Safe Drinking Water Information System/Federal Version) Web Site, <http://www.epa.gov/safewater/data/getdata.html>.

GOAL #3: Land Preservation and Restoration

Objective 1: Preserve Land - By 2008, reduce adverse effects to land by reducing waste generation, increasing recycling, and ensuring proper management of waste and petroleum products at facilities in ways that prevent releases.

Human Capital:

EPA's state, tribal, and local partners need technical assistance, training, and outreach tools to promote conservation and recovery of materials and energy. The Agency will use communications technology, such as teleconferencing and Internet-based conferencing, to provide just-in-time technical training to EPA's employees and partners. The training will assist them in making environmental indicator determinations, minimizing risks of exposure to hazardous waste, and addressing problems at corrective action facilities. Region 4 activities described below focus on this kind of support to our state, tribal, local and other federal partners.

Sub-Objective 1.1: Reduce Waste Generation and Increase Recycling.

Regional Conditions:

Solid Waste/Recycling*: Extensive support to State solid waste and recycling programs, complements support of national initiatives, however, at State and Regional level the resources can't match demand. Compromises are needed.

****Regionally, measuring performance on recycling does not work because there is no consistent way to report recycling rates. R4 approached states on this issue but was met with a great deal of resistance. Although most R4 states have goals, they are typically very different. One state may measure recycling rates while another measures diversion rates. Another issue is what materials each state allows to be counted in their definition of municipal solid waste varies widely.***

Regional Approach: Generally follows National program with differences noted in matrix below.

Primary Measures of Progress:

There are no Region 4 Primary Measures for sub-objective 3.1.1 because Region 4 states to not collect this information in a measurable, consistent manner. The Region tracks the outputs shown in the matrix below (# individuals/companies reached, # of proposals reviewed/funded, and increase in tribal projects). Headquarters tracks the following Primary Measures of Progress:

Maintain national average municipal solid waste generation rate at no more than 4.5 pounds per day per person
Increase recycling of total annual municipal solid waste produced to 35 percent from 31 percent (2002 base)

Regional/National Strategic Targets	Tools, Contacts & Resources	Outcomes/Outputs/Time Frames
<p>3.1.1 By 2008, reduce materials use through product and process redesign, and increase materials and energy recovery from wastes otherwise requiring disposal.</p>	<p>Reducing Waste and Recovering Energy through Challenge Partnerships, Stimulating Infrastructure Development, Product Stewardship and New Technologies. Support the new Resource Conservation Challenge. Extensive support of our State programs.</p> <p>A. WasteWise Partnership Program: 2 R4 States now WasteWise Endorsers <i>[R4 interested in providing on-site assistance to partners for facility assessments and improved measurement and reporting].</i></p> <p>B. National Waste Minimization Partnership Program <i>[R4 to contact 2]</i></p> <p>C. Innovations Work Group: R4 has 2 projects supported (“Testing the Viability of Converting Wood Pallet Waste-to-Flooring,” \$29K; “Building Deconstruction and Reuse”, \$37,858) <i>R4 participates as resources available.</i></p> <p>D. Carpet Recycling Initiative – regional/state priority for high presence sector</p> <p>E. Electronics Recycling Initiative: Working closely with States to support 2 national conferences for compliance assistance, “Mobile Bay Area Electronics Management and Recycling Workshop and Collection Event with Hands-On-Training,” with R5 to fund Univ. of FL project on toxicity issues for computer monitors and keyboards.</p> <p>F. Tire Program: Managing the National Tire List serve created by R4, with R5 & R6 sponsored management conference, and support the R4 Annual State Tire Regulators Meeting.</p> <p>G. Jobs Through Recycling (JTR): Since 1994, 5 of 8 States spurred innovation and economic development through this grant program. <i>[R4 feels this grant program, which embodied very measurable results, was eliminated prematurely.]</i></p> <p>H. States Managers’ Meeting: Collaborative forum for joint priority setting</p> <p>I. Atlanta ties Federal Center Recycling Program: support to federal efforts</p> <p>J. Deconstruction Initiative: 3 ongoing projects support other feds and military</p> <p>K. Construction and Demolition Debris Recycling Initiative: R4 interest reflects high growth rate in region.</p> <p>L. Organic Materials Management (OMM): outreach and assistance on composting.</p> <p>M. Recycle Guys Campaign: 30 second Public Service Announcements (PSAs) reaching beyond R4 area.</p>	<p># of individuals reached</p> <p># of companies contacted</p>

Regional/National Strategic Targets	Tools, Contacts & Resources	Outcomes/Outputs/Time Frames
Tribal Solid Waste Programs	<p>Increase # of tribal projects under Cooperative Agreements that can be transferred to Native American Tribes for their use. Increase participation by tribal youth and communities in management of solid waste.</p> <p>Continue assisting tribes with developing, maintaining, and expanding sustainable solid waste mgt. programs (build capacity). Maintain adequate levels of annual funding via Cooperative Assistance Agreements that will allow sustainability. Provide guidance and assistance on open dump cleanup projects and the educational and outreach efforts to prevent open dumping and open burning. Focus on increased participation by tribal youth and communities in the mgt. of solid waste.</p>	<p># solid waste, recycling, and waste reduction proposals reviewed, funded, and managed</p> <p>Increase the number of tribal projects under Cooperative Assistance Agreements that can be transferred to other tribes for their beneficial use.</p>

Sub-objective 1.2: Manage Hazardous Wastes and Petroleum Products Properly.

Regional Conditions:

RCRA Hazardous Waste Management Facilities: RCRA enforcement is a part of Goal 5, Objective 2.

Oil Program 2002: The Regional Oil Program emphasis was on prevention and preparedness. A record number of SPCC seminars (14) were presented to the regulated community. A total of 750 people were trained during these seminars. 24 Prep Drills were conducted at Oil Storage facilities that must have a Facility Response Plan under the Clean Water Act. The Oil Spill Expedited Enforcement Program (SEEP2) collected \$101,000 against 65 violators. Continued to conduct SPCC and FRP inspections.

UST Program: FY 2002 -- 165,007 active tanks, including 10,126 temporarily out of service tanks; 77% operational compliance rate; 334,999 closed tanks.

Regional Approach: Generally follows National program with differences noted in matrix below.

Primary Measures of Progress:

Increase number of facilities with permits or other approved controls from 79 percent (2002 base) to 95 percent (Total Universe – 2750 facilities)

Update controls for preventing releases at 150 facilities due for permit renewal by 2006

Reduce hazardous waste combustion facility emissions of dioxins/furans by 90% from 880grams/year & particulate matter by 50% from 9,500 tons/year (94 levels)

Increase percentage of UST facilities in significant operational compliance (for leak detection and leak prevention) to 60 percent (R4 Universe – approximately 64,000)

Limit number of confirmed releases at UST facilities to no more than 2,000 (FY 99-FY 02, R4 average 2,254 per year)

Regional/National Strategic Targets	Tools, Contacts & Resources	Outcomes/Outputs/Time Frames
3.1.2 By 2008, reduce releases to the environment by managing hazardous wastes and petroleum products properly.	Control human exposure to contamination at high-priority RCRA facilities. Control migration of contaminated groundwater at high-priority RCRA facilities Issue Permits Enforce Permits and unregulated releases/contamination (see Goal 5, Objective 2)	# Corrective Action Complete # Corrective Action Complete # Permits Issued Oversee State Programs
	Manage State UST grants Develop, approve, and oversee State programs Provide technical assistance to states, regulated community and program stakeholders. Conduct Federal-lead inspections and enforcement Actions. Federal Implementation of UST Program on Indian Land	Reduce new UST releases # facilities in compliance

Objective 2: Restore Land - By 2008, control the risks to human health and the environment by mitigating the impact of accidental or intentional releases and by cleaning up and restoring contaminated sites or properties to appropriate levels.

Regional Conditions:

Workload/FTEs	RCRA	Superfund	LUST	Total FTE Allowance
National Program	3,822 Active Corrective Action Facilities	10,015 Active Sites 848 Construct. Completions	139,513 Active LUST Sites	2,642 (WASTE FY02) 62.2 (LUST - FY 03)
Regional Program (% of National)	576 Active Corrective Action Facilities (15%)	2150 Active Sites (21.5%) 130 Federal Facility Sites 123 Construct. Completions (14.5%)	38,969 Active LUST Sites	340.9 (FY03 312 on Board) (12.9% of National Total) 6 FTEs (LUST - FY 03)

Sensitive Population Data (National/Regional and Regional % of National Totals)			
	Black	Hispanic/Latino	Poverty
National – 281,421,906	34,614,894 (12.3%)	35,177,738 (12.5%)	32,644,941 (11.6%)
Regional – 53,252,966 (19%)	11,022,083 (32%)	3,894,744 (11%)	6,885,503 (21.1%)

Regional Approach:

Community Involvement/Environmental Justice Workload: Regional focus on CI and EJ due to high sensitive population in Region 4 (43% minority and 21% poverty) creates greater workload burdens.

Human Capital:

Up-to-date information and effective management are critical when responding to emergencies. EPA will train field responders in state-of-the-art techniques for detecting, analyzing, and responding to chemical, biological, and radiological agents and provide information on emerging threats on a continuing basis, and train in incident-command-system-response management. Region 4 activities described below focus on this kind of support to field responders at the state and local levels.

Sub-objective 2.1: Prepare for and Respond to Accidental and Intentional Releases.

Regional Conditions: These appear under Objective 2 Regional Conditions above and in Regional Approach below.

Regional Approach:

Homeland Security 2002: Preparedness efforts have been a focal point of the Regional Response Team (RRT) meetings resulting in better coordination between R 4 states and other federal RRT member agencies on homeland security issues. R4 has also been given the lead in coordinating a regional (R3, 4 and 5) homeland security functional exercise to test response and coordination capabilities on a multi-regional level. R4 has expended significant effort on preparedness activities for homeland security response since 9/11. An influx of resources from EPA Headquarters for five additional (net increase of four) OSCs, state-of-the art response equipment and dollars for training provided needed resources for the homeland security response program. These activities will continue to be the main priority effort for our program for the next few years. National OSC compensation package, GS-14 OSC positions, special position description (classification).

Emergency Response 2002: Responded to 130 emergency incidents, 56 oil and 74 hazardous substances spills. 3258 spill notifications were received and evaluated. ERRB spent \$3,048,000 in OPA response trust funds for oil spill cleanup. Six out-posted OSCs greatly enhance our response and preparedness activities. These OSCs have been very well received by the state response programs and they provide an invaluable resource for enhancing state response efforts.

Superfund Removal Program 2002: Started 44 Superfund removal actions (33 fund and 11 PRP lead) this year and obligated \$22,574,515 in removal advice of allowance funds. Of the 33 fund lead removal starts, 24 were initiated as emergency responses under the OSC's authority. Nine of the 11 PRP lead removals were associated with the Tenneco Pipeline non-critical removal. R4 received 28 referrals of potential sites, mostly from state environmental agencies and conducted 25 removal site assessments. Establish and/or enhance state and tribal programs through use of CERCLA Section 128(a) grants.

Primary Measures of Progress: Follows national targets with regional additions included here and in the matrix below.

Increase response readiness by 10 percent from 2003 baseline (core emergency response criteria)

homeland security exercise

homeland security training sessions

of Regional Response Team meetings

of EPA and Industry led drills and exercises conducted

of Emergency Response/Homeland Security outreach seminars given to States and local response organizations

of SPCC/FRP inspections and plan reviews

of SPCC/FRP outreach seminars given

responses initiated to hazardous substances and to oil spills

Regional/National Strategic Targets	Tools and Contacts	Outcomes/Outputs/Time Frames
<p>3.2.1 By 2008, reduce and control the risks posed by accidental and intentional releases of harmful substances by improving our Nation's (our Region's) capability to prepare for and respond more effectively to these emergencies.</p>	<p>Capability Assessment through continual improvement under CORE ER program (evaluation of 12 elements) Work with federal, State and local partners to improve readiness through use of drills and exercises Conduct outreach with State and local and local response organizations to improve their capability Enhance equipment and training to improve response readiness</p> <p>Resources: Bring # of OSCs to FY02 baseline 27 plus 5 (Total 32 OSCs)</p>	<p># State staff trained # Seminars for State and local response organizations # EPA and Industry led drills and exercises conducted</p>
<p>Each year through 2008, respond to 350 hazardous substance releases and 300 oil spills.</p>	<p>Use of CERCLA enforcement authority to force PRPs to mitigate effects of hazardous substances releases Use contractors funded from Removal AOA to mitigate effects of hazardous substances release where PRPs are absent, incapable or unwilling Use of CERCLA enforcement authority to force PRPs to mitigate effects of releases or threatened releases that pose time-critical threat to public or environment Use contractors funded from Removal AOA to mitigate effects of releases or threatened releases that pose time-critical threat to public or environment where PRPs are absent, incapable or unwilling Maintain a dedicated team of OCS to receive spill notifications and respond to spills.</p>	<p>#state/tribal actions reviewed # emergency removals initiated and conducted by state, PRPs, R4 # enforcement actions # spill notifications reviewed # responses to spills</p>
<p>Develop methods for conducting rapid assessments of risks to emergency response personnel and the public from potential homeland security threats.</p>	<p>Work with Water Management Division and Headquarters to develop methods Improve internal and external communications and coordination through (RRT) Regional Response Team meetings and leading homeland security exercises.</p>	<p>Comprehensive list of detection, containment and decontamination methods for use by water utilities in the event of a terrorist threat.</p>
<p>Each year through 2008, minimize impacts of potential oil spills by inspecting or conducting exercises or drills at 6 percent of approximately 6000 oil storage facilities required to have FRPs. (30% inspected FY97-2002)</p>	<p>EPA will concentrate on outreach seminars, program support, compliance assistance, participation in national initiatives (inspector training, rule making, etc...) and inspections Continue to implement the successful Oil Spill and SPCC expedited settlement enforcement actions Conduct Facility Response Plans (FRP) and SPCC inspection</p>	<p># risk management plans reviewed # outreach seminars # compliance assistance # expedited enforcement actions # FRP/SPCC inspections</p>

Sub-objective 2.2: Clean Up and Re-use Contaminated Land.

Regional Conditions: These appear under Objective 2 Regional Conditions above and in Regional Approach below.

Regional Approach:

Superfund Program: Since 1980, the R4 Superfund program, along with State partners, has assessed 6,940 Sites (15% of the national total assessed). To date, 4,757 Sites in Region 4 have been removed from the Superfund inventory to help encourage economic redevelopment, while 2,183 Sites (19% of the national total) remain active. In Region 4, 166 Sites are proposed or final on the National Priorities List (NPL). 35 active Sites are being handled as Superfund Alternative Sites, where PRPs will perform or finance a clean-up off the NPL. Since 1980, 42 Sites have been deleted from the NPL. 76 Sites have construction needed or ongoing (12% of the national total). Of the 123 construction completes, 94 Sites have post construction activity underway (e.g., long-term groundwater treatment).

Corrective Actions: FY 2003 -- 576 Active Corrective Action Facilities (a subset of the subject to Corrective Action List of 887 facilities) in Region 4. National Corrective Action Facilities is 3822 (Region 4 workload is 15.1% of total workload). Region 4 has the second largest workload in the agency.

Implementation of Regional Reuse Plans: Strengthening EPA's workforce to make reuse an integral part of the job, as an objective, is of concern to the Region because resources needed to implement these plans (due in June, 2003) is still unclear. Reuse Plan Guidance indicates that the Plan will represent commitment by EPA managers and staff to make land revitalization a part of the way the Agency conducts and oversees cleanups of waste sites, including state/tribal pilot studies, outreach meetings with regulated community, and information collection and database development.

Children's Health Support: Region 4 Initiative (Pediatric Environmental Health Speciality Unit (PEHSU) through Emory University in collaboration with ATSDR -- Need additional resources as more sites with Children's Health issues are identified .25 EPA FTE and contract support).

Primary Measures of Progress: Follows national targets with regional differences/additions shown in the matrix below.*

***See Goal 5 for RCRA enforcement measures and targets.**

site assessments conducted

final-assessment decisions (including 100% RCRA baseline facilities) -- Regional Commitment below

sites where unacceptable human exposure has been controlled above health-based levels for current land and/or groundwater use conditions -- see Region 4 RCRA and Superfund Commitments below (National: 95% of RCRA Base Line Facilities)

sites where migration of groundwater has been controlled through engineered remedies or natural processes (National: 80% RCRA Base Line Facilities) -- see RCRA and Superfund

final remedies selected (National: 30% of RCRA baseline facilities and 1,223 Superfund sites nationally as of 2002--Regional commitment below

Superfund Construction Completions (4 in FY 2004 for R4)

RCRA cleanups/constructions complete (National: 20% baseline facilities) -- see Regional Commitment below

LUST cleanups completed (including reducing backlog) -- see Regional Commitment below.

Regional/National Strategic Targets	Tools and Contacts	Outcomes/Outputs/Time Frames
<p>3.2.2 By 2008, control the risks to human health and the environment at contaminated properties or sites through cleanup, stabilization, or other action, and make land available for reuse.</p> <p>1) RCRA 2) CERCLA 3) LUST 4) Federal Facilities (next page)</p>	<p>EPA and Partners will select final remedies for Superfund Sites (NPL and SAS) designed to clean up contamination to risk levels protective of human health and the environment and appropriate for reasonably anticipated future land use</p> <p>EPA and partners will ensure that construction of remedies, designed to clean up contamination to risk levels that are appropriate for the next reasonably anticipated land use, is complete at RCRA facilities, Superfund Sites, and Superfund Alternative Sites (SAS) and conduct non-time critical removals</p> <p>Control human exposures from site contamination and control migration of contaminated groundwater at RCRA baseline facilities and at Superfund sites</p> <p>Ensure proper Operations and Maintenance (O&M) of remedies, conduct 5-year reviews, implement and monitor Land-Use Controls (LUCs)</p> <p>Ensure fair treatment and meaningful involvement of people of all races, cultures, and incomes in regional decision-making processes (for all program activities)</p> <p>Develop partnerships with universities, colleges, and other institutions to develop staff understanding of insurance, real estate, and remediation strategies, and conduct mentoring programs and rotational assignments to develop capacity.</p> <p><u>LUST:</u> Manage LUST cooperative agreements. Technical assistance to states, regulated community and program stakeholders. Oversee state programs. Oversee corrective actions on Indian lands. Perform federal lead investigations/enforcement to cleanup LUSTs on Indian lands</p>	<p>Final CERCLIS sites assessed NPL final remedies selected RCRA final remedies selected 25% of Base Line</p> <p>4 Superfund NPL/ SAS Site construction completions # non-time critical removals # acres available for re-use RCRA cleanups -- 15% of Base Line</p> <p>80% & 60% of RCRA Base Line 1 Site each for Superfund</p> <p>5-year reviews conducted LUC implementation plans approved Sites/properties/acres addressed via state/tribal response programs</p> <p># Community Involvement opportunities provided</p> <p># staff trained # staff in mentoring program # rotational assignments</p> <p>Complete 3,325 UST cleanups (est.)</p>

Regional/National Strategic Targets	Tools and Contacts	Outcomes/Outputs/Time Frames
<p>3.2.2 Continued</p> <p>4) Federal Facilities</p>	<p>A. Remedial Activities: EPA and Partners will select final remedies for DOE and DOD NPL, BRAC, and RCRA sites to cleanup contamination to protective levels</p> <p>B. Removal Actions: EPA and Partners will conduct non-time and time-critical removals at DOD and DOE NPL and BRAC facilities and interim actions at RCRA facilities.</p> <p>C. Operations and Maintenance (O&M) of remedies: conduct 5-year reviews, implement and monitor Land-Use Controls (LUCs) at BRAC, DOD and DOE NPL and RCRA facilities.</p> <p>D. NPL Site Deletion: EPA will delete or partially delete facilities so as to enhance reuse opportunities at DOD BRAC sites.</p> <p>E. Formerly Used Defense Sites:</p> <ol style="list-style-type: none"> 1. Perform site assessments leading to final assessment decisions (no further actions or ID of appropriate cleanup 2. Establish inventory of formerly-used defense sites 3. Use Geographic/Media-Specific data to identify potential threats <p>F. Property Transfer: EPA will oversee DOD BRAC and DOE ETTP property transfer for reuse.</p>	<p># Records of Decision</p> <p># Statement of Bases</p> <p># Cleanups</p> <p># Time critical removals</p> <p># Non-time critical removals</p> <p># Interim Actions</p> <p># O&M activities</p> <p># 5-year Reviews</p> <p># LUCs at federal facilities</p> <p># LUC approved implemen. plans</p> <p># sites deleted</p> <p># acres available for reuse</p> <p># sites assessed</p> <p># final decisions</p> <p># findings of suitability to transfer (FOST), early transfer (FOSET), or lease (FOSL) completed</p>

Sub-objective 2.3: Maximize Potentially Responsible Party Participation at Superfund Sites.

Regional Conditions: Resources: approx. 60 FTE (use relative %) for Enforcement activities

Regional Approach: Conduct PRP searches, negotiate, and reach settlement at Superfund (NPL and SAS) sites that have non-federal, viable, liable parties, issue/ensure compliance w/UAOs, administer PRP oversight reform; use comfort letters, windfall lien settlements or PPAs where appropriate.

Primary Measures of Progress: Follows national targets with regional additions shown in the matrix below.

settlements or enforcement actions taken before the start of remedial actions (90% of sites with viable PRPs)

Address all Statute of Limitations cases for Superfund sites with unaddressed total past costs equal to or greater than \$200 K

Regional/National Strategic Targets	Tools and Contacts	Outcomes/Outputs/Time Frames
<p>3.2.3 Through 2008, conserve Superfund trust fund resources by ensuring that potentially responsible parties conduct or pay for Superfund cleanups whenever possible.</p>	<p>Regional approach follows national approach and uses tools available in statute and regulations.</p> <p>EPA will address Statute of Limitations (SOL) cases for Superfund Sites with unaddressed past costs equal or greater than \$200,000</p>	<p># PRP Search Starts # PRP starts and completions % PRP-lead activities & \$ Value # PRP oversight reform letters % Sites with PRP actions # Comfort Letters issued # Settlements with future costs # PPAs or Windfall Lien settlements # <i>De minimis</i> or Cash out Settlements # Orphan Share Compensations # Compliance/Enforcement Actions or Value of Value</p>

Objective 3: Enhance Science and Research. Through 2008, provide and apply sound science for protecting and restoring land by conducting leading-edge research and developing a better understanding and characterization of environmental outcomes under Goal 3.

Regional Conditions: Resources: Participation on Regional Science Council .1 FTE

Region 4 Waste Management Division Research and Science Needs for Goal 3	
<p>Region 4's Annual research needs for support of land preservation and remediation to improve the science provides the basis for the Region's decisions.</p>	<ol style="list-style-type: none"> 1. Develop toxicity indices for ecological receptors which can be used to more effectively characterize risk factors and develop ecological risk assessments in support of Superfund Site Studies and Records of Decision. 2. Assess bio-availability of lead, mercury, arsenic, and other contaminants where uptake of these contaminants by lower organisms in the food chain can seriously impact the biodiversity in proximity to waste sites. 3. Develop criteria for natural attenuation and methods to assess and document natural attenuation processes. 4. Develop methods to determine sample, and model groundwater/surface water interactions, including releases to streams, saltwater intrusion, tidal influences, etc. 5. Develop innovative treatment technologies for common contaminants (NAPLs, chlorinated solvents, chlorinated pesticides, dioxin, wood treating wastes, metals, etc.). 6. In support of the Region's solid waste program, recommendations on research in replacement of CCA lumber, removal of vinyl from drywall (very big in SE), removal of lead-based paint from recovered lumber and C&D landfill impacts (which don't have liners). Region strongly feels more research and technical assistance needed for C & D recycling and disposal issues. C&D and Industrial D not reflected in GPRA accounting, and the opportunity to support State needs in this area is unrecognized.

SSub-objective 3.1: Provide Science to Preserve and Remediate Land.

Regional Conditions: Region 4 is involved in the specific research projects described below.

Regional Approach: All efforts are coordinated with the Office of Research and Development with input to the Multi-Year Plans for research.

Primary Measures of Progress: Region 4 Measures of Outputs and Outcomes are shown in the chart below.

Regional/National Strategic Targets	Tools, Contacts & Resources	Outcomes/Outputs
<p>3.3.1 Through 2008, provide sound science and constantly integrate smarter technical solutions and protection strategies that enhance our ability to preserve land quality and remediate contaminated land for beneficial reuse.</p>	<p>RARE Project: Evaluation of Methods for Removing Heavy Metals, Arsenic, and Ferrous Iron Acidity from Groundwater, Soils, and Sediment at the Columbia Nitrogen Superfund Site (Section 2) to achieve accurate evaluation on effectiveness of groundwater cleanup methods for specific contaminants</p> <p>Investigate probabilistic sampling and modeling at Federal facility sites to refine contaminant definition. Prove viability of emerging technologies with reduced cost or accelerated clean up time frame</p> <p>Accurate evaluation of effects on human health and the environment. Document methods, models, assessments, and risk management options</p>	<p>Accurate evaluation</p> <p># of pilot studies conducted</p> <p>Refined contaminant definition. (Measure: # sites using probabilistic methods) - Multi-year project?</p> <p># of net meetings</p>

Sub-objective 3.2: Conduct Research to Support Land Activities.

Regional Conditions: Region 4 is involved in the specific research projects described below.

Regional Approach: All efforts are coordinated with the Office of Research and Development with input to the Multi-Year Plans for research.

Primary Measures of Progress: Region 4 Measures of Outputs and Outcomes are shown in the chart below.

Regional/National Strategic Targets	Tools, Contacts & Resources	Outcomes/Outputs
<p>3.3.2. Through 2008, conduct sound, leading-edge scientific research to provide a foundation for preserving land quality and remediating contaminated land.</p>	<p>More efficient work processes (Internet meetings, electronic document review)</p> <p>Support pilot studies of promising technologies at Federal facility sites. Prove viability of emerging technologies with reduced cost or accelerated clean up time frame (#of pilot studies conducted)</p> <p>Barriers to reuse and redevelopment of contaminated land (Grant with NALGEP to conduct workshops and research barriers)</p>	<p># electronic meetings/reviews</p> <p># acres review # acres protected # acres reused</p> <p>Barriers and ways to overcome identified.</p>

Goal 4: Healthy Communities and Ecosystems

Objective 4.1: Chemical, Organism, and Pesticide Risks. Prevent and reduce pesticide, chemical, and genetically engineered biological organism risks to humans, communities, and ecosystems.

Overview:

The Southeast (Region 4) ranks among the highest regions in the country for risks to communities posed by chemicals and pesticides. For example, Region 4 has one of the highest number of older housing units in low-income areas, which are the primary risk factors for lead poisoning in children. In addition, Region 4 is one of the top regions for disposal of polychlorinated biphenyls (PCB's) with a sizeable inventory of PCB registered facilities. Region 4 is home to the largest number of ports of any region (50 ports), posing significant potential risks with respect to the importing of chemicals into the country subject to EPA's core-Toxic Substance Control Act (TSCA) regulations. Finally, the rate of non-compliance with EPA's asbestos regulations in Region 4 school districts approaches 75 percent, suggesting a high potential for children's exposure to asbestos hazards in schools in the region.

Region 4 also has: the highest number of farms; the highest amount of farm income for crops, livestock and agricultural products; the second highest purchases in total dollar value of agricultural chemicals; the fifth most land in farms; 20 percent (2,300) of pesticide producing establishments; approximately 90 million pesticide pounds (mostly active ingredients to produce end use pesticides) documented through Region 4 ports of entry; conducted approximately 1,600 marketplace inspections per year; funded last year \$550,000 in grants & contracts related to reducing pesticide risk; funded \$4.8 million per year in state cooperative agreements; approximately 100 federal enforcement actions/year; approximately 3000 state enforcement actions/year; approximately 17,000 inspections conducted per year; long growing season areas; strong termite pressure; 303d list concerns for pesticides in surface waters; some major aquatic life concerns with pesticide impact in urban streams, especially two streams in north Atlanta; high frequencies of detections of herbicides in the Upper Floridan aquifer; many streams with organochlorine concerns in bed sediment and fish tissue.

Region 4's Pesticides and Toxic Substances Branch (PTSB) will utilize programs, tools, approaches, resources and partnerships to prevent and reduce human and ecological risks from exposure to pesticides, toxic chemicals, and plant incorporated pesticides (PIPs). The regulatory programs managed by PTSB staff include: oversight of the production, distribution, and use of pesticides; PCBs; other toxic chemicals; and the maintenance in place, removal and disposal of lead-based paint and asbestos that were historically used in various buildings (including homes built before 1978) and structures. Priorities of the PTSB are increasing use of available data to target compliance inspections, outreach efforts, integrated pest management as well as promoting voluntary self-audits of regulated facilities and entities.

The PTSB will also continue to manage various voluntary programs that promote the reduction of risk. For example, using grant funds we will target projects which promote the use of reduced risk pesticides, the use of Integrated Pest Management (IPM) techniques in a wide array of locales, community awareness and education projects through our children's environmental health protection program, as well as, taking steps to address environmental justice concerns through education and outreach.

Sub-objective 4.1.1: Reduce Exposure to Toxic Pesticides. Through 2008, protect human health, communities, and ecosystems from pesticide use by reducing exposure to the pesticides posing the greatest risk.

Regional Condition/Approach:

The Pesticides Program will support a wide range of activities that will assist the Agency in meeting the national pesticide program goals and objectives, and that address regional specific high priority issues. Specifically, we are strategically focusing our resources and those of the state lead agencies on: promoting pesticide awareness and worker safety through implementation of the Worker Protection Standard; implementing state certification and training programs that promote safe and effective use of agricultural and structural pesticides; preventing pesticide misuse and ensuring that canceled pesticides are no longer distributed or used by the public; inspector training; and, preventing illegal pesticide imports. Many of these goals will be achieved through enhanced partnerships with the pesticide regulatory and user communities.

The success of our Regional pesticide programs are dependent on cooperative and productive relationships with our partners in state lead agencies, tribes, universities and Cooperative Extension. Region 4 will work with these partners to target activities within the various states such as School IPM and pesticide waste and container disposal which reflect both National and Regional goals and objectives. Targeted goals and objectives will be incorporated into cooperative agreements and grants that are evaluated and adjusted on a continuous basis to ensure that we effectively use our limited resources.

The Region will conduct Strategic Agricultural Initiative outreach activities through State on-site visits, the Pesticide homepage, and Alphabet Soup. The Region will target one new locale or crop each year for risk reduction outreach activities. This outreach will be in addition to the distribution and continued administration of approximately \$400,000 in grant funds targeted at reducing the use of high risk pesticides in minor crops and foods consumed heavily by infants and children.

Primary Measures of Progress:

- Number of misbranded and/or unregistered pesticide products removed from distribution and/or brought into compliance.
- Number of Endangered Species Pesticide Incidents.
- Number of animal deaths resulting from pesticide misuse.
- Number of Students in Schools Using IPM based on 2003 baseline.
- Number of reported farm worker exposures to pesticides.
- Number of state C & T programs evaluated with Federal partners.
- Pounds of released pesticides reported in the TRI.
- Pounds of illegal pesticides prevented from import entry.
- Number of contacts from outreach activities.

Regional/National Strategic Targets	Tools, Contacts & Resources	Outcomes/Outputs/Time Frames
Through 2008, support the systematic review of pesticides in the marketplace to ensure that they meet the most current safety standards: re-registration (100% by 2008), tolerance reassessment (100% by 2006) and registration review.	Review pesticide re-registration eligibility decisions (REDS & IREDS) as appropriate. Random Marketplace Inspections to protect consumer safety; inspectors in each state will conduct Marketplace inspections related to misbranded and/or unregistered pesticides. Resources will be shifting over time to more targeted, higher violation rate marketplace inspections. Contacts: Registration: Lora Lee Schroeder (404) 562-9015; State inspections: Andrew Wilson (404) 562-9000	-Review REDS & IREDS of interest to Region 4 -Conduct 1,600 Marketplace inspections (primarily state conducted) for misbranded and unregistered pesticides in 2003. This number will probably decrease per year over the five year period as efforts to target inspections in higher human and environmental health (worker protection and predator control) areas increase. - Remove from distribution and/or bring into compliance at the federal level 50 misbranded and/or unregistered pesticide products per year.
Each year through 2008, protect endangered and threatened species by ensuring that none of the 15 species on the EPA/Fish and Wildlife Service/U.S. Department of Agriculture (USDA) priority list of threatened or endangered species will be jeopardized by exposure to pesticides.	Request states send endangered species related cases to EPA for review and possible involvement/enforcement with US Fish & Wildlife. Provide endangered species basic inspector training. Contacts: Endangered Species Mark Bean (404) 562-9010; Training Andrew Wilson (404) 562-9000	- Review approximately 5 significant endangered species related pesticide cases (based on submission) during the five year period. - Conduct an endangered species session during the inspector training program in 2006.
By 2008, support the reduction by 30 percent from 1995 levels the number of incidents involving mortalities to terrestrial and aquatic wildlife caused by pesticides.	Inspections and enforcement actions. Cooperative agency work. Grant funding. Contacts: State Inspections Andrew Wilson (404) 562-9000; Federal Inspections Mark Bloeth (404) 562-9013; Stewardship Lora Lee Schroeder (404) 562-9015	- Participate as needed in state and federal inspections and enforcement actions related to mortalities related to pesticides. - Provide expert pesticide assistance to US Fish & Wildlife and state wildlife officials. - Provide funding for at least one EPA Pesticide Stewardship Committee grant for this effort.

Regional/National Strategic Targets	Tools, Contacts & Resources	Outcomes/Outputs/Time Frames
<p>Through 2008, expand modeling capacity for including pesticide exposure data for tribal populations in risk assessment and risk management decision making by developing 10 biogeographical modules and factoring unique tribal pesticide exposure scenarios into all appropriate pesticide reviews. Base line: pilot of 2 modules in FY 2003; total number of modules to be determined, 16-18 current estimate.). R4 support via grant funding to provide tribal data for this effort.</p>	<p>Grant funding. Contacts: Pesticide Tribal Chris Plymale (404) 562-9004; PESP & Urban Initiative grants Troy Pierce (404) 562-9016</p>	<ul style="list-style-type: none"> - During the five year period provide at least one Pesticide Environmental Stewardship Program - During the five year period provide at least one Urban Initiative grant related to this effort.
<p>Through 2008, increase each year the number of schools in Region 4 using integrated pest management.</p>	<p>Grants, contracts and outreach. Contact: Troy Pierce (404) 562-9016</p>	<ul style="list-style-type: none"> - Number of schools by state each year using IPM
<p>By 2006, reduce re-registration decision time (issuance of Re-registration Eligibility Decision) by 10% from the initiation of public participation to the signed Re-registration eligibility Decision from the FY 2002 baseline. (R4 will support this effort by providing timely comments)</p>	<p>Review and comment on REDS and IREDS submitted by EPA HQ. Contacts: Lora Lee Schroeder (404) 562-9015; Troy Pierce (404) 562-9016</p>	<ul style="list-style-type: none"> - Comments will be provided to EPA HQ on new pesticides of interest to Region 4 over the three year period as needed.
<p>By 2008, occurrence of residues of carcinogenic and cholinesterase inhibiting neurotoxic pesticides on foods eaten by children will have decreased by 30 percent from their average 1994 to 1996 levels. R4 support via meeting and workgroup participation.</p>	<p>National/Regional meetings. Contact: Lora Lee Schroeder (404) 562-9015</p>	<ul style="list-style-type: none"> - Participate in 3 national/regional planning efforts per year with the goal of transitioning to pest management strategies that meet this target.
<p>Through 2008, increase the prevention of entry into US commerce of illegally imported pesticides.</p>	<p>Review pesticide Notices of Arrival (NOAs) Inspect pesticide imports at ports of entry Develop enforcement cases for illegal entry of these pesticides. Recent pesticide MOU with US Customs. Conduct inspections of importers and manufacturers to ensure compliance with TSCA Contacts: Veme George (404) 562-8988; Mark Bloeth (404) 562-9013</p>	<ul style="list-style-type: none"> - Review approximately 2,200 pesticide NOAs each year for release, denial or inspection. Develop approximately 4 pesticide import enforcement cases each year. - Conduct 2 federal pesticide import inspections each year. Conduct 5 state pesticide import inspections during the five year period. - Number of inspections/year - Reduced entry of chemicals into US that pose unreasonable risk to human health or the environment.
<p>Through 2008, increase protection of farm workers from pesticide exposure and conduct an evaluation of the certification and training program.</p>	<p>Worker Protection inspections and training. C&T cooperative evaluation process with the Cooperative Extension Service. Contact: Worker Safety Andrew Wilson (404) 562-9000</p>	<ul style="list-style-type: none"> - Conduct at least 900 Worker Protection inspections per year during the five year period. - Conduct 5 training courses over five years related to Worker Protection. - By 2006, Implement with the Cooperative Extension Service a method of evaluation of the eight state C&T programs. Effort is funded by an EPA HQ OPEI Program Evaluation Award.

Regional/National Strategic Targets	Tools, Contacts & Resources	Outcomes/Outputs/Time Frames
By 2008, Decrease releases of pesticides on the Toxic Release Inventory list of toxic chemicals by 10% from 2003 levels.	Review TRI annual Reports; Conduct TRI Data Quality Inspections, Conduct Outreach through speeches, mailings, and CAMEO; Encourage Pollution Prevention.	- TRI annual Reports and number of Data Quality Inspections will increase; The transfer and release of Toxic compounds will decrease; Toxic chemicals used in manufacturing will decrease.

Sub-objective 4.1.2 License Pesticides Meeting Safety Standards. Through 2008, protect human health, communities, and ecosystems from pests and disease by ensuring the availability of pesticides, including public health pesticides and antimicrobial products, that meet the latest safety standards.

Regional Condition/Approach:

The Pesticides Program will continue to focus on the proper use of agricultural pesticides as a priority. We will use a variety of opportunities such as participation on the USDA Southern Sustainable Agriculture Work Group and the Southern Region IPM Center to build on existing relationships and identify areas for future focus. Through facilitation of the Region 4 Pesticide Environmental Stewardship Committee and Urban Initiative grants, the illegal use of agricultural pesticides for control of animal predators and household pests will be addressed.

Primary Measures of Progress:

- Increase in number of agricultural Acres Treated with Reduced Risk Pesticides.
- Number of State on-site visits.

Regional/National Strategic Targets	Tools, Contacts & Resources	Outcomes/Outputs/Time Frames
By 2008, reduce registration decision times by 10 % for conventional new active ingredients and 5% for reduced risk new active ingredients (including biopesticides) from the FY 2002 baseline through R4 providing timely comments.	Review and comment on draft registration decisions submitted by EPA HQ. Contacts: Lora Lee Schroeder (404) 562-9015 and Troy Pierce (404) 562-9016	- Comments will be provided to EPA HQ on new pesticides of interest to Region 4 over the five year period as needed.
Through 2008, ensure new pesticide registration actions (including new active ingredients, new uses) meet new health standards and are environmentally safe. R4 will support this effort by providing timely comments.	Review and comment on new actions submitted by EPA HQ. Contacts: Lora Lee Schroeder (404) 562-9015 Troy Pierce (404) 562-9016	- Comments will be provided to EPA HQ on new pesticides of interest to Region 4 over the five year period as needed.
Each year through 2008, maintain timeliness of section 18 emergency exemption decisions (2002 baseline), R4 support via review and enforcement of terms..	Project Officers informed of dates of submission of final reports and special conditions of approval. Contact: Lora Lee Schroeder (404) 562-9015	- Ensure states enforce terms and conditions of approval via state reports. Review and comment as needed in state end of year reports.
By 2008, at least 11 percent of acre treatments will use applications of reduced-risk pesticides. (National Baseline: 3.6 percent in 1998; R4 will support this effort by providing grants to promote these uses).	Grant funding Contact: Lora Lee Schroeder (404) 562-9015	- Will fund at least 2 Strategic Agricultural Initiative grants/year that address this issue.

Sub-objective 4.1.3: Reduce Chemical and Biological Risks. Through 2008, prevent and reduce chemical and biological organism risks to humans, communities, and ecosystems.

Regional Condition/Approach:

Region 4's approach for preventing and reducing risks from exposure to lead, PCBs, asbestos, and other chemicals focuses on enforcement, compliance assistance, and outreach. Children's exposure to lead would be minimized through targeting inspections in high-risk areas for lead poisoning (older, low-income rental properties) based on Geographic Information Systems (GIS) data and recommendations from state health and environmental offices. The region will also continue compliance assistance efforts in the lead program to evaluate the effectiveness of our compliance assistance efforts to date. In addition, the region will develop an outreach strategy to communicate lead hazards to high risk populations in key cities throughout Region 4. Region 4 has invested in the core-TSCA program, specifically in its importer initiative to promote compliance by importers of chemicals. The PCB program is focusing on the oversight of self-implemented PCB clean-ups, the safe maintenance of transformers in use, and the reduction in use of transformers through supplemental environmental projects (SEPs). The asbestos program will undertake an assessment of enforcement and compliance within the region over the next year to help formulate a strategy for better addressing asbestos risks.

Primary Measures of Progress:

- Increase in the number of regulated entities taking actions to comply with TSCA regulations.
- Percent of compliance with the Real Estate Notification and Disclosure Rule.
- Number of certification and training programs for lead-based paint professionals.
- Numbers of individuals, firms, or training providers certified or accredited by EPA, states, and tribes for lead-based paint activities.
- Number of approvals of PCB storage, disposal, and cleanup activities.

Regional/National Strategic Targets	Tools, Contacts & Resources	Outcomes/Outputs/Time Frames
Through 2008, reduce relative risks to human health from exposure to chemicals, through promoting the requirements of EPA's Pre-Manufacture Notice review program and the requirements of the TSCA Inventory.	Conduct inspections of importers and manufacturers to ensure compliance with TSCA. Contact: Verne George 404-562-8988.	<ul style="list-style-type: none"> - Number of inspections per year. - Reduced entry of chemicals into US that pose unreasonable risk to human health or the environment.
Through 2008, reduce the number of childhood lead poisoning cases in the southeast to approximately 30,000, from approximately 80,000 cases in 1999/2000.	<p>Conduct Real Estate Notification and Disclosure Rule inspections and inspections of abatement sites for proper work practice standards. Conduct training and certification program in EPA-run states, and continue cooperative assistance agreements with states and tribes to conduct training and certification programs in authorized states and tribes. Contacts: Liz Wilde 404-562-8528; Keith Bates 404-562-8992.</p> <p>Continue cooperative agreements/interagency agreements with cooperative extension agents in the southeast, to conduct compliance assistance activities regarding the Real Estate Notification Rule, the Pre-Renovation Rule requirements, and the certification program requirements. Contact: Wayne Garfinkel, 404-562-8982.</p>	<ul style="list-style-type: none"> - Number of inspections per year; compliance rates calculated from inspections. - Educating renters and home-buyers about the hazards of lead-paint; increasing knowledge of presence of lead-based paint; ensuring proper work practices when removing lead-paint; reducing childhood lead poisoning. - Number of people contacted per year with compliance assistance information. - Educating renters and home-buyers about the hazards of lead-paint and proper work practices to use when removing lead-paint; reducing childhood lead poisoning.

Regional/National Strategic Targets	Tools, Contacts & Resources	Outcomes/Outputs/Time Frames
Through 2006, continue efforts to support the tribal set-aside grant program for implementation of blood level screening and lead awareness activities in Indian Country.	Continue and encourage cooperative assistance agreements and oversight with tribes to conduct blood lead screening and lead awareness activities. Contact: Pat Livingston 404-562-9171.	<ul style="list-style-type: none"> - Number of children screened for blood lead levels. - Number of children and adults reached through outreach events. - Knowledge of blood-lead levels; increased awareness of lead poisoning; reducing childhood lead poisoning.
Through 2008, encourage the safe disposal of large capacitors and transformers containing PCBs, contributing to the HQ's goal of reducing 2000 national inventories of PCB large capacitors by 11% and PCB transformers by 4%.	Conduct inspections of commercial storage and disposal facilities and companies with PCB-containing equipment, verifying timely destruction of PCB capacitors and transformers. Ensuring storage and disposal facilities are properly permitted and in compliance with permits. Overseeing self-implemented clean-ups of PCB's. Contacts: Raj Aya, 404-562-8993; Craig Brown 404-562-8990.	<ul style="list-style-type: none"> - Number of inspections per year, compliance rates calculated from inspections. - Number of existing transformers. - Number of properly permitted disposal and storage facilities. - Number of completed self-implemented clean-ups of PCBs.
Through 2008, reduce relative risks to human health from exposure to asbestos, through promoting compliance with the requirements of EPA's Asbestos in Schools Regulations mandated by TSCA.	Conduct inspections of schools to ensure compliance with the Asbestos in Schools requirements mandated by TSCA, and where warranted, conduct limited asbestos dust sampling to address exposure concerns. Provide compliance assistance to schools on ongoing basis. Continue cooperative assistance agreements with states to conduct Asbestos in Schools compliance inspections in five of the eight Region 4 states. Contact: John Hund, 404-562-8978.	<ul style="list-style-type: none"> - Number of inspections per year; compliance rates calculated from inspections. - Number of people contacted per year with compliance assistance information. - Number of incidents responded to involving potential exposure to asbestos dust. - Outcome: educating school officials about asbestos requirements to minimize potential for humans to be exposed to friable asbestos.

Sub-objective 4.1.4: Reduce Risks at Facilities. Through 2008, protect human health, communities, and ecosystems from chemical risks and releases through facility risk reduction efforts and building community infrastructures.

Regional Condition/Approach:

Work across strategic goals to ensure a coordinated approach to protecting the health of population centers across the region from the potential risk of facility hazardous chemical releases.

Primary Measures of Progress:

- Percent of RMProgram facilities inspected that have implemented necessary process hazard analysis related risk reduction measures.
- Percent of TRI facilities in compliance with Community Right to Know Act requirements for timely reporting.

Regional/National Strategic Targets	Tools, Contacts & Resources	Outcomes/Outputs/Time Frames
By 2008, 30% of those facilities with hazardous chemicals, including Risk Management Plan (RMP) facilities, will have reduced their risk of having a major	Conduct Risk Management Program (RMProgram) on-site inspections and audits; Provide oversight of delegated state and local RMPrograms; Initiate	- Percent of RMProgram facilities inspected/audited per year that have implemented all necessary process hazard analysis related risk reduction measures (i.e., percent of

Regional/National Strategic Targets	Tools, Contacts & Resources	Outcomes/Outputs/Time Frames
chemical accident.	RMProgram enforcement actions as needed.	facilities that are compliant with RMProgram prevention program requirements).
By 2008, 100% of those facilities with TRI chemicals will comply with the requirements of the Community Right to Know Act through timely reporting.	Review TRI annual Reports; Conduct TRI Data Quality Inspections, Conduct Outreach through speeches, mailings, and CAMEO; Encourage Pollution Prevention.	- TRI annual Reports and number of Data Quality Inspections will increase. - The transfer and release of Toxic compounds will decrease. - Toxic chemicals used in manufacturing will decrease.
By 2008, 50% of local communities or Local Emergency Planning Committees (LEPC) will have incorporated facility risk information into their emergency preparedness and community right-to-know programs.	Interact with LEPCs, Emergency Management Agencies and Fire Departments to ensure that RMP facilities have coordinated their Risk Management Plan (RMPlan) information.	- Percent of RMProgram facilities inspected and/or /audited per year that have coordinated their RMPPlans information with the responsible LEPC, Emergency Management Agency or Fire Department.

Objective 4.2: Communities. Sustain, clean up, and restore communities and the ecological systems that support them.

Overview:

Region 4 experienced an unprecedented rate of population growth between 1990 and 2000 and continues to grow at a rapid pace. Between 1990 and 2000, the Region grew by 8.6 million people. Such growth has led to increased development throughout all 8 States with a significant portion occurring along the coasts and the outer boundaries of existing cities and communities. Many of these communities are now experiencing both environmental and public health problems they are ill equipped to handle.

Sub-objective 4.2.1: Sustain Community Health. By 2008, at least 8 communities, working with EPA, Region 4 through meaningful public involvement, will adopt and begin implementing comprehensive, integrated planning and environmental management processes in the Southeast to sustain local ecosystem function and pursue ecologically compatible development.

Regional Condition/Approach:

The Region’s strategy takes a different approach to address sustaining community health. Due to extremely limited resources and funding, the Region’s Smart Growth and Sustainable Development programs are unable to work directly with communities to the level needed to effectively meet the objective. The Region is however working with and through media-specific programs, States, partner Agencies, and other stakeholders to reach local communities. We are also looking for and encouraging the development of tools and resources to support projects and communities already working to integrate planning and environmental management processes to pursue ecologically compatible development, sustain local ecosystem function, and support more livable communities. The majority of this work focuses on areas of the Region experiencing significant growth and associated environmental impacts. Specific projects currently going on in the Region include: Charlotte Sustainable Environment for Quality of Life (SEQL) in North Carolina, the Natural Resources Initiative in NE Mississippi; the Neuhoff Redevelopment Project in Nashville, Tennessee; and the North Carolina Million Acre Initiative in NC.

Primary Measures of Progress:

- Number of communities that implement comprehensive, integrated planning and environmental management processes.

Regional/National Strategic Targets	Tools, Contacts & Resources	Outcomes/Outputs/Time Frames
Through 2008, help EPA programs, States, partner	Strengthen the Region’s ability to assist communities	- Develop training modules specific to each program’s

Regional/National Strategic Targets	Tools, Contacts & Resources	Outcomes/Outputs/Time Frames
<p>Agencies, local communities and other stakeholders, address environmental issues and problems resulting from the Region's unprecedented growth and look for innovative ways to help communities balance their economic, environmental and social needs.</p>	<p>through technical staff training and support.</p> <p>Integrate Smart Growth (SG) and Sustainable Development (SD) principles into Programmatic work (i.e. Brownfields; NEPA; Clean Water Act; Clean Air Act; Pollution Prevention; Energy; Innovations).</p> <p>Support multi-media, placed-based projects that include SD / SG issues.</p> <p>Partner with the Center's for Disease Control and EPA's ORD to explore research opportunities to study the impacts of land use on human health (children's obesity rates, asthma in children and the elderly). Partner with and support Federal Agencies and States through training and technical expertise.</p> <p>Promote the use of the Environmental Finance Centers to assist communities (University of North Carolina and University of Louisville).</p> <p>Work with Headquarters Programs and support National efforts on SD / SG.</p>	<p>needs.</p> <ul style="list-style-type: none"> - Conduct training with at least two programs each year. - Work with programs on cross-media projects and serve on Regional teams involving SD / SG issues, such as the Polluted Runoff Team, P2 Team, Brownfields Team, Sustainable Development Team and the Land Use Revitalization Team. - Review programmatic grants, as necessary, to encourage the inclusion of SD / SG principles and reduce possible adverse impacts to communities. - Participate in project meetings. - Look for opportunities to enhance cross-media coordination within the Region and between Agencies. - Provide tools and resources to support project goals and visions. - Participate in meetings with ORD's Regional Coordination Teams and CDC. - Work closely with the Lead Region representative for ORD. - Meet with Federal partner agencies, states and local communities to discuss needs and opportunities for partnering. - Develop a mechanism for distributing information to stakeholders. - Support Partnership efforts on-going in the Region (i.e. Southeast Natural Resource Leaders Group.) - Manage both Cooperative Agreements. - Oversee the development of EFC products and distribute as necessary. - Hold annual informational meetings with Regional management and staff. - Work with project teams. - Review draft materials, grant proposals, etc., and provide Regional input. - Distribute information/products to stakeholders. - Attend meetings or participate in conference calls, as necessary. - Smart Growth Index - 2nd Round of pilots through

Regional/National Strategic Targets	Tools, Contacts & Resources	Outcomes/Outputs/Time Frames
	Promote the development and use of tools to help communities.	2004. - Smart Growth Network. - Support work on Brownfields / Smart Growth Grants. - Participate in the development and use of tools (e.g. Southeastern Ecological Framework; the GeoBook; the Smart Growth Index; ReVA). - Distribute information to stakeholders. - Participate in training, meetings, etc. - Work with local communities to identify resource need. - Periodically up-date database of SD / SG tools and resources and distribute to stakeholders.

Sub-objective 4.2.2: Restore Community Health. By 2008, increase by 50 percent the number of communities, working with EPA through meaningful public involvement, that have addressed disproportionate environmental impacts and risks through comprehensive, integrated planning and environmental management. (2002 baseline)

Regional Condition/Approach:

Information from the National Health Interview Survey indicated that 821,000 children in Region 4 had asthma attacks in the year 2000. This number is higher than any other EPA Region. The percentage of children in Region 4 who had an asthma attack (6.1%) is higher than the national average of 5.5 percent. Many of the high-risk areas for asthma and other environmental hazards faced by children are poor, minority, urban low-income, older housing neighborhoods. Nearly 30% of the communities in Region 4 are potential Environmental Justice (EJ) areas due to the high percentages of low-income and/or minority residents. This information is based on EPA's policy guidance on assessing potential EJ issues through analysis or community input. This percentage is almost twice the national average. The Region is also unique in that the majority of EJ areas are in more rural locations as opposed to urban areas which are more commonly identified using EPA's policy guidance in other Regions.

Region 4's approach will focus on a number of outreach activities that include the following. Continue to work with Cooperative Extension to conduct education and outreach activities to inform the public about environmental health concerns to vulnerable populations (i.e. children & elderly). Develop a southeast asthma coalition to bring together state environmental and health programs to develop and implement an asthma strategy. Encourage strategies to include outreach and education. Work with schools and youth organizations to develop strategies to address childhood environmental hazards. Promoting children's health month. Offering education and consultation to health care professionals with the Pediatric Environmental Health Specialty Units (PEHSUs), and referring the public to the PEHSUs. Support development and implementation of a national strategy on aging issues and the environment. Act as liaison for networking to develop infrastructure to address aging issues, including the development of education and outreach activities. Support the development and implementation of Asthma Action Plans within half of the Region 4 states that incorporate the ECOS/ASTHO recommendations.

In order to protect low-income and minority communities who may suffer from disproportionate and cumulative environmental impacts, Region 4 will also provide consistency and

collaboration in achieving environmental justice for all of its communities, and ensure that environmental justice is integrated into programs, policies, and practices. The Region's Environmental Justice Action Plan established the following goals: 1. Integrate EJ Into Agency Programs, 2. Enhance State Capacity to Address Environmental Justice, 3. Enhance Public Participation and Access to Information, and 4. Identify and Respond Appropriately to EJ Matters.

The Region has established a number of strategies and activities to achieve the goals mentioned above. Additionally, each Division and Office will establish an Action Plan that will identify program specific strategies and activities, as well as performance measures, that will further build upon the strategic targets listed below.

Primary Measures of Progress:

- Number of educators, health care professionals, and general public reached by childhood environmental health education, intervention, and outreach programs.
- Number of infrastructure programs implemented to address childhood environmental health and the aging population.

Regional/National Strategic Targets	Tools, Contacts & Resources	Outcomes/Outputs/Time Frames
Engage and collaborate across divisions.	Rededicate charge of EJ cross divisional team. Pursue team performance challenges to further regional goals. Provide outreach to staff on EJ issues. Raise resource & support issues to management.	<ul style="list-style-type: none"> - All divisions with active representation on team. - Performance challenges completed timely. - Systematic mechanism in place and utilized to communicate with staff.
Provide opportunities to participate in EJ training, particularly train-the-trainer sessions.	Develop an implementation plan for EJ training and invite state EJ coordinators to R4 training. Contact: EJ/CL Staff Office	<ul style="list-style-type: none"> - Conduct EJ training for EPA staff and external stakeholders. - 60% of State EJ Coordinators from R4 participate (1st Qtr '03).
Collaborate with states on development of state EJ programs and/or policies.	Conduct annual EPA/State meeting and regular conference calls. Collaborate with States in their development of a State EJ strategic plans. Contact: EJ/CL Staff Office.	<ul style="list-style-type: none"> - Conduct one meeting per year. - Conduct quarterly conference calls. - Each State EJ program will develop a plan by the end of 2005.
Enhance public participation	Hold public meetings based on Public. Participation Guidance. Ensure public comment periods are communicated to communities potentially impacted. Make EPA documents/reports available to EJ communities. Facilitate technical assistance/outreach opportunities. Contact: EJ/CL Staff Office	<ul style="list-style-type: none"> - No EPA action is conducted in an area without providing appropriate opportunity for community engagement or availability of information.
Educate internal and external stakeholders on EJ.	Conduct EJ Listening Sessions for EJ communities in each state. Participate in and/or conduct workshops, conferences, or community meetings. Contact: EJ/CL Staff Office	<ul style="list-style-type: none"> - Listening sessions completed; action plans established when needed to follow-up on issues raised (FY 03 and 04).

Regional/National Strategic Targets	Tools, Contacts & Resources	Outcomes/Outputs/Time Frames
Manage the EJ Small Grants process.	Provide training for new grantees, conduct site visits and monitor grants. Contact: EJ/CL Staff Office	<ul style="list-style-type: none"> - 90% of new grantees attend training annually. - 75% of grant projects visited annually.
Institute Region-wide complaint tracking process.	Conduct training on inquiry tracking system. Conduct pilot and expand system region-wide. Contact: EJ/CL Staff Office	<ul style="list-style-type: none"> - Complete resolution of 75% of inquiries entered into tracking system (3rd Qtr '03). - Complete pilot by end of 3rd Qtr. and institute region-wide in FY04.
By 2008, reduce the regional asthma attack rate below the current rate of 6.1%.	Facilitate development and implementation of state strategies and capacity to reduce exposures to environmental triggers of childhood asthma. Develop a southeast asthma coalition, holding summit meetings, to bring together state environmental and health programs to develop and implement an asthma strategy to reduce environmental factors that trigger asthma. Encourage strategies to include in large part outreach and education components. Contact: Wayne Garfinkel, 404 -562-8982	<ul style="list-style-type: none"> - Number of state programs adopting state asthma strategies. - Reduce asthma attack rates. - Number of programs within states that address environmental factors which trigger asthma.
By 2008, assess the impact of the health of the aging from the environment, and assess the impact of the aging on the environment.	Act as liaison for networking to develop infrastructure to address aging issues, including the development of education and outreach activities. Contact: Wayne Garfinkel, 404 -562-8982	<ul style="list-style-type: none"> - National strategy on the aging population and the environment. - State infrastructure to address the aging population and the environment.
By 2008, reduce the exposure of children to environmental health hazards.	Develop state capacity to address children's environmental health hazards, to incorporate environmental health outreach, training and educational programs. Work with schools and youth organizations to develop strategies to address environmental hazards. Promoting children's health month. Offering education and consultation to health care professionals with the Pediatric Environmental Health Specialty Units (PEHSUs), and referring the public to the PEHSUs. Contact: Wayne Garfinkel, 404 -562-8982	<ul style="list-style-type: none"> - Communication and partnerships established between state programs to address children's environmental health hazards. - Reducing exposure of children to environmental health hazards. - Number of schools and youth organizations with programs to address children's environmental health hazards. - Number of persons reached by PEHSUs. - Number of persons reached by EPA and Cooperative Extension outreach efforts.

Sub-objective 4.2.3: Assess, Clean Up, and Develop Brownfields. Through 2008, promote the cleanup and reuse of brownfields. Working with state, tribal, and local partners under Sections 104(k)(2) and 104(k)(3), EPA will assess 9,200 properties as well as promote the cleanup and reuse of these brownfields properties, leveraging 33,700 jobs and \$10.2 billion in cleanup/redevelopment funding.

Regional Condition/Approach:

Region 4 has awarded: 57 Brownfields Assessment Demonstration Pilot Grants located in 8 states, two of which are also designated as Showcase Communities; five Brownfields Job Training/Development Grants in three states; and seventeen Brownfields Cleanup Revolving Loan Fund Pilots in 5 states. Region 4 will also facilitate the development and implementation of state strategies and capacity building to reduce exposures to environmental triggers of childhood asthma and to reduce exposures to childhood health risks.

Primary Measures of Progress:

- Number of jobs generated through revitalization.
- Number of dollars leveraged.

Regional/National Strategic Targets	Tools, Contacts & Resources	Outcomes/Outputs/Time Frames
<p>Through 2008, EPA Region 4 will report the number of brownfield properties assessed and cleaned up.</p>	<p>CERCLA Subtitle A Competitive Grants Assessment, Revolving Loan Funds/Cleanup, Cleanup, Job Training.</p> <p>EPA Resources: Grant Project Managers, Community Involvement Specialists and Technical Reviewers. Coordinate with Regional Planning Councils in south Florida to identify local government needs in assessing contaminated properties. Provide technical assistance to local governments applying for national Brownfields grants to assess their contaminated sites. CERCLA Subtitle C State/Tribal Response Program Grants.</p> <p>Resources: Grant Project Manager (Admin & Technical), Program Oversight (SF, UST, PCB, etc), Technical Reviewers, Field Oversight.</p> <p>EPA Direct Activities: Assessment and Cleanup through Contract/IAG Managers, Technical Reviewers, and Field Oversight. Coordinate use of Brownfields TBA funding through FL DEP to assess contaminated sites in S FL where reuse has a high potential. Provide technical support to local governments in designing investigations and reviewing/interpreting results of Brownfields contaminant investigations. Provide technical support to Seminole Indian Tribe as they develop a comprehensive hazardous waste program for the management of leased tribal lands. Partner with Federal Agencies via the Brownfields Federal Action Agenda Partnership. Use of grants and contracts to develop Brownfield Workshops. Brownfield Staff and extramural funds and Research Grant with NALGEP Environmental Finance Centers</p>	<ul style="list-style-type: none"> - Number of Properties Assessed, number of properties cleaned up, and number of properties redeveloped. - Number of Properties for Beneficial Reuse as Greenspace, number of dollars leveraged, number of dollars invested, and number of jobs created. - Number of cleanups under State Voluntary Cleanup Programs and Increase in number of Cleanups per year. - Number of Targeted Assessments/Cleanups. - Number of Agencies assisting Brownfield Pilots Dollars leveraged. - Regional Brownfields Workshop - July 03 State workshops (4).

Regional/National Strategic Targets	Tools, Contacts & Resources	Outcomes/Outputs/Time Frames
	(KY & NC) TOSC at Georgia Institute of Technology.	

Objective 4.3: Ecosystems. Protect, sustain, and restore the health of natural habitats and ecosystems.

Overview:

Region 4 is unique in the amount of natural landscape that supports pure water, clean air and natural habitat for many threatened and endangered species. For example, more than 33% of the nation's wetlands (lower 48 states), 16% of the nation's total river miles, and 25% of the nation's shoreline are in Region 4. Also, 60% of the Southeast is covered by forest and we have the greatest species diversity in the U.S. for aquatic species. Our eight states are also among the top 15 states with the highest number of threatened and endangered species. The fastest growing coastal region in the country is located in Region 4. Unique habitats and ecosystems of national and international significance are found across the southeast, including the Everglades, North America's only living barrier coral reef, and the Southern Appalachians. However, rapid growth and development across the eight states is impairing many of these natural resources and impacting the Region's ability to address EPA's core mission and goals.

Sub-objective 4.3.1: Protect and Restore Ecosystems. Facilitate the ecosystem-scale protection and restoration of natural areas.

Regional Condition/Approach:

Region 4 has developed an ecological hub and corridor network across the region that identifies, geographically, important areas that protect natural resources, environmental benefits and quality of life for the communities in the southeast. Region 4 is working with regional programmatic staff to integrate the Southeastern Ecological Framework into the decision support structure of daily decision-making that is responsible for protecting, sustaining or restoring the health of natural habitats and ecosystems.

Geospatial tools are also being developed to improve the Regions ability to work with local groups, county officials and state government agencies in support of ecosystem protection. Characterizations of the landscape condition are being developed based upon input from federal, regional, state, local and non-profit partners as well as EPA programmatic activities. Region 4 will continue to utilize this innovative approach to support synergistic environmental protection to address urban growth and developmental pressures across the southeast.

Primary Measures of Progress:

- Number of partnerships supporting ecosystem protection.
- Number of acres in conservation or protected.
- Number of science based indicators to assess ecological condition.
- Number of acres of habitat restored and/or protected.

Regional/National Strategic Targets	Tools, Contacts & Resources	Outcomes/Outputs/Time Frames
By 2008, Region 4, working with its partners and ORD labs, will have science based indicators to assess ecological condition across 6 essential ecological attributes: 1) Landscape Condition, 2) Biotic Condition, 3) Chemical and Physical Characteristics, 4) Ecological Processes, 5) Hydrology and Geomorphology, and 6)	EPA's Science Advisory Board, Regional Environmental Vulnerability Assessment Program under EPA ORD lab at RTP, Scientists at Gulf Breeze, Las Vegas and Corvallis ORD Labs, Federal Natural Resource Agency's in the Southeast, EPA Hqs and ORD Offices, and Regional/National Non-profit	- Improvement of Southeastern Ecological Framework within two years of the completion of the 2000/2001 National Land Cover Data set for the region. - Complete one science based indicator for each of the 6 Essential Ecological Attributes by 2008.

Regional/National Strategic Targets	Tools, Contacts & Resources	Outcomes/Outputs/Time Frames
Natural Disturbance Regimes and apply those indicators to characterize the state of the environment across the Region.	Organizations, Sates and the Regional Ecosystem Protection Network. Contact: Rick Durbrow 404-562-8286	
Through 2008, every EPA program in Region 4 has routine access to, and regularly uses, geospatial data and decision support tools on eco-regions, ecosystems, and critical ecological features in their decisions and actions.	National and Regional program staff, ORD scientists, Science Advisory Board, National Center for Environmental Economics and each State in the region. The Southeastern Ecological Framework GeoBook. Regional Ecosystem Protection Network national workgroup Contact: Rick Durbrow 404-562-8286	<ul style="list-style-type: none"> - Enhance existing geospatial tools to directly support one state application of information dissemination in the Region by 2005. - Complete prototype for GIS information dissemination tool designed for programmatic applicability by 2004. - Expand Region 4 Data Atlas and metadata that support program goals and objectives by 2006.
By 2008, protect or restore an additional 80,000 acres of habitat within the study areas for the 6 estuaries that are part of the National Estuary Program (NEP).	Implement CCMP's/fund priority demo projects. Contact: Coastal Section	- Number of acres restored as tracked by NEPs and Hqs. 2002 Baseline is 0 acres of habitat restored.
By 2008, 50% of NEP priority action plans in CCMPs will be completed, excluding those action items of an ongoing nature.	Implementation of CCMPs. Contact: Coastal Section	- CCMP implementation tracking system.
By 2005, all Region 4 NEPs will have completed long-range finance plans to fund implementation and monitoring of their Comprehensive Conservation Management Plans (CCMPs).	NEP training classes and local workshops; HQ and Regional Assistance. Contact: Coastal Section	- NEP annual reports and HQ reports.
By 2008, 100% of the NEPs will have revised monitoring plans in support of their CCMP Management Actions, including active volunteer monitoring programs.	Guidance documents from HQ, local NEP workshops and TAC meeting. Contact: Coastal Section	- Track via NEP annual reports.
As required by the National marine Sanctuaries Program Amendments Act of 1992, continue to implement the Water Quality Protection Program for the Florida Keys national Marine Sanctuary.	Continue to work with other federal, state, regional, and local government agencies to implement wastewater and storm water master plans for the Florida Keys. Contact: South Florida Office	<ul style="list-style-type: none"> - Support implementation of Florida Keys wastewater master plan. - Support implementation of Florida Keys storm water master plan.
As recommended by the U.S. Coral Reef Task Force, develop and implement a local action strategy for Southeast Florida to improve implementation of the National Action Plan to Conserve Coral Reefs.	In partnership with the U.S. Coral Reef Task Force, assist other federal, state, regional, and local government agencies with the development of a Coral Reef Conservation and Management Plan for Southeast Florida.	- Complete the development of the draft Coral Reef Conservation and Management Plan for Southeast Florida by 2004.

Regional/National Strategic Targets	Tools, Contacts & Resources	Outcomes/Outputs/Time Frames
<p>By 2010, the evaluation of local and regional Safe Drinking Water Act (SDWA) and Clean Water Act (CWA) issues involving the use of Aquifer Storage and Recovery (ASR) wells for Everglades Restoration will be resolved.</p>	<p>The EPA South Florida Office (SFO), with the technical and programmatic support of the Region 4 UIC Program, will continue to review the study plans and outputs of the ASR Pilot Projects and Regional Studies being conducted in support of the Comprehensive Everglades Restoration Program. Contact: South Florida Office</p>	<p>- From 2003 to 2010 a number of reports/results of pilot well testing and regional studies to evaluate the efficacy of ASR and Recovery technology for storing and recovering excess surface water in South Florida will be produced. These data will determine if the ASR technology can store an acceptable quantity of recoverable water while complying with SDWA and CWA requirements.</p>
<p>By the end of 2003, working with the State of Florida (State), the U.S. Army Corps of Engineers (COE), and the South Florida Water Management District (SFWMD), develop a guidance document addressing Water Quality Considerations for components of the Comprehensive Everglades Restoration Project (CERP).</p>	<p>The EPA South Florida Office (SFO), in cooperation with the State, the COE, and the SFWMD is developing a guidance document for use by project personnel involved with the development of project plans for the CERP components. The purpose of this document is to ensure that water quality protection/enhancement of the Everglades Ecosystem is facilitated through the implementation of the CERP projects.</p>	<p>- By the end of 2003, a CERP Water Quality Guidance document will be developed and distributed to all CERP project personnel.</p>
<p>By 2005, regional aquatic nuisance species monitoring protocols including rapid response plans will be adopted by all 6 NEPs.</p>	<p>Technical assistance/NEPs. Contact: Coastal Section</p>	<p>- Reduced impacts to coastal ecosystems.</p>
<p>On a continuous basis, review components of the Comprehensive Everglades Restoration Program compliance with Clean Water Act, NEPA, and Safe Drinking Water Act requirements. Contact: South Florida Office</p>	<p>Represent EPA on the South Florida Ecosystem Restoration Task Force/Working Group. Represent the Agency in interagency meetings with other federal, state, regional and local governments reviewing components of the Comprehensive Everglades Restoration Plan. . Representing the Agency on the South Florida Water Management District's Water Resources Advisory Commission. Represent the Agency on the Science Coordination Team and the Florida Bay Program Management Committee for the South Florida Ecosystem Restoration effort. Contact: South Florida Office</p>	<p>- Provide annual reports of accomplishments associated with activities related to the development and implementation of the Comprehensive Everglades Restoration Program.</p>
<p>Support the development and implementation of the St. Johns River American Heritage River Initiative Restoration Plan by providing financial, technical,</p>	<p>Support the St. Johns River American Heritage River Initiative through the efforts of locally based "River Navigator".</p>	<p>- Prepares reports and strategy documents to facilitate increased stakeholder awareness and stewardship for the St. Johns River.</p>

Regional/National Strategic Targets	Tools, Contacts & Resources	Outcomes/Outputs/Time Frames
capacity building , and stakeholder involvement assistance.	Contact: South Florida Office	<ul style="list-style-type: none"> - By 2005, prepare a St. Johns River Restoration Plan in conjunction with all stakeholders. - By 2006, begin implementation of the Restoration Plan for the St. Johns River in cooperation with all stakeholders. - By 2005, facilitate TMDL development for the upper and middle portions of the St. Johns River Basin through stakeholder involvement.

Sub-objective 4.3.2: Increase Wetlands. By 2008, working with partners, achieve a net increase of 400,000 acres of wetlands with additional focus on biological and functional measures. (2002 Baseline: annual net loss of an estimated 58,500 acres.)

Regional Condition/Approach:

Region 4 will place an emphasis on wetlands protection through out regulatory responsibilities and place-based watershed activities. Region 4 is actively participating in the largest, most ambitious ecosystem restoration effort ever attempted, the South Florida Ecosystem Restoration Program, and is leading the effort to restore and maintain the Florida Keys coral reef ecosystem.

Primary Measures of Progress:

- Number of acres of wetlands gained, restored and/or protected.
- Number of stream miles restored and/or protected.

Regional/National Strategic Targets	Tools, Contacts & Resources	Outcomes/Outputs/Time Frames
Annually, beginning in FY 2004 and in partnership with the U.S. Army Corps of Engineers and states, achieve no net loss of wetlands under Section 404 of the Clean Water Act regulatory program.	404 permit reviews to minimize, avoid and mitigate for wetlands losses; State Wetland Program Development Grants; technical assistance. Contact: Wetlands Regulatory Section	- By 2008, permit reviews will continue to support meeting “no overall net loss” of wetlands by minimizing and avoiding wetland loss and mitigating for unavoidable losses.
By 2006 and each year thereafter, in partnership with the U.S. Army Corps of Engineers and states, obtain no net loss in wetland function based on quantifying functions gained and lost through mitigation for authorized wetlands impacts.	For wetlands protection and restoration, utilize the South Florida Wetlands Conservation Strategy in cooperation with other federal, State, regional, and local natural resource management agencies. For the South Florida Ecosystem, conduct 404 permit reviews to minimize, avoid and mitigate for wetlands losses; State Wetland Program Development Grants; technical assistance. For the South Florida Ecosystem, work with the Corps of Engineers, the State of Florida, local governments, the	- By 2008 implement the Water Quality Protection Initiative to minimize water quality degradation associated with projects permitted under the Section 404 program

Regional/National Strategic Targets	Tools, Contacts & Resources	Outcomes/Outputs/Time Frames
	<p>development community, and the South Florida Water Management District to develop and implement the South Florida Water Quality Protection Initiative .</p> <p>Conduct field/compliance inspections, prepare documentation supporting appropriate enforcement actions, and provide expert testimony for wetlands enforcement cases.</p> <p>Conducting field tests and providing comments on the Wetlands Functional Assessment Model (FUWMAM) being developed by the State of Florida.</p> <p>Review wetlands impacts associated with the implementation of the Comprehensive Everglades Restoration Plan.</p> <p>To protect coral reefs and sensitive near shore hard bottom habitat, participate on the interagency committee reviewing gas pipeline proposals.</p> <p>Working with the Corps of Engineers and permit applicants, minimize impacts of beach nourishment projects. (SFO)</p> <p>Provide ongoing training to stakeholders involved in the 404 permitting process.</p> <p>Participate in the review and development of mitigation banks through the Interagency Mitigation Bank Review Team for Florida. Contact: South Florida Office</p>	
<p>By 2008, 3 states will achieve overall net gains of wetlands by building capacities in wetland monitoring, regulation, restoration, water quality standards, mitigation compliance, and partnership building.</p>	<p>State Wetland Program Development Grants; technical assistance. Contact: Wetlands Regulatory Section</p>	<p>- By 2008, 3 states will have developed program capabilities to support wetlands gains through wetland monitoring, regulation, restoration, water quality standards, mitigation compliance, and partnership building.</p>
<p>By 2008, EPA will have provided and/or contributed significant financial and technical assistance for 39 watershed-based wetlands and stream corridor restoration projects (combined 5-Star and non-5-Star projects) [cumulative]</p>	<p>State Wetland Program Development Grants; technical assistance. Contact: Watersheds and Nonpoint Source Section</p>	<p>- By 2008, 39 watershed-based wetlands and stream corridor restoration projects have received financial and/or technical support.</p>

Regional/National Strategic Targets	Tools, Contacts & Resources	Outcomes/Outputs/Time Frames
By 2008, in support of restoring and managing wetlands and stream corridors, 250 major projects will have been completed in states and tribes that significantly improve the effectiveness of compensatory mitigation. [cumulative]	State Wetland Program Development Grants; technical assistance. Contact: Wetlands Regulatory Section	- By 2008, 10 projects will have been completed in states and tribes that significantly improve the effectiveness of compensatory mitigation.
By 2008, in support of monitoring and assessing the overall health of natural, restored and created wetlands and stream corridors, 150 major projects will have been completed in states and tribes that significantly improve state and tribal abilities to report their wetland/stream condition and extent.	State Wetland Program Development Grants; technical assistance. Contact: Wetlands Regulatory Section	- By 2008, 10 projects will have been completed in states and tribes that significantly improve state and tribal abilities to report their wetland and/or stream condition and extent.
By 2008, EPA will have provided and/or contributed financial and technical assistance for 1 watershed-based wetlands and stream corridor restoration projects in Indian Country.	State Wetland Program Development Grants; technical assistance. Contact: Watersheds and Nonpoint Source Section	- By 2008, 1 watershed-based wetlands and stream corridor restoration projects will have received financial and/or technical support.

Sub-objective 4.3.3: Improve the Aquatic Health of the Gulf of Mexico. By 2008, prevent water pollution and protect aquatic systems so that overall aquatic system health of coastal waters of the Gulf of Mexico is improved by 0.2 on the “good/fair/poor” scale of the National Coastal Condition Report. (2002 Baseline: southeast rating of fair/poor or 1.9 where the rating is based on a 5-point system where 1 is poor and 5 is good and is expressed as an arial weighted mean of regional scores using the National Coastal Condition Report indicator [i.e., water clarity, dissolved oxygen, coastal wetland loss, eutrophic conditions, sediment contamination, benthic health, and fish tissue contamination].)

Regional Condition/Approach:

Generally follows the Gulf of Mexico Strategic Management Plan and the Action Plan for Reducing, Mitigating, and Controlling Hypoxia in the Northern Gulf of Mexico documents.

Primary Measures of Progress:

- Improve condition of the Gulf of Mexico from current national indicator of 1.9.
- Number of impaired segments in priority coastal areas decreased from current 354.
- Acres of important coastal and marine habitats restored, enhanced or protected.

Regional/National Strategic Targets	Tools, Contacts & Resources	Outcomes/Outputs/Time Frames
By 2015, reduce releases of nutrients throughout the Mississippi River Basin to reduce the size of the hypoxic zone in the Gulf of Mexico to less than 5,000 km ² , as measured by the 5-year running average of the size of the zone. (Baseline: 1996-2000 running average size = 14,128 km ² .)	Action Plan for Reducing, Mitigating, and Controlling Hypoxia in the Northern Gulf of Mexico. Annual survey of areal extent of Gulf hypoxic zone. USGS's National Water Information System report of annual nitrate load discharged from Miss. River into the Gulf of Mexico. Annual nitrate load discharged to the Miss.- Atchafalaya Rivers by tributaries in LA and MS. Nitrate load diverted from Miss. River by water diversion projects implemented under Coast 2050 Plan. Acres of coastal wetlands restored by River diversions.	- Support the Action Plan for Reducing, Mitigating, and Controlling Hypoxia in the Northern Gulf of Mexico by facilitating research, monitoring, and modeling efforts that reduce uncertainties in the ecological and economic impacts of hypoxia.
By 2008, restore water and habitat quality in 20% of the impaired segments in the 12 priority coastal areas (i.e. 71 of the 354 segments) to levels that meet state water quality standards.	Gulf States' 303(d) Listings, Gulf of Mexico Program Strategic Management Plan GMPO Project Tracking Database Beach Closures; ISSC Surveys on trends in shellfish growing water quality: Fish Consumption Advisories issued by Gulf States.	- By 2008, watershed restoration actions will be implemented to restore beneficial uses in 71 of the impaired coastal segments.
Reduce the rate of shellfish borne <i>Vibrio vulnificus</i> illnesses caused by consumption of commercially-harvested raw or undercooked oysters by 60% on average for 2007 and 2008.	FDA, CDC, and Gulf State Epidemiologist. Annual Reports. Interstate Shellfish Sanitation Conference Surveys. Projects implemented to identify post-harvest treatment practices and technologies.	- Support the Gulf States and ISSC <i>Vibrio vulnificus</i> education efforts to achieve a 40% increase in awareness of risks and a 15% increase in at-risk consumers no longer eating raw oysters. - Assist the Gulf States in developing post-harvest treatment and management methods needed to achieve ISSC objective of increasing post-harvest treatment capacity of oysters intended for raw, half-shell market to 25%.
By 2008, assist all Gulf States in developing and implementing a scientifically sound, Gulf-wide monitoring program for total mercury/methyl mercury levels in fish tissue from recreationally and commercially important species; and in developing compatible fish consumption advisories and public	NOAA's <i>Chemical Contamination of Seafood from the Gulf of Mexico</i> . Consumption Advisories issued for mercury in the water bodies in the GMP Coastal Watersheds. Gulf States' 303(d) Listings. <i>A Survey of the Occurrence of Mercury in the Fishery Resources of the Gulf of Mexico</i> . Gulfwide Mercury in Tissue	- Assist in developing and implementing a Gulfwide fish tissue monitoring program for total mercury/methyl mercury for important commercial and recreational marine and estuarine species where data is lacking. - Establish a Project Team, composed of State and Federal agencies and in cooperation with non-

Regional/National Strategic Targets	Tools, Contacts & Resources	Outcomes/Outputs/Time Frames
outreach information regarding the health effects of methyl mercury..	Database and Interactive Mapper.	government interests, to evaluate current Gulf State approaches to setting fish consumption advisories for methyl mercury and to develop consistent fish consumption advisories for important commercial and recreational marine and estuarine species, and to develop a scientifically sound fish consumption survey of recreational, commercial, and subsistence fishermen for the Gulf Coast.
By 2004, establish a Lower Mississippi River Sub Basin Committee (as called for in the Hypoxia Action Plan).	<i>Action Plan for Reducing, Mitigating, and Controlling Hypoxia in the Northern Gulf of Mexico.</i>	- Continue support to States' efforts to maintain a Lower Mississippi River Sub-Basin Committee in accordance with the Hypoxia <i>Action Plan</i> and develop strategies for nutrient reductions.
Assist in the implementation of Louisiana's Coastal 2050 Plan to divert Mississippi River water and restore coastal wetlands in a manner that achieves a 15% reduction in the annual nitrate load from the River to the Gulf of Mexico.	Annual survey of areal extent of Gulf hypoxic zone. USGS's National Water Information System report of annual nitrate load discharged from Miss. River into the Gulf of Mexico. Annual nitrate load discharged to the Miss/Atchafalaya Rivers by tributaries in LA & MS. Nitrate load diverted from Miss. River by water diversion projects implemented under Coast 2050 Plan. Acres of coastal wetlands restored by River diversions.	- Assist in developing the technical and scientific feasibility studies and public outreach processes needed to support the design and implementation of both large and small-scale diversions to achieve maximum wetland restoration and nitrate removal.
By 2008, Support the Action Plan by assisting the states of Louisiana and Mississippi in implementing voluntary actions to reduce their annual nitrogen discharge to the Mississippi/Atchafalaya River Basin.	Annual survey of areal extent of Gulf hypoxic zone. USGS's National Water Information System report of annual nitrate load discharged from Miss. River into the Gulf of Mexico. Annual nitrate load discharged to the Miss/Atchafalaya River by tributaries in LA & MS. Nitrate load diverted from Miss. River by water diversion projects implemented under Coast 2050 Plan. Acres of coastal wetlands restored by River diversions.	- Support State efforts to develop comprehensive plans to identify measures that are voluntary, practical, cost-effective and based on adaptive management following the watershed approach.
By 2008, restore, enhance, or protect an additional 20,000 important coastal and marine habitats that are essential to the recreational and commercial fisheries of the Gulf, by 20,000 acres including the prevention and control of invasive species in U.S. areas of the Gulf.	Gulf Ecological Management Sites Program. The Nature Conservancy's Ecoregional Plan. NOAA's C-B Habitat Restoration Program. EPA's Five Star Habitat Restoration Partnership. GMPO Project Tracking Database. Aquatic Nuisance Species Management Plans developed for the coastal areas by the Gulf States.	- Initiate projects to restore, enhance, or protect 2,400 acres per year of coastal and marine habitat.

Regional/National Strategic Targets	Tools, Contacts & Resources	Outcomes/Outputs/Time Frames
By 2008, complete a survey of hypoxic conditions off the coasts of Louisiana and Texas, from the MS River delta west to Galveston Bay.	Action Plan for Reducing, Mitigating, and Controlling Hypoxia in the Northern Gulf of Mexico.	- Support use of EPA's vessel OSV <i>Anderson</i> in performing a transect study of the hypoxic zone in the winter, spring, and fall in support of model development.
By 2008, extend the Northern Gulf Littoral Initiative model grid westward by xx acres, couple the watershed model and the water quality model in order to identify and characterize nonpoint source loadings from near coastal watersheds and assess the effect.	Northern Gulf of Mexico Littoral Initiative. Critical Scientific Research Needs Assessment for the Gulf of Mexico Program.	- Facilitate research, monitoring, and modeling efforts to implement coordinated federal/state program to develop eutrophication model for the Northern Gulf hypoxic zone.
By 2008, implement a strategy to create and implement a wetland based, nitrogen system.	EPA Nitrogen Farming Study.	- Support and coordinate efforts of ecological scientists throughout the U.S. to recommend and identify specific methods and locations to create and/or restore wetlands and riparian ecosystems located between farmland and streams and rivers.
By 2004, working with the U.S. Army Corps of Engineers (COE) and the State of Florida, initiate the implementation of the recently developed Section 404 Water Quality Initiative in Southwest Florida.	Working with the COE and the State of Florida, the EPA South Florida Office has developed a water quality initiative for Southwest Florida (the fastest growing coastal region in the country) for the purpose of helping ensure that new residential and commercial developments don't cause or contribute to the degradation of the water quality in the coastal areas of the region.	- For certain categories of developments in Southwest Florida, the COE has agreed to incorporate more stringent requirements in their Section 404 wetlands permits for dealing with Stormwater runoff. These more stringent requirements will be incorporated into permits starting in 2003. - In 2003, the State of Florida will conduct a reevaluation of the Stormwater requirements for permits issued in the area. Rule-making will be initiated by the State to address any deficiencies. Rule modifications should be completed by 2006.

Objective 4.4: Enhance Science and Research. Through 2008, provide a sound scientific foundation for EPA's goal of protecting, sustaining, and restoring the health of people, communities, and ecosystems by conducting leading-edge research and developing a better understanding and characterization of environmental outcomes under Goal 4.

Overview:

Generally follows National approach.

Sub-objective 4.4.1: Apply the Best Available Science. Through 2008, identify and synthesize the best available scientific information, models, methods and analyses to support Agency guidance and policy decisions related to the health of people, communities, and ecosystems.

Regional Condition/Approach:

Generally follows national program.

Primary Measures of Progress:

- Fish tissue database on mercury.
- Baseline data on mercury.

Regional/National Strategic Targets	Tools, Contacts & Resources	Outcomes/Outputs/Time Frames
<p>Mercury Cycling in the Hypoxic Zone of the Northern Gulf of Mexico Research Project to test the hypothesis that the methylation of mercury is enhanced in the large scale hypoxic zone which occurs each year off the mouth of the Mississippi River. The belief is that the nutrient/hypoxia/ mercury methylation interaction enhances the conversion of inorganic mercury to methyl-mercury by sulfate reducing bacteria. Concentrations of methyl mercury in excess of the human health criterion are observed to be occurring in marine fish in the northern Gulf of Mexico.</p>	<p>The research vessel, Anderson will be used to sample 40 sites, 14 in the hypoxic zone; use of clean sampling and analytical methods for trace level total and methyl mercury in water, sediment, plankton, TSS, turbidity, pH, TN, TKN, NO₂, NO₃, NH₄, TP, TOC, sulfate/sulfide, Si and Chl samples. Hydrographic profiles for depth, temperature, salinity, dissolved oxygen and optical properties for each sampling station will also be obtained. Contacts: Jerry Stober (R4SESD), Bob Howard (R4WMD), Philip Crocker (R6WMD)</p>	<ul style="list-style-type: none"> - Determine whether cycling of mercury in the Gulf of Mexico has a strong interaction with the excess nutrients resulting in increased concentrations of methyl mercury in marine organisms in the northern Gulf of Mexico. - Development of critical baseline data on mercury. - Provide scientific data for mercury and nutrient modeling for the northern Gulf of Mexico and support future TMDL's development for river loading. - Provide scientific data as to the need to accelerate nutrient runoff and atmospheric mercury controls in the Mississippi River basin. - A final report and a peer reviewed publication.
<p>Comprehensive assessment of mercury within the Gulf of Mexico through: (a) Coordinate future tissue monitoring Gulf-wide for a defined subset of species; (b) Standardize and implement a method for collecting and analyzing mercury samples for pelagic migratory species in federal waters implemented, (c) Obtain consistent fish length information.</p>	<p>Contact: Jerry Stober (R4SESD)</p>	<ul style="list-style-type: none"> - Development of fish tissue database on mercury. - Development of a pelagic migratory species standard for collecting and analyzing mercury.
<p>Comprehensive assessment of mercury within the Gulf of Mexico, including: (a) Obtain additional data for popular recreational species (dolphin, red snapper, white grunt, greater amberjack, and yellowfin tuna); (b) Implement further studies of popular recreational species (red drum and black drum) and king mackerel in the relationship between concentration and fish size; (c) Facilitate Gulf states to key off each other to develop comparative information; (d) Conduct similar studies to the, "A survey of the Occurrence of Mercury in the Fishery Resources of the Gulf of Mexico" study identified only 3 recent seafood consumption studies across all Gulf States</p>	<p>Contact: Jerry Stober (R4SESD)</p>	<ul style="list-style-type: none"> - Development of a mercury data base on recreational fishing species.

Regional/National Strategic Targets	Tools, Contacts & Resources	Outcomes/Outputs/Time Frames
<p>“Methyl mercury in Marine Fish: A Gulf-wide Initiative” designed to expand the monitoring of mercury in fish over a range of sport and commercial species across the geographic area of the northern Gulf of Mexico.</p>	<p>Gulf-wide survey to collect tissue from sport and commercial fish species for mercury analysis. Use Direct Mercury Analyzers in each State. Encourage and facilitate development of a common centralized database on mercury in marine fish tissue. Encourage and facilitate development of a fish consumption survey of recreational anglers. Encourage and facilitate development of an education and outreach strategy, including development of new materials to educate the public on risks associated with consumption of mercury contaminated seafood. Contacts: Jerry Stober (R4SESD) and Ron Lukens, Associate Director of GSMFC, Ocean Springs, MS.</p>	<ul style="list-style-type: none"> - Provided scientific data to determine whether consistent seafood consumption advisories and common advisory levels should be established for Hg in fish tissue. - Content, sulfate/sulfide and other factors; and identification of critical knowledge gaps.
<p>Continue the Impartial South Florida Ecosystem Assessment to evaluate the restoration changes being made to this Ecosystem using a comprehensive EMAP strategy. Numerous changes to the Ecosystem have occurred since the last assessment.</p>	<p>Monitoring program, EMAP and 1993 - 1999 assessment/baseline. Previous assessments were carried out by Region 4 SESD from 1993 to 1999 and reported in numerous reports which are posted on the Region 4 website. Contact: Jerry Stober (SESD)</p>	<ul style="list-style-type: none"> - Determine if the restoration changes to the Ecosystem during the past 5 years are beneficial to the ecosystem. - Determinations of stressor interactions within the Ecosystem with special focus on hydro patterns, eutrophication, habitat alteration and mercury contamination.
<p>As required by the Florida Keys National Sanctuary (FKNMS) and Protection Act of 1990 and the national Marine Sanctuaries Program Amendments Act of 1992, continue to implement the Water Quality Protection Program for the FKNMS, including the long-term status and trends monitoring program, special studies projects, data management program, and the public education and outreach program.</p>	<p>Continue the comprehensive, long-term, status and trends monitoring program, including coral reef and sea grass monitoring projects for the Water Quality Protection Program of the Florida Keys National marine Sanctuary. Continue the comprehensive, long-term status and trends water quality monitoring project for the Water Quality Protection Program of the Florida Keys National marine Sanctuary. Continue to conduct special studies associated with the Water Quality Protection program for the Florida Keys National marine Sanctuary. Continue the Data Management Program for the Water Quality Protection Program of the Florida Keys National Marine Sanctuary. Continue to provide funding and other resources to support the public education and outreach program of the Florida Keys National marine Sanctuary. Contact: South Florida Office</p>	<ul style="list-style-type: none"> - Produce annual comprehensive reports and executive summaries for the water quality, sea grass, and coral reef monitoring projects. - Produce final reports for special studies projects. - Provide on an annual basis, CDs and/or Internet access to all monitoring data and other technical information produced by the Water Quality Protection Program - Assist with continued production of educational brochures/pamphlets and television program.

Regional/National Strategic Targets	Tools, Contacts & Resources	Outcomes/Outputs/Time Frames
Participate in ORD's Regional Research Partnership Program.	Contact: Tom Baugh	- Increased program interaction with ORD research community.

Sub-objective 4.4.2: Conduct Relevant Research. Through 2008, conduct research that contributes to the overall health of people, communities, and ecosystems. Focus research on pesticides and toxics; global change; and comprehensive, cross-cutting studies of human, community, and ecosystem health.

Regional Condition/Approach:

Generally follows national program.

Primary Measures of Progress:

- Number of restoration acres identified as beneficial to ecosystem.

Regional/National Strategic Targets	Tools, Contacts & Resources	Outcomes/Outputs/Time Frames
Participate in the ORD/Regional Science Program.	Regional Science Liaison position; facilitate communication of ORD science to the regions; manage the Regional Applied Research Effort (RARE) and the Regional Methods Initiative (RMI); plan and conduct Regional Science Topic Workshops and other science related activities; ORD lead-region-related activities; participate in Science to Achieve Results (STAR) grant relevancy reviews; assist in identifying and presenting high priority, cross-regional research needs; and manage the Region 4 Science Council. Contacts: Tom Baugh and Beth Walls	- Funding of priority RARE & RMI projects - RARE funding has doubled. - Increased understanding of and partnership with ORD. The Region's Science Liaison is fully funded by ORD.

Goal 5: Compliance and Environmental Stewardship

Objective 5.1: Improve Compliance. By 2008, maximize compliance to protect human health and the environment through compliance assistance, compliance incentives, and enforcement by achieving a 3% increase in the pounds of pollution reduced, treated, or eliminated, and achieving a 3% increase in the number of regulated entities making improvements in environmental management practices. (Baseline to be determined for 2005)

Regional Conditions:

In the Southeast, we face unique problems that require the use of compliance assurance tools. Over the past ten years we have experienced extensive growth – in terms of population as well as industry. This has contributed to non-attainment problems, overload of aging infrastructures, and impacts to our wetlands and waterways from run-off and other issues associated with construction and the built environment. Some of these problems are associated with the over 9,400 active air sources, 29,000 RCRA large and small quantity generators and almost 1,400 active CWA majors representing approximately 18%, 13% and 21%, respectively, of these sources nationwide. These facilities report releases of over 643 million pounds of pollutants per year into our water, air and land. While regulation and standards development, as well as effective permitting, play a major role in maintaining the balance between growth and environmental improvement, ensuring compliance also plays a key role.

Region 4's compliance assurance program will be directed at addressing sources that contribute to these problems as a result of noncompliance. Focal areas will include: storm water, CSO/SSOs, particulate matter, wetlands, and PBTs (persistent, bioaccumulative and toxic chemicals). In addition, resources will be directed to issues such as air toxics, lead, worker protection standards, and public drinking water that pose a risk to sensitive communities, including concerns associated with environmental justice and children's health.

Regional Approach:

Region 4's strategic approach to ensuring compliance with environmental regulations lies in four critical areas: 1) joint planning/priority setting with our states, 2) applying the appropriate compliance assurance tools to identified problems, 3) targeting our efforts towards noncompliance that will produce the greatest environmental/human health benefit, and 4) measuring the results of our efforts. This strategy is made possible based on the sound technical, legal, scientific, and administrative resources directed to the compliance assurance program.

Joint Planning With States. For the last couple of years, Region 4 has been promoting joint planning with our eight states as a way to ensure that the highest priority problems are being addressed by the state, the region, or collaboratively by both. This will continue as a priority for the region. Through the upfront dialogue with each of our states on priorities and desired results, we will be able to maximize the results at all levels as well as provide an agreed upon baseline from which to assess and report performance. Moreover, we believe that focused attention in this area will lead to more innovative ways to solve problems by focusing on areas posing higher risk to human health and the environment and offering the greatest opportunity to achieve maximum pollutant reduction.

Smart Use of Tools. Region 4 views smart enforcement as directing our enforcement and compliance assurance resources to correcting noncompliance problems that are posing the greatest threat to or impact on priority environmental/human health problems. Whether priorities are identified at the national, regional, or state level, it is our objective to assess the objectives of the various priorities and then determine the appropriate mix of tools as well as the relative level of effort to be devoted to the problem. This approach will lead not only to bringing significant federal cases, but also to achieving measurable results or credible deterrence from the application of compliance monitoring, compliance assistance, pollution prevention, and compliance incentives as well as innovative approaches.

Targeting Our Efforts. The vast number of regulated facilities in the region dictates that Region 4 prioritize where we devote our limited resources. With our vast numbers of power plants, children with elevated blood levels of lead, potential environmental justice communities, and antiquated sewer systems, the region has far more areas of critical concern than resources. Thus, our efforts will be targeted toward the sectors, geographic areas, communities, or individual noncomplying sources to address compliance issues in a way to maximize benefits. This may be accomplished via direct federal action/activities, state action/activities, joint actions/activities, voluntary approaches by the regulated community, and/or collaboration with stakeholders or assistance providers.

Measuring Our Results. The region will support the national strategic measures by reporting via ICIS as well as the program-specific data systems (i.e., PCS, RCRA Info, AFS). In addition to the traditional measures such as number of enforcement cases, penalties collected, etc., the region will be directing additional effort and resources to capture more

outcome measures (i.e., pounds of pollutants eliminated, change in behavior or understanding, etc.) Progress in this area will be highly dependent on receiving tools and support from OECA. In addition, given our expressed desire to work more collaboratively with our states, we will be seeking opportunities to engage our states on identifying elements beyond the traditional outputs that could be collected to reflect state activity and the states' contribution to helping meet the national goals.

Primary Measures of Progress:

Amount of pollution reduced, eliminated, treated as a result of enforcement actions or supplemental environmental projects/

% of enforcement actions requiring that pollutants be reduced, treated or eliminated.

Actions taken to increase compliance.

% of entities reporting increased understanding of environmental requirements as a result of compliance assistance.

% of entities reporting that they reduced, treated or eliminated pollution as a result of compliance assistance.

Number of regulated entities reporting improved environmental management practices as a result of compliance assistance.

% of facilities that use EPA incentive policies to conduct environmental audits or other actions that reduce, treat or eliminate pollution or improve environmental management practices.

Number of complying actions taken during inspections.

% of enforcement actions requiring improvement of environmental management practices.

Sub-objective 5.1.1: Compliance Assistance. By 2008, prevent noncompliance or reduce environmental risks through EPA compliance assistance by achieving: a 3% increase in the percent of regulated entities that improve their understanding of environmental requirements; a 3% increase in the number of regulated entities that improve environmental management practices; and a 3% increase in the percentage of regulated entities that reduce, treat, or eliminate pollution. (Baseline to be determined for 2005)

Strategies	Tools	Performance Measures	Region 4 Programs
<p>Increase awareness of new regulations within the regulated community.</p> <p>Increase awareness of federal- lead programs within the regulated community.</p>	<p>Develop regulation-specific compliance assistance material related to MACT standards.</p> <p>Disseminate compliance assistance materials via state/local programs and other providers or directly to targeted industry sectors.</p> <p>Respond to all calls and contacts from industry regarding federal-lead programs (i.e., CFCs, TSCA, EPCRA).</p> <p>Provide Agency staff, as requested, for speaking engagements related to regulatory and/or enforcement programs.</p>	<p>Number of entities reached through direct mailings.</p> <p>Number of entities reached through telephone calls.</p> <p>Number of presentations and audience reached.</p>	<p>Air Division</p>

Strategies	Tools	Performance Measures	Region 4 Programs
<p>Conduct compliance assistance activities for targeted sectors and areas of concern (e.g., EJ). Utilize tools such as outreach, workshops, and the audit policy. Pollution prevention will be incorporated whenever possible.</p>	<p>Focal areas include:</p> <ul style="list-style-type: none"> - small business community; - colleges and universities; - EPCRA Sections 304, 311, and 312 / CERCLA Section 103 for sectors with targeted chemicals of concern (including PBTs); -EPCRA Sections 304, 311, and 312 / CERCLA Section 103 for entities in Environmental Justice areas - Sectors of industry for storm water - municipalities for MOM and sludge - Worker Protection Standards - real estate Notification & Disclosure Rule - lead safe work practice standards in renovation & paint removal projects - RCRA Galvanizing Industry - risk management plans 	<p>Number CA materials distributed;</p> <p>Number mailings on key compliance issues;</p> <p>Number attending workshops;</p> <p>Number of entities reached through on-site visits;</p> <p>Change in compliance rate (as appropriate)</p> <p># recertifications conducted (Safe work standards)</p>	<p>EAD, EPCRA , TSCA, MOM, Sludge, PWSS, FIFRA, RCRA</p>
<p>Foster Effective Partnerships with States regarding Compliance Assistance</p>	<p>Continue progress initiated by the formation of the Regional Compliance Assistance/Compliance Incentives Workgroup.</p> <p>Analyze data and other information to identify sectors or problems that could benefit from an integrated approach that utilizes CA as well as other incentives and enforcement if necessary.</p> <p>Work with associations, industry and States in conducting workshops, targeting sectors for compliance assistance visits and developing compliance manuals</p> <p>Partner with State Small Business Assistance Programs</p>	<p># of joint projects</p> <p># of states participating</p>	<p>All Divisions</p>

Strategies	Tools	Performance Measures	Region 4 Programs
<p>Improve the compliance and environmental performance of federal facilities by encouraging use of targeted compliance assistance tools</p>	<p>Encourage routine self environmental auditing and conduct EMRs as appropriate; conduct workshops; promote development and use of environmental management systems</p>	<p># of facilities receiving assistance</p> <p># of outreach materials mailed/distributed</p> <p># of pre/post tests distributed at workshops</p> <p># of respondents indicating that they have or expect to reduce pollution after CA .</p>	<p>EAD/FedFacilities</p>
<p>Promote Pesticide Stewardship</p>	<p>Continue participation as active member of Region 4 Stewardship Committee</p> <p>Actively participate in the Headquarters Pesticide Environmental Stewardship Program</p> <p>Use the Urban initiative to promote pesticide stewardship</p> <p>Use outreach mechanisms such as Alphabet Soup</p>	<p>Number of meetings held and number of participants</p> <p>Number of grant requests received and funded through PESP</p> <p>Number of outreach activities conducted under the Urban Initiative</p> <p>Estimation of people reached through Urban Initiatives</p> <p>Number of recipients of Alphabet Soup</p>	<p>Pesticides</p>

Sub-Objective 5.1.2: Compliance Incentives. By 2008, identify and correct noncompliance and reduce environmental risks through a 3% increase in the percentage of facilities that use EPA incentive policies to conduct environmental audits or other actions that reduce, treat, or eliminate pollution or improve environmental management practices. (Baseline to be determined for 2005)

Strategies	Tools	Performance Measures	Region 4 Programs
Provide compliance incentives to sectors of industry or municipalities	Offer self-assessment/self-disclosure to selected sectors or municipalities for CWA and PWSS	<p># facilities offered to participate in self assessment.</p> <p># facilities participated in self assessment</p> <p>\$ invested by facilities in improving environmental management through audit policy</p>	MOM 404 SDWA
Encourage the regulated community to use Agency policies on self-disclosure, small businesses, small communities, and supplemental environmental projects.	<p>Contacts and communications with the regulated community during inspections, FCEs and investigations.</p> <p>Contacts and communications with the regulated community during speaking engagements, workshops and other forums</p> <p>Contacts and communications with the regulated community through calls and letters requesting assistance.</p> <p>Encourage respondents and defendants to recommend and implement SEPs.</p>	<p>Number of <i>Information Sheet: U.S. EPA Small Business Resources</i> distributed.</p> <p>Number of entities self-disclosing violations under the audit policy</p> <p>Number of entities self-disclosing violations under the SBCP</p> <p>Number of participants in industry sector specific compliance incentive programs (i.e., Bakery Partnership Program).</p> <p>Number of settled enforcement actions that include SEPs.</p> <p>\$ invested by facilities in improving environmental management through audit policy</p> <p># of NODs and/or other mechanisms completed for resolving self disclosures</p>	Air Division, EAD

Strategies	Tools	Performance Measures	Region 4 Programs
<p>Improve the compliance and environmental performance of federal facilities by encouraging self disclosure</p>	<p>Encourage routine self environmental auditing and conduct EMRs as appropriate; conduct workshops; promote development and use of environmental management systems</p> <p>Improve the compliance and environmental performance of federal facilities in the area of OPA/SPCC through targeted promotion of the audit policy.</p>	<p># of facilities reached</p> <p># of facilities self disclosing violations</p> <p># of violations discovered in enforcement targeted inspection phase after disclosure period</p> <p>% of audits conducted resulting in better environmental management</p>	<p>EAD/FedFac</p>

Sub-Objective 5.1.3: Monitoring and Enforcement. By 2008, identify, correct, and deter noncompliance and reduce environmental risks through monitoring and enforcement by achieving: a 3% increase in the number of complying actions taken during inspections; a 3% increase in the percentage of enforcement actions requiring that pollutants be reduced, treated, or eliminated; and a 3% increase in the percentage of enforcement actions requiring improvement of environmental practices.

Strategies	Tools	Performance Measures	Region 4 Programs
<p>Address violations which cause the most significant environmental and public health problems in the Southeast, including environmental justice (EJ) areas and issues related to children's health..</p>	<p>Targeted inspections and enforcement actions in high priority areas.</p> <p>In addition to core NPDES, CAA, RCRA programs, critical areas include:</p> <ul style="list-style-type: none"> -MOM -wetlands -PWSS -toxic spills -PCB transformers -EPCRA -lead -CAA 112(r) -worker protection standard 	<p>Number of inspections and FCEs conducted.</p> <p>Number of investigations conducted.</p> <p>Number of enforcement cases.</p> <p>Number of high profile enforcement cases.</p> <p>Pounds/tons of pollutant decreases that are reported as a result of enforcement actions and SEPs.</p> <p>Number of multimedia investigations.</p> <p>Increase in compliance rate</p> <p>\$ of SEPs and injunctive relief actions to remediate or eliminate hazardous conditions</p> <p># of enforcement actions taken in EJ areas</p>	<p>Air, EAD, CWA, PWSS, UIC, UST, RCRA, EPCRA, TSCA, FIFRA Programs</p>

Strategies	Tools	Performance Measures	Region 4 Programs
<p>Maintain a credible deterrent to noncompliance at all facilities</p>	<p>Conducting inspections and Full Compliance Evaluations (FCEs).</p> <p>Conducting investigations.</p> <p>Investigate tips & complaints</p> <p>Monitoring OECA's "Watch List".</p> <p>Cooperation with state/local partners.</p> <p>Maintaining a base enforcement program in federal lead programs (i.e., CFCs, TSCA, EPCRA).</p> <p>Publicizing enforcement actions.</p> <p>Penalties of sufficient size to serve as deterrence.</p> <p>Participation in multimedia investigations.</p>	<p>Number of inspections and FCEs conducted.</p> <p>Number of investigations conducted.</p> <p>Number of enforcement cases.</p> <p>Number of judicial referrals.</p> <p>Pounds/tons of pollutant decreases that are reported as a result of enforcement actions and SEPs.</p> <p>Number of multimedia investigations.</p>	<p>Air, EAD, CWA, PWSS, UIC, UST, RCRA, EPCRA, TSCA, FIFRA Programs</p>
<p>Participation in national enforcement initiatives and priorities.</p>	<p>Participation in national enforcement initiatives and priorities: PSD/NSR (e.g. coal-fired electric utilities; pulp and paper; Title V compliance certification monitoring; and MACT strategy implementation); wet weather; SDWA microbial, nonnotifiers; etc.</p>	<p>Number of inspections and FCEs in national initiative sectors.</p> <p>Number of investigations in national initiative sectors.</p> <p>Number of civil judicial referrals in national enforcement sectors.</p> <p>Number of administrative enforcement actions in national enforcement sectors.</p>	<p>Air , RCRA, NPDES, PWSS, EPCRA</p>

Strategies	Tools	Performance Measures	Region 4 Programs
<p>Maintain effective partnerships.</p> <p>Work jointly with the States in identifying priorities for enforcement and compliance</p> <p>Provide State Inspector Training to ensure competency in all Region 4 states.</p>	<p>Conduct joint planning with states.</p> <p>Conduct comprehensive overview of states</p> <p>Oversight of grants with state/local programs.</p> <p>Build state/local capacity through joint inspections and investigations.</p> <p>Build state/local capacity through EPA provided or sponsored training.</p> <p>Keep open communication with state/local partners to maintain national continuity and program consistency.</p> <p>Maintain oversight of state enforcement activities as they relate to the Agency's SNC/HPV and T & A policies.</p>	<p>Number of grant program reviews.</p> <p>Number of joint inspections, investigations, and enforcement actions.</p> <p>Number of EPA training opportunities.</p> <p>Number of state inspectors trained</p> <p>Number of oversight activities associated with state/local agencies SNC/HPV universe.</p> <p>Number of annual enforcement meetings and calls conducted with the State and local agencies.</p>	<p>Air, EAD, CWA, PWSS, UIC, UST, RCRA, EPCRA, TSCA, FIFRA Programs</p>
<p>Ensure the quality and accuracy of national data management and reporting systems.</p>	<p>Build state/local capacity in AFS, RCRA Info, PCS databases.</p> <p>Maintain accurate and complete federal data in ICIS, including case conclusion and inspection conclusion data</p> <p>Build state/local capacity in use of OTIS database.</p> <p>Maintain accurate and timely reporting in ACTS/NARS database.</p>	<p>Number of calls, meetings and training opportunities for state/local partners to maintain national continuity, program consistency, and data quality.</p> <p>Number of CCDS reports completed for enforcement actions.</p> <p>Number of ICDS reports completed for inspections and FCEs.</p>	<p>Air, EAD, CWA, PWSS, UIC, UST, RCRA, EPCRA, TSCA, FIFRA Programs</p>

Strategies	Tools	Performance Measures	Region 4 Programs
Deter noncompliance at Federal facilities	<p>Conduct multi-media and single media inspections at federal facilities</p> <p>Notify facilities of widespread non-compliance problems and encourage them to self audit and avail themselves of the audit policy.</p> <p>Follow up with targeted inspections and enforcement at those facilities that do not disclose</p> <p>Target for potential/OPA/SPCC violations</p>	<p># of inspections</p> <p># of enforcement cases</p>	Air, EAD, CWA, PWSS, UIC, UST, RCRA, EPCRA, OPA Programs
Seek areas where SEPs may be used in enforcement actions to ensure pollution reductions	Issuance of formal enforcement actions with SEPs that require remediation and/or construction.	# formal enforcement actions with SEPs that require reduction of pollutants.	II Programs/EAD legal
Utilize Integrated Strategies that incorporate all of the tools of the compliance assurance tool box including compliance assistance, incentives and enforcement.	<p>Consider use of integrated strategies to address compliance-related problems.</p> <p>Conduct wood preserving sector integrated strategy (FY 03-04)</p> <p>Conduct OPA/SPCC integrated strategy for federal facilities</p> <p>Conduct CWA MOM initiative</p>	<p># of Facilities in violation</p> <p># of facilities returned to compliance</p> <p># of facilities process changes</p> <p># of “uncontrolled sites” identified and contamination migration controlled</p> <p>Progress in corrective action activities improved</p>	RCRA; CWA: OPA: additional programs as strategies develop

Strategies	Tools	Performance Measures	Region 4 Programs
<p>Ensure compliance with FIFRA with emphasis on the following areas:</p> <p>Eliminate the sale of unregistered and misbranded pesticides sold through the internet and reduce the false advertising that appears on the internet</p> <p>Ensure that pesticides are labeled in accordance with FIFRA</p>	<p>Take enforcement actions for sale of pesticides in violations of FIFRA through the internet</p> <p>Work with Headquarters to implement the e:commerce strategy</p> <p>Take enforcement actions for false advertising violations</p>	<p>Number of complying actions taken during inspections</p> <p>% of enforcement actions requiring that pollutants be reduced, treated, or eliminated</p> <p>% of enforcement actions requiring improvement of environmental management practices.</p>	<p>Pesticides</p>
<p>Enforce the use of registered sources and ensure product integrity for imports</p>	<p>Conduct inspections to examine the imports of source materials</p> <p>Develop relationship with Customs to better understand and respond to import violations</p> <p>Conduct more thorough PEIs to include the review of source materials</p> <p>Take appropriate enforcement actions</p> <p>Issue press releases and utilize other outreach opportunities</p>	<p>Number of import related inspections</p> <p>Number of source related violations</p> <p>Number of enforcement actions</p>	<p>Pesticides</p>

Strategies	Tools	Performance Measures	Region 4 Programs
MOM will continue to integrate environmental management programs into actions taken as a result of environmental self-assessments or EPA environmental assessments.	<p>Issuance of formal enforcement actions that contain requirements for improved environmental management practices.</p> <p>Document \$ spent on environmental performance and management improvements in formal enforcement actions</p>	# formal enforcement actions issued with schedules for improved environmental management practices or institution of environmental management programs.	CWA/MOM
The Storm Water Program will institute sector based initiatives; i.e., auto salvage and construction, based upon water quality criteria and/or risk to human health and the environment.	Document inspections and enforcement actions resulting from the initiative/phases.	<p># of inspections performed</p> <p># of informal enforcement actions issued</p> <p># of formal enforcement actions issued</p>	Storm Water
PWSS will ensure that community water systems meet health-based standards	Document inspections and enforcement actions related to health-based standards	<p># of inspections performed</p> <p># of enforcement actions</p> <p>% of facilities in compliance for each year.</p>	PWSS
UIC will increase protection of ground water resources in 100% of high priority areas	Document inspections and enforcement actions in areas of source water, sole source aquifers, etc.	<p># of inspections performed</p> <p># of enforcement actions</p>	UIC

Objective 5.2: Improve Environmental Performance through Pollution Prevention and Innovation. By 2008, improve environmental protection and enhance natural resource conservation on the part of government, business, and the public through the adoption of pollution prevention and sustainable practices that include the design of products and manufacturing processes that generate less pollution, the reduction of regulatory barriers, and the adoption of results-based, innovative, and multimedia approaches.

Regional Conditions:

In the Southeast, we face unique problems. Over the past ten years we have experienced extensive growth – in terms of population as well as industry growth. This has contributed to non-attainment problems, overload of aging infrastructures, and impacts to our waterways from run-off issues associated with construction and the built environment. Region 4 is home to 1/4 of the Nation’s coastline with 50 ports of entry and over 32.5 million acres of wetlands. We have over 9400 active air sources, 29,000 RCRA large and small quantity generators and almost 1400 active CWA majors. These facilities report releases of over 643 million pounds of pollutants per year into our water, air and land. Prevention of pollution and innovation are critical areas to ensure protection of human health and the environment.

Regional Approach:

The region will establish goals and workplans to lead to contributions to the national strategic targets. Equal emphasis is placed on enhancing outreach to federal entities, industry, and small business.

Primary Measures of Progress:

Pounds of Pollution reduced through Pollution Prevention (P2) encouraged by RCRA and Solid Waste activities

BTU’s of energy conserved through P2 encouraged by Clean Air voluntary and regulatory activities.

Gallons of water conserved through P2 encouraged by Clean Water Act voluntary and regulatory activities.

Establish Green and Clean Indexes for Region 4 States.

Evaluate existing regional innovations projects to see if they can serve as models for environmental improvement.

% of significant impacts identified by EPA during the NEPA review of all major proposed Federal actions that are mitigated

Sub-objective 5.2.1: Prevent Pollution and Promote Environmental Stewardship by Government and the Public. Through 2008, reduce pollution and improve environmental stewardship practices of all levels of government. Demonstrate how government agencies can serve as stewards of the environment and assist them in meeting their responsibilities under the National Environmental Policy Act (NEPA). Raise the public’s awareness of actions it can take to prevent pollution.

Strategic Targets:

- By 2006, reduce TRI reported toxic chemical releases at Federal Facilities by 40%, from a baseline year of 2001.
- By 2008, EPA will go beyond compliance with executive orders to “green” federal government operations in its purchases of “green” products and services from a baseline year of 2002.
- By 2008, all Federal agencies will have defined Environmentally Preferable Purchasing (EPP) programs and policies in place and be expanding their purchases of available "green" products and services, from a baseline of one Federal agency in 2002.
- Through 2008, 70 percent of significant impacts identified by EPA during the NEPA review of all major proposed federal actions are mitigated.

- Through 2008, 90 percent of EPA projects subject to NEPA Environmental Assessment or Environmental Impact Statement requirements result in a finding of no significant environmental impact.

Strategies	Tools	Performance Measures	Region 4 Program
5.2.1 Develop regional EMS as mandated by EO.	Cross-program team to develop EMS.	Primary measure will be meeting time frames cited.	OPM Lead for Implementation.;PAB/EAD support All others support.
5.2.1 Develop Outreach Advocacy Program targeted to other Federal agencies with emphasis on EMS's.	Develop and implement regional that focuses on Greening the Government Executive Order. Conduct EMR's as appropriate and encourage development of comprehensive EMS's.	% of entities reporting change or improvement of environmental management practices	EAD/Fed Facs
5.2.1 Foster effective P2 partnerships with Federal facilities.	Memoranda of understanding with Federal facilities.	No. of MOAs.	P2 Program Manager with Program Support.
Reduce impacts on human and wildlife communities from expanded roadways and bridges	Review Federal/State transportation projects for impacts on urban and natural environments {i.e., Ohio River Bridges}	Reduced impacts from relocation of human communities; avoidance and minimization of impacts on wetlands and natural areas.	NEPA Program Office lead; Air/Water Divisions
Ensure water treatment facilities have minimum impacts on aquatic environment	Prepare EA/EIS on major projects [e.g., Tampa Bay Reservoir]	Improved siting; reduced impacted acres on uplands and wetlands habitats.	NEPA Program Office lead; Water and others in support
Reduce impacts from mining on upland, aquatic habitats	Review applicant plans and NEPA reviews [i.e., Ona Phosphate Mine]	Numbers of upland and wetland acres preserved or mitigated	NEPA Program Office and Wetlands Program
Reduce impacts of airports on urban communities	Review all major FAA airport expansion plans [i.e, Atlanta-Hartsfield]	Minimize noise, air, habitat impacts of runways on populated areas	NEPA Program Office lead

Strategies	Tools	Performance Measures	Region 4 Program
Reduce impacts on major water resource projects	Review all major flood control [i.e., Everglades restructuring] thru NEPA reviews	Improved water flows and water quality to natural wetland areas	NEPA Program Office and Wetlands Program

Sub-objective 5.2.2: Prevent Pollution and Promote Environmental Stewardship by Business. Through 2008, reduce pollution and improve environmental stewardship practices in business operations by adopting more efficient, sustainable and protective policies, practices, materials and technologies.

Strategic Targets:

- By 2008, reduce by 40 percent TRI chemical releases to the environment from the business sector per unit of production (“Clean Index”), and reduce by 20 percent TRI chemicals in production-related wastes generated by the business sector per unit of production (“Green Index”), from the baseline year of 2001
- By 2008, reduce waste minimization priority list chemicals in hazardous waste streams reported by businesses to TRI by 50% from 1991 levels.
- By 2008, across the Nation, reduce pollution by 76 billion pounds, conserve 360 billion BTUs of energy and 2.7 billion gallons of water, and save \$400 million, from a baseline year of 2003.
- By 2008, across the Nation, reduce 165 thousand metric tons of carbon dioxide (CO2) emissions through the Green Chemistry Challenge Awards, from a baseline year of 1996.

Strategies	Tools	Performance measures (outputs; outcomes)	Region 4 Programs
Develop Regional goals for water conservation and work plan for meeting those goals.	Work group/team to develop goal and plan for implementation	Completion of Regional work plan. Contribution to national target of gallons of water conserved	PAB Lead. Support from programs
Develop Regional Goals for Reducing Energy consumption by industry.	Work group/team to develop goal and plan for implementation	Contribution to national target developed for BTUs conserved and CO2 emissions reduced.	PAB Lead with support from programs. EAD- compliance assistance oppty
Compute Green and Clean Indexes for region 4 States and develop targeting Plans for TRI reductions.	Work group/team to develop trend charts and propose goal and plan for implementation	Decreasing Green and Clean Indexes. Contribution to National targets.	PAB lead with support from TRI and P2 Programs
Develop Regional targets and goals on waste prevented	Review national data source and determine regional goal	Wastes reduced in region 4	P2 Program and Waste Division

Sub-objective 5.2.3: Business and Community Innovation. Through 2008, achieve measurably improved environmental performance through sector-based approaches, performance-based programs, and assistance to small business.

Strategic Targets:

- By 2008, Performance Track members collectively will achieve an annual reduction of : 1.5 billion gallons in water use; 3,300,000 MMBTUs in energy use; 25,000 tons in material use; 450,000 tons of solid waste; 10,000 tons of air releases; and 19,000 tons in water discharges compared to 2001.
- Through 2008, the Region will work collaboratively with the Sector Strategies Program and participating business and service sectors to achieve aggregate reductions in environmental impacts of 15 percent in water use, energy use, waste generation or disposal, air releases, or water discharges. (Improvements will be measured from baselines selected in 2004 for individual sectors.)

Strategies	Tools	Performance Measures	Region 4 Programs
Develop Regional plan for implementation of OPEI Sector Initiative with emphasis on Regional priority sectors.	Agreements with trade associations, other sector representatives. OPEI sector “Champions”. Incorporate into state work plans, PPA’s. Regulatory flexibility for innovative proposals. Links to energy, water conservation work plans.	Number of agreements entered into. Emission reductions. Reductions in waste generated. Energy, water conservation.	PAB/EAD joint lead, with support from programs as needed.
Conduct outreach and develop partnerships to provide technical assistance for the for small business community	Regional workgroup for outreach, technical, and compliance assistance. Work plan development and implementation. Partner with State Small Business Assistance Programs	Completion of Regional work plan. # entities reached # providers engaged	EAD lead (compliance assistance focus) with support from P2 and Innovations Program Managers.

Strategies	Tools	Performance Measures	Region 4 Programs
Region 4 will continue to support Performance Track, expand participation, and to incorporate strategic targets.	<p>Workshops with existing and prospective NEPT facilities.</p> <p>Incorporation of national strategic targets into regional NEPT efforts.</p> <p>Facilitate the development of MOUs and partnerships with states that will lead to greater participation, incentives and environmental success stories for the program.</p> <p>Consider/offer Challenge Commitments to participants to achieve reductions in strategic areas</p>	<p>Number of facilities that participate in NEPT.</p> <p>Reduction in waste generated by member facilities</p> <p>Water conservation by member facilities</p> <p>Energy conservation by member facilities</p> <p>Emission reductions by member facilities.</p>	EAD
Region 4 will continue to provide support for State P2 programs through PPIS grants and other resources.	<p>Implement PPIS grants program..</p> <p>Support capacity-building efforts in state P2 and technical assistance programs.</p>	<p>No. of states with strong P2 and technical assistance programs.</p> <p>Facilities which receive P2 and/or technical assistance through state P2 programs.</p>	Regional P2 Program manager.

Sub-objective 5.2.4: Environmental Policy Innovation. Through 2008, achieve measurably improved environmental and economic outcomes by testing, evaluating, and applying alternative approaches to environmental protection in states, companies, and communities. This work will be targeted at improving the cost effectiveness and efficiency for regulatory agencies as well as regulated entities.

Strategic Targets:

- By 2008, facilities that partner to demonstrate alternative regulatory or technological approaches will collectively achieve an environmental improvement of 10 percent in water use, energy use, waste generation or disposal, air releases, or water discharges, or an increase of 10 percent in cost effectiveness or efficiency while achieving equal or improved environmental results. (Improved environmental performance from alternative approaches will be measured against the baseline year in which each project is initiated.)
- By 2008, state projects conducted under the State Innovation Grant Program, Environmental Results Program and the Joint EPA/State Agreement to Pursue Regulatory Innovation will collectively achieve an environmental improvement of 15 percent in water and energy use, waste generation or disposal, release of contaminants into the air or water, or habitat quality, or an increase of 15 percent in cost effectiveness or efficiency while achieving equal or improved environmental results. (Improved environmental performance from alternative approaches will be measured against the baseline year in which each project is initiated.)

Strategies	Tools	Performance measures (outputs; outcomes)	Region 4 division/programs
Evaluate Regional innovations projects.	Build performance measures and data gathering into project design. Obtain evaluation support and assistance from OPEI Evaluation Division.	No. of projects which undergo formal evaluation. Achievement of built-in performance measures.	PAB coordination lead. Other Divisions lead actual projects, support as necessary.
Based on scale-up proposals, Region 4 will implement significant systems changes as appropriate.	Implement identified innovations scale-ups.	No. of significant system changes that result from innovations scale-ups.	PAB coordination lead. Other Divisions lead actual projects, support as necessary.
As a result of evaluation process, Region 4 will propose scale-up of innovation projects as appropriate.	Identify successful innovations concepts and potential scale-up opportunities.	No. of innovations concepts or projects that are implemented on broader programmatic scale.	PAB coordination lead. Other Divisions lead actual projects, support as necessary.
Implement innovations projects consistent with Region 4 Innovations commitments.	Partnerships with local gov'ts for integrated environmental planning. Agreements for innovative approaches to air toxics control (e.g., PALs). Expand use of geospatial tools such as GeoBook. Expand use of the ERP model in regulatory program applications.	No. of innovations projects consistent with Regional commitments.	PAB coordination lead. Other Divisions lead actual projects, support as necessary.

Objective 5.3: Build Tribal Capacity. Through 2008, assist all federally recognized tribes in assessing the condition of their environment, help in building tribes' capacity to implement environmental programs where needed to improve tribal health and environments, and implement programs in Indian country where needed to address environmental issues.

Regional Conditions:

The six federally recognized tribes within Region 4 have 267,000 acres of land in five states, and serve a combined population of 28,500.

Regional Approach:

Generally follows national program.

Primary Measures of Progress:

% assessments drafted and submitted to tribes for review.

% TEAs drafted and presented to tribes.

% TEAs signed.

Strategies	Tools	Performance Measures	Region 4 Programs
Complete assessments of tribal capacity for environmental protection.	-Site Visits -Quarterly grant reports -Past consultant and tribal reports -Interviews with regional and tribal employees	Assessment for each tribe describing the past and current status of tribal capacity for environmental protection.	Indian Program Coordinator / RA
Complete Tribal/EPA Environmental Agreements (TEAs) with all tribes	-draft TEA guidance -regional strategic plan -negotiations with Tribes	TEA will consist of the following: (1) statement of tribal priorities (2) summary of future actions to address priorities (3) assessment [described above] (4) long term goals of the Tribe.	Indian Program Coordinator

Chapter Three CROSS-GOAL STRATEGIES AND ISSUES

Many of EPA's efforts –strengthening our partnerships with states and tribes, improving the quality and availability of the environmental and health information on which we base our decisions, and improving our management systems to achieve better results–contribute to our progress toward all five of our goals. This cross-Region, cross-media work includes both support functions, such as administrative and financial management or legal services, and the strategies or means we employ to help accomplish our objectives, such as science and research or information management.

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

This chapter will also highlight four cross-goal issues which are especially important to Region 4. These issues, including growth, mercury, power plants, and agriculture were mentioned in Chapter 1, Region Overview as well as Chapter 5, State and Tribal Issues. The discussion in this chapter will go into more detail about why these issues are important and how we are addressing them now and hope to address them in the future. We see this discussion as important as we look toward a more strategic allocation of resources in the future.

Partnerships

State Partnerships

In 1995, the states and EPA re-grounded their relationship by agreeing to a series of principles that would guide their work together. For the past 7 years, the principles articulated in the *Joint Commitment to Reform Oversight and Create the National Environmental Performance Partnership System* also known as the "May 17th Agreement," have guided the state-EPA

Key Principles	
National Environmental Performance Partnership System	
May 17, 1995 Joint Commitment	
•	Continuous Improvement.
•	Environment Protected for All.
•	Progress Reported Using Environmental Indicators.
•	Allowing Flexible Approaches while Maintaining Level Playing Field
•	Joint Planning and Priority Setting to Address Highest Needs.
•	Facilitate and Encourage Public Involvement.
•	Reforming Oversight to Concentrate on Weaknesses.

partnership. These principles call upon the states and EPA to set priorities jointly; develop performance agreements to define their roles, responsibilities, and accountability; encourage innovative environmental and human health protection strategies; agree upon performance measures; and jointly evaluate the results achieved.

The results of a joint system evaluation conducted by state environmental commissioners and senior EPA managers in 2002 confirm that Performance Partnerships are based on sound principles that guide a flexible process that adapts environmental goals to local conditions in a way that builds trust between states and EPA. Performance Partnerships have improved communications between EPA and state environmental agencies by fostering more frequent discussions between state commissioners and regional administrators and by beginning to break down organizational and media program barriers in both EPA regional offices and state agencies. Increased joint planning and priority-setting have focused state and EPA regional office efforts on achieving results, increased work sharing allowed more flexibility in funding and reduced low-value oversight and reporting. Performance Partnerships can allow State Commissioners to take full advantage of various cost savings to protect the environment.

Components of EPA's Partnership Strategy. The 2002 joint evaluation identified some remaining challenges facing States and EPA as they work together over the next 5 years to realize the full benefits of Performance Partnerships. EPA's partnership strategy comprises five components. They are:

- (1) Increase our emphasis on environmental results in state-EPA management of environmental protection programs.
- (2) Work with our state partners to establish a range of agreements that advance an environmental results orientation to priority-setting and planning tailored to the needs of individual states.
- (3) Improve the state-EPA working relationship and clarify our roles and responsibilities to make more effective use of limited resources.
- (4) Establish more systematic ways to reflect state priorities in EPA planning and budgeting processes and ensure that states understand and know when to contribute to these processes.
- (5) Promote innovative, cross-media approaches to environmental problem solving.

Region 4's Approach to the Partnership Strategy. Region 4 has not, in the past, had a clearly articulated, comprehensive approach to accomplishing the goal of strengthening our partnerships with the states. Region 4 will move to initiate development of a comprehensive approach to the task of strengthening our partnership relationship with the states. That approach will identify specific actions and activities that will serve to support the five components included in the national strategy listed above.

Region 4's comprehensive approach could include some of the following components:

1. Develop for interested states in Region 4, a minimum set of Continuing Environmental Program (CEP) grants that could be combined into one Performance Partnership Grant (PPG). As many as seventeen (17) different program grants can be included in PPGs, but the minimum set that will be included in PPGs issued by Region 4 to our eight states will be for grants made under the authority of the following: (1) RCRA Section 3011, (2) Clean Air Act Section 105, (3) Clean Water Act Section 106, and (4) Clean Water Act Section 319. As a first step towards strengthening our state partnerships, this will serve the purpose of establishing for all states the minimum administrative framework necessary to take advantage of the NEPPS concept. In itself, this step need not have any discernible impact on the budget process in state agencies. Should states wish to do so, the funds provided by each of these programs could be redistributed within the state budgetary system to reflect their programmatic origins, although it is difficult to see what positive benefit would result from that action on the part of any given state.

For Region 4, several benefits would result from this action:

- Administrative efficiency. The most obvious benefit to the Region would be that the number of grants to be prepared, processed, and issued would be reduced from 32 to 8. While the current procedures in place for processing PPGs in Region 4 does not take full advantage of the potential administrative benefits of PPGs, part of this process would entail a review and evaluation of that process by which improvements could be identified and implemented.
- Minor changes to the approved budget are simplified. In those states that currently have PPGs, minor changes to approved state budgets can be made by an exchange of correspondence without the requirement for a formal grant amendment.
- Region 4 gains greater leverage in obtaining compliance with grant conditions and program requirements. PPGs are a very effective vehicle for incorporating the full range of agreements, commitments, and requirements agreed to in state work plans (or PPAs, where they exist) into one comprehensive grant condition. By referencing such agreements in the PPG grant conditions, they can be incorporated into the accountability system by which the Region evaluates state performance.
- In those cases where the states and Region 4 wish to embark on formal efforts at joint planning (see below), the PPG is the most effective tool by which innovative, cross-med approaches resulting from that process can be formalized and implemented.

2. Region 4 will invite all eight states in the Region to participate in an annual, on-going systematic planning approach by which state priorities and concerns can be effectively incorporated into EPA's long-term budgeting process. The first step towards this type of system has already been partially addressed in that each state has been asked to identify a

planning point-of-contact for budget and strategic planning purposes. In turn Region 4 will establish the Planning and Analysis Branch as the red-proced point of contact for this activity. The key to this effort is to make clear to the states that this will impact long-term budget and planning processes, not the year-to-year negotiations that accompany annual work plans or PPGs. For example, should this process be initiated with any state during FY 2003, it would be as input to the FY 2005 budget and planning cycle. This is the only way by which such state planning efforts can be effectively taken into account once EPA budget priorities have been set, and work plan negotiations begin.

This effort would not replace the annual, near-term negotiations between EPA program managers and their state counterparts, as reflected in either programmatic work plans or PPAs (although a PPA could easily be a product of the process, should EPA and the state agree on that outcome). Resulting planning agreements would instead serve as guidance, context, and/or a framework for the more specific, program-oriented work plan negotiations.

Region 4 recognizes the financial crises faced by many, if not most, of the eight states in the Region. For this purpose, Region 4 is not proposing to require states to actively participate in such long-term planning if, in the state's judgment, they do not have the resources necessary to support such participation. Region 4 believes, however, that long-term joint planning efforts will, in the long run, result in agreements that will improve the efficiency of state operations and EPA/state relationships. In addition, agreements that may arise from such joint planning efforts are the most effective means by which innovative, novel approaches to environmental protection activities can be established. These innovative and novel approaches and agreements can be developed with the need for greater efficiency in state operations firmly in mind, thereby providing potential assistance to the states in tight budgetary times.

3. Region 4 will create a clear, detailed statement of the duties, responsibilities, and expectations for PPG project officers (PO's) assigned to the interested states. There is no such statement or understanding of PPG PO duties, responsibilities, and expectations at present.

Duties and responsibilities for these PO's should include managing the long-term planning process in those states that choose to participate; evaluate state agreements, work plans, etc., for consistency with national and regional priorities, goals, and objectives; insure that all pertinent agreements, work plans, and grant conditions are both included in the PPG and complied with by the grantees; and coordinate, track, and report on cross-programmatic components of state/Region 4 agreements and work plans.

4. Region 4's Office of Policy and Management (OPM) will assume responsibility for comprehensive management, coordination, and evaluation of the overall long-term planning process. OPM is the one place in the Region where all assistance agreements between Region 4 and the states are directed for processing and approval. Therefore, OPM is the organizational element where responsibility for the overall planning process most logically should reside. At the front end, long-term comprehensive planning with the states will be the responsibility of the Planning and Analysis Branch. The PPG Project Officers will likewise be

housed in OPM, and be the focus of both the implementation of the system, and the evaluation and accountability portion of the system (i.e., evaluation of PPAs, work plans, grant conditions, and performance measures for consistency with regional and national strategic plans).

Conclusion. Region 4 will institute a program that will serve to fundamentally strengthen and institutionalize a partnership relationship with the eight states. This program could include:

- Converting a minimum set of CEP grants into PPGs for all interested states.
- Establish a voluntary long-term planning relationship with those states that wish to participate in such a program.
- Create PPG Project Officer duties that are clearly defined and which support the overall goals of the Partnership Cross-Program strategy contained in the national strategic plan.
- Establish internal procedures by which OPM undertakes the responsibility to manage, coordinate, and evaluate assistance agreements for consistency with state agreements, priorities, and regional strategic goals and objectives.

Tribal Partnerships

EPA's 1984 Indian Policy recognized the uniqueness of the government-to-government relationship between EPA and the federally recognized tribes in the Southeast. The challenges inherent in the cultural, jurisdictional, physical landscapes make the tribes different from our State partners. Among other things, this policy suggested many actions, including support as the tribes move toward the self-governance with the capacity built to assure its sustainability. This policy has yet to be fully implemented however the tribes and the regional office will continue to work together to:

- complete environmental baseline assessments
- identify priorities through negotiation with tribal officials
- build capacity to implement environmental programs
- achieve adequate infrastructure within tribal homelands

To date, Region 4 has taken a program specific approach to environmental assessment and capacity building. This has been successful, and resulted in a generally positive program-specific relationship with the tribes. However, we can still see a number of data gaps which are better filled by moving the assessment mandate to a Region-wide approach for a bigger, somewhat more detailed picture of conditions on tribal lands across all programs. This assessment will be completed by the end of FY03. To facilitate this, Region 4 has appointed a Tribal Programs Coordinator reporting directly to the Regional Administrator. This Coordinator will be responsible for working with the tribes and program offices to fill the gaps in our assessment work, act as the regional representative in national discussions, lead negotiator for Tribal Environmental Agreements (TEAs), and provide a more accessible communications link

between the tribes and the Region Administrator's Office

While the assessment is being completed we will be working with the program offices and tribal leadership to create TEAs which document specific actions, environmental goals and work commitments for both EPA and each tribe. At this time, our goal will be to complete at least one TEA in FY04. These will be structured to take advantage of the same efficiencies created through the PPAs/PPGs with our State partners.

The benefits of this approach include:

- increased tribal capacity-building
- greater implementation of environmental programs within tribal homelands
- expanded education for EPA employees regarding tribal issues
- increased technical assistance and training for tribal environmental managers
- improved coordination with tribes to achieve goals and objectives identified in the Tribal/EPA Environmental Agreements

Additional Partnering Initiatives in Region 4

EPA Region 4 uses partnerships with other federal agencies, local governments, community organizations, environmental groups, the academic community, and with industry and businesses to enhance its ability to improve human health and environmental protection across the Southeast region. The Region contributes funding, scientific expertise, technical support, and/or data to external groups engaging in environmental protection, conservation, sustainable development, and related health activities. These partnerships enable the Region to accomplish more with less -- to leverage resources, share vital information and expertise, realize more environmental results, increase cost effectiveness, and reduce duplicative expenditures and piecemeal efforts. Several conditions in the Region make partnerships with federal and local government agencies; governmental, environmental, community, and citizen groups; industry and academia; and the not-for-profit and private sectors even more important in the Southeast to meeting the Agency's mission effectively. These conditions include:

1. Decreasing state budgets resulting in limited state funds and resources to support environmental protection and conservation across the Southeast;
2. Rapid growth and development across the Region with formerly rural areas and green space being rapidly swallowed up;
3. Abundance of valuable natural resources and coastline in danger of being lost or destroyed;
4. Higher percent of poverty in the Southeast than in the rest of the country and increase of unemployment in the Region; and

5. Increasing priorities in the Southeast and unfunded mandates that require collaboration to leverage sufficient resources.

Partnering with other federal agencies having responsibilities for different aspects of environmental protection, such as conservation, reuse and revitalization, economic development, and health care, increases Region 4's ability to carry out the Agency's mission. To maximize the effectiveness of partnerships with other federal agencies in the Southeast, EPA Region 4 is a member of the Southeast Natural Resources Leaders Group (SENRLG). This group is a collaboration of regional Federal executives who lead agencies with natural resource conservation as part of their mission. SENRLG is committed to the common purpose of fulfilling agency mandates in ways that promote (1) conservation and restoration of important natural resources; (2) wise management and sound stewardship of natural, biological and cultural resources; and (3) ecologically sustainable development. The regional directors of these agencies are committed to incorporating interagency collaboration into every aspect of their operations, so they meet periodically to assess the effectiveness of these efforts and to seek new opportunities to partner to improve the environment and conserve and protect the wealth of natural resources in the Region. The organization promotes collaboration at regional and field levels thereby creating a more "seamless government" capable of providing citizens better service and protecting the environment more effectively. Through its network, SENRLG provides support and strength for partnership efforts among agencies' staffs and a forum to identify and foster actions to promote natural resource conservation. SENRLG has subcommittees working on specific areas and works on priority projects during the year as well as fostering interagency collaboration on respective agency mandates and routine operations. SENRLG agencies are working on protection of Everglades, the Mississippi Delta to the Gulf of Mexico, and other areas of the Southeast as well as issues of key importance to environmental protection in the Region, such as sustainable growth and development, endangered species and forest protection, transportation and regional air quality, and protection of coastal areas. SENRLG enhances the ability of members to:

1. Identify key issues for Federal natural resource management in the Southeast
2. Support, encourage and undertake cooperative resource management and research
3. Promote partnership opportunities that enhance agency missions at the regional level
4. Better use limited Federal resources
5. Improve communications with, and support from, the public and Congress
6. Educate the public on the importance of our rich natural and cultural heritage

Under each Agency goal (Clean Air, Clean and Safe Water, Land Preservation and Restoration, Communities and Ecosystems, and Compliance and Enforcement Stewardship), partnerships move the Region closer to meeting specific objectives for improving human health and the environment in the Southeast. Under the Clean Air Goal, the Region is actively engaged with 22 areas in Georgia, Mississippi, North Carolina, South Carolina and Tennessee that are developing Early Action Plans to achieve cleaner air sooner. The Region is also promoting the Agency's Energy Star program to help businesses and individuals in the Southeast protect the environment and reduce energy use through greater efficiency. In the eight Southeastern states,

the Region now has 735 Energy Star partners. Region 4 has one partnership under the Agency's Climate Leaders program. Climate Leaders is a voluntary EPA industry-government partnership that encourages companies to develop long-term comprehensive climate change strategies. By reporting inventory data to EPA, partners create a lasting record of their accomplishments. Currently in the Southeast, Interface Inc. in Atlanta, Georgia is a Climate Leader. Interface, Inc. is a resource-intensive company whose largest divisions (commercial carpet and fabrics) are petroleum dependent. With sales in more than 100 countries and manufacturing facilities at 26 sites on four continents, the company impacts global commerce and ecology. Participation in EPA's Climate Leaders is helping Interface to understand, quantify and eventually lessen its impact on climate change. In the area of air toxics, EPA Region 4 and the Agency for Toxic Substances Disease Registry (ATSDR) partner to fund the Pediatric Environmental Health Specialty Unit at Emory University in Atlanta. The Region also collaborates with ATSDR on air toxics training. In addition, Region 4 has air toxics partnerships with community-level projects in Louisville, Chattanooga, Mobile, Pensacola and the Tri-State area to reduce toxics in these communities through education and partnerships with industry. The Region works with the Department of Transportation (DOT) to ensure effective transportation planning. The Region is also working with DOT on the use of Congestion Mitigation and Air Quality Improvement Program (CMAQ) funds, which are available to communities to improve the quality of the natural environment by reducing transportation-related pollution. Region 4 has partnered with regional airports to promote a voluntary program to reduce air pollution by recognizing superior environmental performance. Partnerships with schools and public transit agencies in the Southeast have resulted in retrofits and increased use of alternative fuels. The Region is working with Headquarters and numerous stakeholders in the Charlotte, NC, area to develop a new way of air quality planning that focuses on developing strategies that address multiple pollutants instead of the current pollutant by pollutant approach.

To promote clean and safe water (Goal 2) in the Southeast, Region 4 has entered into partnerships in several different areas. Several major multi-media partnerships were created initially to address water resources. One such partnership involving EPA, other federal agencies, state and local agencies, the private sector, and community groups is the South Florida Initiative. The South Florida ecosystem is the principal nursery area for the largest commercial and sport fisheries in Florida, home of the largest wilderness east of the Mississippi River, the location of the only living coral reef adjacent to this country, the most significant breeding ground for wading birds on this continent, the predominant producer of the nation's winter vegetables, home to two Native American nations, and a major tourist region. The purpose of the South Florida Initiative is to protect this area which has been endangered by the expanding human population (40% of Florida's total population which is larger than 32 states) and ensure the long-term sustainability of the region's varied natural resources while providing for the coexistence of extensive agricultural operations and a continually expanding population. The Initiative has several different aspects, including an urban initiative to support the development of a regional decision support system. This initiative brings together 11 federal agencies, several state departments, tribal governments, local governments to focus on these issues.

EPA Region 4 joined together with local governments and communities to support

restoration of local wetlands and watersheds. These projects include the Emerson Point Five Star Restoration Project (FL), the Natural Channel Restoration on the Soque River (GA), Upper Cullasga Watershed Improvement (NC), Etowah Basin Restoration (GA), Chattahoochee River National Recreation Area (GA), Twelve Mile Watershed (SC), White Oak River Basin (NC), and the Upper Cahaba River Watershed (AL). A major effort in Region 4 is the protection of the Gulf of Mexico. Region 4 partners with EPA Region 6, the 5 states adjacent to the Gulf in Regions 4 and 6, several federal agencies (DoD, HHS, DOI/MMS, DOI/FWS, USGS), local governments, and citizens to ensure future protection of this important estuary. Under the National Estuary Programs (NEP), Region 4 joins other federal agencies, state and local agencies, and community groups in designing a plan to conserve the bounty of this endangered estuary.

Region 4 partners with the National Rural Water Association (utility membership association) and the American Water Works Association (non-profit organization of water supply professionals focused on improving the quality of drinking water) to provide technical assistance to local drinking water providers to safeguard public water supplies. Region 4's Water Management Division also partners with the Federal National Invasive Species Council to reduce the rate of intrusion of non-indigenous, invasive aquatic species to waters in the Southeast.

Under Goal 2, the Region supports international partnerships with the U.S. Agency for International Development (USAID) by assisting the seven Central American countries reduce pollution from domestic dischargers through the implementation of a regional wastewater model regulation for use in Central America. EPA Region 4 is also working in partnership with USAID to strengthen wastewater utilities in key coastal communities in Central America. This partnership benefits Central America, the United States, and the World by helping keep valuable water resources cleaner.

To preserve and restore lands (Goal 3) in the Southeast, EPA Region 4 also works with other federal and local agencies in addition to partnerships with the States and Tribes. One major mandate currently being enhanced by partnerships is homeland security. Region 4 emergency response staff are working with these partners to improve response readiness across the Southeast through coordinated drills and exercises along with technical assistance to improve response capabilities across the region.

In the area of solid waste management, Region 4 partners with state, federal, and private sector organizations under the WasteWise program to design solid waste reduction programs tailored to the specific partner's needs. Region 4 provides technical assistance and outreach to encourage adoption of effective waste reduction programs. The Region would like to provide on-site assistance to its partners for facility assessments and improved measurement reporting. Region 4 has been a leader in developing partnerships with the private sector in specific areas to improve recycling. Currently, Region 4 is involved with the Carpet Recycling Initiative, which supports post-consumer development of carpet reuse and recycling infrastructure. Region 4 has also been instrumental in bringing attention to the Tire Recycling Initiative, which is now a national effort also. Region 4 has encouraged partnerships in the southeast to improve deconstruction waste reduction and reuse. The Region has provided training to federal agencies

on design for deconstruction to make buildings easier to recycle and manage. EPA Region 4 is working with the University of Florida to provide mentoring to individual military installations in the Southeast. The Region is a co-sponsor of the University of Florida's Center for Construction and Environment's Deconstruction and Materials Reuse International Conference.

EPA Region 4's Superfund Program collaborates with ATSDR and Emory University on Children's Health issues of specific National Priorities List and time-critical removal sites in the Southeast. This partnership provides health support where children are determined to bear have been at significant health risk from exposure to hazardous site conditions.

Under Goal 4 (Ecosystems and communities), Region 4 continues to partner with other federal agencies, states and tribes, city planners, environmental groups, non-governmental organizations (NGOs), regulated industry, colleges/universities, and concerned citizens to protect ecosystems under a community-based environmental protection approach. The Region supports about 30 of these place-based initiatives throughout the Southeast focusing on improving human interaction in the ecosystems.

Another area under Goal 4 where the Region fosters partnerships to ensure conservation and economic development is the smart growth and sustainable development area. Region 4 partners with local planning organizations to provide technical assistance and support in using the Region 4 GeoBook (a computer application on the Southeastern Ecological Framework) to develop local green space protection programs that will be integrated with the regional green infrastructure. The Southeastern Ecological Framework (SEF) is a GIS based model of large-scale ecosystem connectivity in the Southeast designed to help integrate landscape protection at all levels with various state, federal, regional, and local partners.

In the Southeast, rapid growth and development along with loss of agriculture are becoming critical issues. Air, water, and land issues related to rapid growth are priorities not only at state and local levels but also at the federal level. Region 4 staff work with many partners to develop policies, training tools, resource options, and other information to support those involved in planning and those interested in smart growth. The Region responds to a number of requests from partner agencies (like DoD and the Tennessee Valley Authority) for assistance on specific community problems related to growth. Regional organizations, such as the Southeast Watershed Forum's Quality Communities Program, partner with EPA Region 4 and other federal agencies to help train local officials and build community skills to solve growth-related issues. Region 4 staff work with regional tool developers and researchers, including the Region's Environmental Finance Centers at two universities in the Southeast, to ensure the creation of innovative, useful smart growth and sustainable development resources appropriate for local communities in the Southeast. These partnerships bring order and focus to this rapidly growing problem in the Region by seeking innovative ways to help communities balance environmental and social needs while experiencing and benefitting from growth.

In the area of pesticide use and health under Goal 4, EPA works with partners through grant programs to involve colleges/universities and other groups in environmental protection.

Under the Pesticides Environmental Stewardship Program (PESP), Region 4 awards grants under its Regional Initiative Grants for pollution prevention projects that complement the Region's ongoing efforts to regulate pesticide products and protect human health and the environment. Under the Urban Initiative grants, funds are used on projects to help prevent pesticide misuse in urban settings, including unregistered illegal imported pesticides used in homes. This program grew out of past problems in Mississippi and Tennessee. The primary goal of Region 4's Strategic Agricultural Initiative Project is to assist in Food Quality Protection Act (FQPA) implementation through extensive and effective communication and partnership effort with regional pesticide user, teacher, and researcher communities.

Compliance partnerships under Goal 5 increase compliance among the regulated community. Region 4 fosters effective partnerships with trade associations, industry, and states to develop compliance manuals, conduct workshops, and target sectors for compliance assistance visits. Some sectors of importance in the Southeast are printing, textile, and carpet, where partnerships have been effective in increasing compliance.

Under the Compliance and Enforcement goal, Pollution Prevention partnerships have been especially productive in Region 4. Partnerships with industry, business, schools, and other federal agencies result in progress in pollution prevention, air quality and energy conservation and increased protection from adverse effects or misuse of pesticides. EPA Region 4 and the Department of Defense (DoD) created the Pollution Prevention (P2) Partnership to share the P2 experiences and expertise of military installations across state borders. This partnership elevates the visibility and importance of P2 achievements at the base level by expanding it to a regional effort. This partnership is encouraging southeastern colleges/universities to develop project/program proposals to tackle issues in one or more of the DoD "Regional Priorities" through DoD/EPA/State P2 Partnership Small Grants Program. In Region 4, the University of Tennessee's Center for Clean Products and Clean Technologies participated in a P2 Design for a Cleaner Environment (DfE) partnership. The Center conducted a Life-Cycle Assessment (LCA) and streamlined Cleaner Technologies Substitutes Assessment (CTSA), in voluntary partnership with the Electronic Industries Alliance (EIA), individual original equipment and component manufacturers, EPA risk assessment experts, and other interested parties. The project focused on display technologies that can perform standard applications on 15-inch to 17-inch desktop computer monitors. This information can be used to identify opportunities for product improvement that will reduce potential adverse environmental impacts and costs. It will also help the U.S. electronics industry continue to meet the demands of extended product responsibility that are growing in the global marketplace.

EPA also partners with the U.S. Agency for International Development (USAID) to assist other governments on many areas of environmental protection. Under an existing agreement with USAID, EPA is providing assistance to Central American governments on wastewater treatment, solid waste management and pesticide management. Region 4 has the lead on the wastewater treatment and solid waste management issues. Region 4 collaborative efforts include:

1. Oversee construction of wastewater treatment pilot in Livingston, Guatemala
2. Oversee construction of wastewater treatment pilot in La Unión, El Salvador
3. Coordinate Region/Agency input for development of regional wastewater regulation model.
5. Coordinate Region/Agency input in the developing of harmonized solid waste regulations for Central American countries.

Information

Environmental Information Strategy

EPA Region 4 believes that effective information management is vital to the success of EPA's mission, and contributes to the achievement of all Agency strategic goals. We will continue to support national activities and strategic information initiatives that strengthen these goals. EPA R4 will effectively coordinate all activities within the Region related to information resources and technology management including R4 State information exchange and data stewardship. We will continue to collaborate with the HQ Office of Environmental Information (OEI), R4 States & Tribes, and the public to promote data integration, improved public access to environmental information, burden reduction on the reporting community, and improved data quality which is increasingly important to solve environmental problems and address challenges.

The foundation for any successful information management program is to provide the right information, at the right time, in the right format, to the right users. This means making quality environmental and management information available to decision makers for developing environmental policies and priorities. It means making environmental data publicly accessible to support individual and community involvement in decisions that may affect environmental quality. It means building the necessary infrastructure to provide secure information, reliable data, efficient and timely access, and analytical information tools.

EPA R4 employees rely on the Agency's information management systems, central information services and special information resources to achieve the Agency's mission. We will continue to ensure that information technology and data initiatives directly support EPA's mission, and are fully coordinated with efforts of our federal, state, tribal and local agency partners to avoid duplication, reduce burden and increase effectiveness.

Region 4's crosscutting information strategy will focus on the following three areas in support of EPA national initiatives and priorities:

Analytical Capacity - provide access to new analytical tools that facilitate data interpretation and enable users to respond to environmental problems, set priorities, make sound decisions, manage for results, and measure performance;

Governance - participate in an Agency-wide approach to managing information,

including administrative and programmatic systems, and data and investment priorities;

Excellence in Information Service Delivery - work collaboratively with states, tribes, other federal agencies, and key stakeholders to improve the efficiency and utility of environmental information.

Analytical Capacity

Environmental information is most meaningful when users are able to examine all of the data about a particular situation, location, or source at once. R4 will continue to develop and provide analytical tools to support decision-making, results-based management, and the public's right to know. We will continue to work on bringing coordinated and useful information directly to the desktop through GIS initiatives that support regional issues such as haze, state-level issues such as watershed protection, and local and community issues such as ambient air quality protection within a particular metropolitan area.

Improved capacity to integrate and analyze environmental data will support cross-media solutions to complex environmental and human-health problems. Better analytical capabilities will help managers to assess existing baseline conditions, isolate data gaps, track the implementation of specific solutions, and measure the results achieved. Better analytical tools will also help us fulfill our regional responsibilities to homeland security by providing a clear picture of the spatial coordinates, materials, and corporate ownership of regulated facilities.

Governance

R4 will continue to participate in the Agency-wide approach to information management that makes key information, technology, and funding investments to improve the efficiency and effectiveness of services and operations. EPA R4's information governance strategy will ensure efficient, coordinated management of information assets across all programs.

R4 will increase the operational efficiency of all business processes through the use of information technology and work to tie information management decisions to budget priorities. We will continue to ensure efficient, coordinated management of information assets across all EPA programs through continued meetings of the Regional Information Management Steering Committee to provide consistency in our approach to information management and to help strengthen information integration and Regional database management activities.

Excellence in Information Service Delivery

R4 will continue to support national initiatives and strategies in pursuing excellence in information service delivery with a focus on the three major themes of streamlining management processes, linking data partners, and improving information access. We will continually work to adapt to emerging technologies and web services to become more productive, effective, and

proactive in service delivery.

- *Streamlining management processes* - We will participate in supporting new administrative systems for financial, personnel, and program management that integrate data, eliminate database fragmentation and limit information access. We will work to develop and support groupware applications that improve information flow and encourage team member involvement in application development. We will continue to develop automated processes within R4 that improve and enhance service delivery.
- *Linking data partners* - We will continue to collaborate and network with our HQ, state and tribal partners to exchange policy, research, management and performance information among these organizations and environmental programs. We will continue to meet with our State partners on a regular basis to better coordinate data integration initiatives.
- *Improving information access* - We will continue to enhance opportunities for users to access data from multiple sources and will continue to develop data and processes that improve information access both within and outside EPA. We will continue to organize and assemble geographic information systems that can provide a holistic environmental picture on geographic scales both large and small so that it can be placed in usable formats at the fingertips of EPA Staff and the public.

By implementing this information strategy, EPA R4 will be in a better position to keep pace with the rapid advances in information technology and meet the growing demand for reliable, quality environmental information.

Innovation

Innovations Cross-Programmatic Strategy

INTRODUCTION

In 2002, EPA released a strategy to strengthen environmental protection through the power and promise of innovation. *Innovating for Better Environmental Results: A Strategy To Guide the Next Generation of Environmental Protection* is designed to drive innovation in environmental programs.

The Innovation Strategy is based upon a vision for what our environmental protection should be. That vision is for a system that puts more emphasis on results and less on process, where the focus is on environmental responsibility, not just pollution control, and where multi-faceted approaches address problems in a comprehensive rather than piecemeal fashion. The system envisioned would rely more on incentives to motivate better environmental performance and on partnerships that help to leverage ideas and resources for greater environmental gain.

Developed in consultation with States, the Innovation Strategy includes four interconnected elements that will enable progress towards this long-term vision, and in the shorter term, progress under EPA's Strategic Plan. The first element is designed to strengthen our partnership with States and Tribes. The Innovation Strategy lays out a set of actions designed to enable State and Tribal innovation. These include finding ways to improve the National Environmental Performance Partnership System and the Joint State/EPA Agreement to Pursue Regulatory Innovations, two policy tools that provide a means for developing innovation initiatives. Another priority is providing the States with more meaningful input in EPA's planning and budgeting processes, where important decisions affecting innovation are made. As outlined in the partnership chapter in Region 4's strategic plan, Region 4 will take actions to enhance the partnership aspects of our relationships with the eight states in the Region, and use those relationships to foster and encourage innovations in state regulatory activities.

The second element of the Innovation Strategy focuses on using innovation to solve a set of priority environmental problems - greenhouse gases, smog, water quality and water infrastructure. While there is a need for innovation in solving all environmental problems, these are especially important because they are national in scope, pose serious risks, and are not being adequately addressed with the tools and approaches that exist today.

The needs just described highlight the importance of continuously developing new tools and approaches that can expand and enhance environmental problem-solving. And indeed, that is the third element of the Innovation Strategy. It focuses EPA on a set of tools that have already proven effective on a limited scale and that can be widely applied in many environmental programs. They include the information tools that can improve our understanding of problems and solutions, Environmental Management Systems (EMSs) that can foster a more comprehensive approach to environmental protection, incentives that can motivate better

environmental performance, environmental technologies that can improve results and lower costs, and performance measures that show how well innovations are working.

Finally, the Innovation Strategy focuses on what may be the most important element of all - creating a culture and set of organizational systems that foster innovation throughout the organization. The goal is to have every individual within our work force see his or her job more broadly - as an environmental problem-solver, a partner, a facilitator, and a leader, not solely a program implementer.

Region 4 supports the goals, objectives, and philosophy of the national Innovations Strategy. The Region will continue to provide active participation in and support for innovations activities, and has committed to focusing that support in a number of specific areas of regional significance. These focus areas were identified in a memorandum from the Regional Administrator to Tom Gibson, Associate Administrator for Policy, Economics and Innovation (at that time). They are:

- Expanded implementation of the Environmental Results Program (ERP) model in state regulatory program applications.

Region 4 has already provided funding support for ERP pilots in Florida for the automobile repair and salvage sectors, and we believe that Florida Department of Environmental Protection (FDEP) would be receptive to expansion of those pilots, both in scope within those sectors and in other appropriate sectors. In addition, we have begun discussions with the Tennessee Department of Environmental Control (TDEC) regarding the use of the ERP model in their Underground Storage Tank (UST) program, and we hope to be able to provide funding support, in conjunction with OPEI, and OECA, for that project. We believe that the success of these examples can be used to expand the ERP model into other applications and other states.

Foster more widespread use and application of geospatial analytical tools, applications, and methods in order to facilitate cross-program and multi-media solutions to environmental problems.

Three ongoing efforts in Region 4 exemplify the types of geospatial tools and applications that we believe can be more widely used by states, the public, and other Federal agencies. They are the Southeastern Environmental Framework (SEF), the Mississippi Digital Earth Model (MDEM), and the Region 4 Geobook. SEF has been reviewed by the Science Advisory Board (SAB) and has their endorsement as a national model for a geospatial tool that can be used to identify high-value ecological resources and habitats. We in Region 4 would like to take the lead in expanding use of this model to a national level. MDEM is a project designed to develop a desktop tool utilizing a standard set of data layers of a high degree of resolution that may be used by a wide array of regulatory program staff. Geobook is a user-friendly, multi-media data visualization tool that has potential for much more widespread use by the public, by EPA staff, and by state regulatory staff, and part of the regional innovations agenda will be to foster expanded availability and use of Geobook.

The integration of spatial tools with the everyday work that EPA does in Region 4 enhances our ability to understand multimedia issues rather than the conventional stove-pipe perspective that has been prevalent in the past. SESD in Athens is developing capabilities to allow their enormous sample database to be accessible and linked to USGS quad maps and 1 meter resolution digital photography. The various divisions have ongoing projects that will provide spatial information available for the LAN desktop user with such things as important wetlands, air monitoring, 303d/305b designations, and a variety of others. The integration of the data on a local server will provide capabilities for any person writing permits, preparing for inspection, or reviewing enforcement activities to understand the spatial setting that surrounds the facility in question.

Integrated planning for environmental enhancement by local governments and partnerships.

The Region 4 innovations agenda will include projects that assist local and regional (i.e., multi-county) government agencies in the task of integrating environmental concerns and issues into their planning activities. We will build upon the lessons learned during our participation in the Atlantic Steel XL project, which allowed us to incorporate features into an urban development project that will reduce vehicle miles traveled in the Atlanta area and qualify the project in its entirety as a Transportation Control Measure (TCM). We have also been involved in efforts to foster integrated environmental planning in the Charlotte/Mecklenburg County area in North Carolina and we anticipate that this effort would be the focus of our efforts in this target of opportunity for the foreseeable future. Finally, we have been actively engaged with the Conference of Southern County Associations (CSCA), as a means of providing technical assistance to local and county governments regarding environmental and regulatory issues, and we would anticipate expanding that effort to assist them in integrated environmental planning.

Expanded application of the plant wide applicability limit (PAL) concept for industrial facilities with air emissions.

Region 4 has had considerable success with the use of PALs at two automobile manufacturing plants, one in South Carolina and one in Tennessee. As part of our Regional innovations agenda we will investigate the potential for use of PALs at other automobile plants in the Region (more automobiles are assembled in Region 4 than in any other region, making this one of the primary industrial sectors in Region 4). In addition, we believe the PAL concept has broader applicability, and we will likewise investigate the potential for PAL application in other industrial sectors.

ACTIVITIES IDENTIFIED BY REGIONAL GOAL TEAMS WHICH SUPPORT

Innovations Strategy and Regional Innovations Commitments.

In the course of developing the various chapters of this strategic plan related to the new 5-goal structure, a number of activities were identified which will support the goals and objectives of the national innovations strategy, the Regional innovations commitments, or both. Innovations activities associated with Goal 5 are self-explanatory, and are not repeated here. Those associated with Goals 1-4 are summarized below, grouped by the goal under which they were proposed.

Goal 1, Objective 1, Sub-Objective 1.

Greener Airports. This activity supports the national innovations strategy by developing an innovative set of tools and approaches for a sector that has the potential to impact one of the priority environmental issues (clean air).

PAL development and innovative Title V permitting techniques. This activity supports the national innovations strategy by developing an innovative set of tools and approaches for air permitting (plant-wide applicability limits, or PALs). This was also one of the Regional focus areas identified by Region 4.

Goal 1, Objective 1, Sub-Objective 2.

Reduce emissions from diesel vehicles in urban areas. This activity supports the national innovations strategy by developing an innovative set of tools and approaches for an activity that has the potential to impact one of the priority environmental issues (clean air). It can be used to target compliance technical assistance activities to appropriate sectors (schools, transit agencies, fleet operations, etc.).

Early implementation of ultra-low sulfur diesel (ULSD). This activity supports the national innovations strategy by developing an innovative set of tools and approaches for an activity that has the potential to impact one of the priority environmental issues (clean air). It also supports the concept of strengthening partnerships with state partners, as the active participation of state partners will be crucial for successful implementation.

Goal 1, Objective 1, Sub-Objective 4.

In building state, local, and tribal capacity for activities related to air toxics, the program comments reflect the need to include geospatial tools in the capacity-building process. Expanded use of such tools in this activity supports one of the Region 4 focus areas for innovation activities.

Goal 2, Objective 2, Sub-Objective 1.

The program identifies a goal for NPDES discharge permits that provide for trading between dischargers on a watershed basis. This activity supports the national innovations strategy by developing an innovative set of tools and approaches for an activity that has the potential to impact one of the priority environmental issues (improved water quality). In addition, this market-based approach has received considerable interest from the states and from the regulated community as an innovative approach to balancing wastewater allocations among multiple dischargers in a given watershed.

The program also identifies a goal of having a percentage of POTWs that "will have a mechanism in place to support sustainable management systems". This activity supports the national innovations strategy by developing an innovative set of tools and approaches for an activity that has the potential to impact one of the priority environmental issues (improved water quality).

Goal 3, Objective 2.

Region 4 has provided grants and technical support for pilot projects in a number of sectors in Florida for the Environmental Results Program (ERP) model. This not only supports the development of innovative tools and approaches, but is also one of the Region 4 focus areas for innovative application. The Region has also provided funding and technical support for application of the ERP model to the underground storage tank (UST) program in Tennessee.

Goal 4, Objective 2, Sub-objective 1.

Region 4 has developed a number of projects that support the Regional innovation commitment to integrated planning for environmental enhancement by local governments and partnerships. These projects enable the region to integrate environmental planning, smart growth, and sustainability concerns into local government planning efforts. These projects include the following:

1. Charlotte, NC Project
2. Natural Resources Initiative, NE Mississippi
3. Neuhoff Redevelopment Project, Nashville, TN
4. Eurocopter Project, Starkville, MS
5. University of Tennessee Sustainable Agriculture Project, Western TN
6. North Carolina Million Acre Initiative RTP, NC

Goal 4, Objective 3, Sub-objective 1.

Region 4 has made a commitment to establish scientifically valid indicators for a number of ecosystem-scale parameters in partnership with a number of Federal and state agencies. This effort will support the innovations strategy by both developing new tools and approaches for this activity, but will also serve to strengthen partnerships with the states. It also will support the expanded use of geospatial tools, thereby supporting the Regional

innovations commitment to this activity.

In addition, Region 4 has made a commitment to resolve issues regarding the use of Aquifer storage and retrieval (ASR) associated with the Comprehensive Everglades Restoration Program. This supports the Innovations Strategy in a number of ways, including the development of new tools and approaches. While the concept of aquifer storage and retrieval is not a new one, the use of this practice as a tool in the preservation of a unique and valuable ecosystem, on an ecosystem scale, is highly innovative, perhaps unprecedented. Region 4 considers the Everglades Restoration Program to be one of its highest priorities, and believes that the resolution of the ASR issues will be a vital step for the overall protection and restoration of the essential hydrology of the Everglades.

REGIONAL PROCEDURAL AND INFRASTRUCTURE ISSUES.

Region 4 will take steps to establish a more clearly defined and organized approach to the management and implementation of innovations projects. In order to accomplish this objective two major actions will be taken by Region 4. They are

a. Establishment of state network of innovations contacts. Region 4 has already taken the initial steps necessary for the establishment of a state innovations network among our eight states. Each of the states has designated an innovations Point of Contact (POC), at the request of the Region Administrator. The purpose of this network will be to share information regarding EPA activities and initiatives, assist in the coordination of joint projects, and to assist in integrating state innovations priorities into the overall joint planning process.

b. Establishment of regional SOP for management of innovations projects. Region 4 will develop a written set of standard operating procedures (SOP) for the management of innovations projects undertaken by the Region, by any of the Region 4 states, as well as those EPA HQ projects in which Region 4 or any of our states will be asked to participate. These projects would include ECOS Agreement Innovations proposals, National Environmental Performance Track projects, and close-out of continuing XL projects, as well as any national innovations initiatives in which Region 4 will be asked to participate. The Regional Innovations SOP will include the following elements:

- A process for submission (from states, industry, etc.) of innovations projects and proposals to a clearly identified single point of contact within the Region. Preferably, this point of contact will report directly to the RA or DRA.
- Establishment of a procedure for management of such projects, both within Region 4 and with HQ offices. This procedure will involve the coordination of program review and input, communications with external stakeholders and applicants, and liaison with HQ (including, but not limited to, OPEI).

- A policy statement whereby the Region commits to the timely review and support of projects submitted by the states, regulated community, and other stakeholders, and identifies a senior management “champion” for the process.
- Designation of Innovations Coordinator with specific, clearly defined roles and responsibilities. The primary responsibilities of the Regional Innovations Coordinator will be to serve as the single point of contact for innovations activities within the region, to manage the coordination of those projects within the Region, and to manage communications with applicants and stakeholders.

Pollution Prevention

Region's Approach

The Region's approach to pollution prevention (P2) has formalized in an existing regional Pollution Prevention Strategy. This Regional P2 strategy was developed in response to policy considerations set forth in the Pollution Prevention Act of 1990 which states that:

"(Pollution) Should be prevented or reduced at the source whenever feasible; pollution that cannot be prevented should be recycled in an environmentally safe manner whenever feasible; pollution that cannot be prevented or recycled should be treated in an environmentally safe manner whenever feasible; and disposal or other release into the environment should be employed only as a last resort and should be treated in an environmentally safe manner."

In short, preventing pollution is preferable to trying to manage, treat or dispose waste after it is created. This has been referred to as the environmental management hierarchy which establishes a hierarchy of preferred waste management practices:

Reduce (Source Reduction, Efficiency and Conservation)

Reuse

Recycle

Treat

Dispose/Release

The Regional P2 Strategy was issued in 1997 and is still in use. It established four goals for the region. They are:

1. Reducing and eliminating pollution at the source will be the first consideration for all Region 4 media program activities.
2. Multi-media planning to anticipate and prevent pollution will be advanced and coordinated throughout Region 4.
3. Pollution prevention initiatives undertaken by state/local government, the private sector and others will be nurtured and promoted by EPA Region 4 through flexible program management and direct assistance.
4. Region 4 will serve as a role model and advocate for adoption of pollution prevention and natural resource/energy conservation measures in government operations.

Relationship to Achievement of Our Goals

The P2 goals contained in the 1997 regional P2 strategy will contribute to Region 4 contributions to many of the goals set forth in this Regional Strategic Plan. Obtaining the

reductions and environmental improvements though source reduction will lead to more permanent environmental improvements and administrative efficiencies brought about by not having to expend resources for the purpose of managing and regulating wastes to meet the media goals targets and objectives.

While P2 is better utilized as either a cross-goal strategy, tool or guiding principle, the national strategic plan set numeric strategic targets for government and business for reducing the production of wastes. The initiatives developed and supported through the activities of the many divisional and regional P2 teams contribute to meeting these targets. Many of these activities are mentioned in the media-specific goals. These activities are cross-referenced to the objectives in Goal 5 that address these numeric targets. Existing efforts like EnergyStar and WasteWise already make large contributions to these targets. The results of these activities, as well as new initiatives like Environmental Management Systems, need to be captured and evaluated for their contribution to these targets.

Activities that will be Conducted and Results to be Achieved

The region's approach to integrating P2 into media programs will be to develop numerical regional targets, based on P2 practices and activities, for the following items:

- Hazardous waste reduction (reference Goal 5, Obj. 2, Sub. 2)
- Waste Minimization Chemical reduction (Goal 3, Obj. 2, Sub. 1)
- Energy Conservation (Goal 5, Obj. 2, Sub. 2)
- Water Conservation (Goal 5, Obj. 2, Sub. 2)
- Carbon Dioxide Reduction (Goal 1, Obj. 3, Sub. 1)
- TRI generation intensity reduction (Goal 5, Obj. 2, Sub. 2)

This will give the region's divisions an opportunity to focus their current and future media regulatory, compliance assistance, technical assistance, and voluntary initiatives towards a numerical regional goal.

Utilizing this cross-goal strategy will lead to longer term benefits and improvements in environmental performance in areas in which we do not have regulatory authority but which need to be addressed if we are to achieve clearer air, purer water, and better protected land. It will offer the Region the opportunity to commit to activities, goals, and specific targets that will foster and support activities from all divisions, to achieve, though source reduction and P2, overall environmental strategic targets.

Human Capital

The Region 4 Human Capital Strategy is aligned with Agency guidance with regard to overall approach and initiatives. The agency strategy for Human Capital established six objectives to ensure that the Agency:

- Aligns its workforce to accomplish strategic goals and objectives to protect human health and the environment through effective integration of Agency-wide planning and management processes;
- Conducts workforce planning and deployment at the national, regional, and program levels and deploys employees or assigns work based on mission-critical needs;
- Maintains continuity of leadership and employee skills and competencies through strong knowledge management, employee development programs, and succession planning;
- Encourages a results-oriented workplace and culture by emphasizing performance management;
- Identifies, hires, and retains talented individuals, using innovative and progressive tools for recruitment and retention;
- Evaluates its human capital programs to ensure they are data-driven, cost-effective, and held accountable for results by developing and linking program performance to organizational goals.

Strategic Alignment with Mission:

The overarching initiatives determining the Agency direction in this area is underway and when fully implemented will provide an exact approach and process. By 2004, EPA will make planning reporting and accountability for effective human capital management an essential component of its Annual Performance Plan and Budget. Linking dollars, people, and skills together will enable program managers across the Agency to develop a more complete assessment of the resources required to meet annual performance goals and strategic goals and objectives.

Workforce Planning and Deployment:

Workforce planning is an integral, strategic, and tactical approach for addressing many of EPA's human capital issues. By 2005, EPA's workforce planning system, in conjunction with established Agency systems for planning and budgeting, will support analysis and decision making for effective management of human capital.

To leverage the skills and talent of the workforce, as well as providing for workforce development, Region 4 has implemented a rotational assignment program for both staff and supervisors.

Leadership and Knowledge Management Strategies:

The anticipated loss of institutional knowledge as managers and employees retire clearly highlights the need for effective leadership and knowledge management systems. Region 4 has embraced national initiatives in workforce development and provided additional development opportunities locally.

PERFORMANCE CULTURE

To carry out its mission and mandates, EPA is building a results-oriented workforce and culture. Region 4 leadership has delivered a clear message that accountability is an important element to our mission. Region 4 has emphasized an effective use of the awards program by making Division Directors an integral and participatory member in the process. Each supervisor must provide justification of awards to the Division Director, so that awards will be equitable across Branch lines.

RECRUITING AND RETAINING TALENT

Region 4 has assembled a regional recruitment team to ensure that we are first identifying mission needs throughout the Region and then to aggressively seek a diverse and talented pool of candidates.

ACCOUNTABILITY:

Region 4 has taken steps to ensure that employees are recruited and hired to meet the needs of the Region and in accordance with merit-based principles and other civil service personnel requirements. The Region 4 Human Resources Office has been reviewed by both EPA and the Office of Personnel Management and received endorsements reflecting integrity and effectiveness.

THE ROAD AHEAD

EPA and Region 4's current effort to integrate human capital into its strategic planning process serves as a blueprint for the work that remains to be done. The Region recognizes that implementing the Human Capital Strategy will not happen overnight. It will take time, persistence, and dedicated resources. Responsibility for ensuring sound human capital investment and management will be shared by all Region 4 managers, supervisors, and staff.

Science

The Road to Science

EPA has identified sound science and credible data as a guiding principle the Agency will follow to fulfill its mission to protect human health and environmental quality. Region 4 along with its state and tribal partners, rely on science, technology, and scientifically defensible data

and models to evaluate risk, develop and defend protective standards, anticipate future health and environmental threats, and identify and enforce solutions.

Doing Science

Region 4's Science and Ecosystem Support Division (SESD), through its scientific and technical support services, provides a solid foundation for decision making for a wide variety of environmental programs and initiatives. SESD, with its state-of-the-art laboratory facility and its multi-disciplinary staff of chemists, biologists, engineers, and other scientists and professionals, serves as the primary provider of scientific and technical expertise and environmental data for the Region, states and tribes. Additionally the Region, itself, has numerous scientific and technical experts to ensure that program implementation decisions are based on sound science and research.

The Region will continue efforts to expand and improve upon existing state, tribal and local capacity to identify baseline community and ecosystem health conditions in priority geographic areas. For example, the Region participates in the Office of Research and Development (ORD's) Regional Environmental Monitoring and Assessment Program (REMAP) to assist it with assessing the status and trends of ecosystem health in priority geographic areas. The Region would like to expand beyond EMAP/REMAP to use science to assess environmental vulnerabilities and enhance its planning processes. The Region will look to EMAP/REMAP and other similar tools plus local monitoring efforts to identify potential community and ecosystem health indicators to monitor the condition of priority ecosystems and communities and the success of EPA/State/Tribal program implementation, e.g., its water (OW) and enforcement/compliance assistance (OECA) programs.

The Region recognizes that many of its pressing environmental problems cross media program boundaries and are not always independent, isolated and media specific issues. Additionally, pressing environmental problems are not always chemical specific and can involve low concentrations of chemical mixtures with other stressors. Consequently, the Region will continue its existing efforts to facilitate community chemical-risk health and ecological risk assessments and expanding these efforts to include cumulative risk assessments of chemically-impaired communities/ecosystems, including environmental justice areas, sensitive populations – children, women of childbearing age, the elderly, and others who may be at greatest risk.

The Region channels its portion of grant funds to facilitate science in priority geographic areas and priority sectors. Examples include Region 4's continued support of the Water Quality Protection Program (WQPP) for the Florida Keys National Marine Sanctuary's comprehensive monitoring program and special studies program which funds numerous projects to identify and understand cause and effect relationships among pollutants, transport pathways, and the biological communities of the Sanctuary. Another example is the Region's use of its allocation of Clean Water Act Section 319 (Nonpoint Source) funds to facilitate research and applied science of best management practices to address nonpoint source runoff. As indicated under Goal 2, Clean and Safe Water, nonpoint source pollution ranks high as the source of the Region's

remaining water quality problems.

Obtaining Quality Data

SESD's focus is on producing quality field and analytical data necessary to make a variety of environmental decisions. SESD will continue its existing efforts to assure environmental data of acceptable quality that can be used to make sound environmental decisions by conducting laboratory evaluations and investigations, data evaluations, quality assurance management and project plan reviews, Geographic Information System (GIS) analyses and managing regional quality assurance programs and analytical services/support contracts. Each state and tribal organization receiving EPA funds provides a quality management plan (QMP) for EPA review and approval. The QMP describes the organization's quality assurance policies and procedures which serve to assure that environmental data are of acceptable quality for decision making purposes. Additionally, the Region is committed to maintaining a diverse group of chemists, microbiologists, environmental scientists and computer specialists who can assist federal agencies, state, tribal, and private organizations in planning, implementing and assessing data collection activities.

The Region will support and facilitate the efforts of the National Environmental Laboratory Accreditation Conference (NELAC), a voluntary association of State and Federal Agencies and private organizations formed to establish and promote mutually acceptable performance standards for the inspection and operation of environmental laboratories. Through its NELAC efforts, the Region will ensure that decisions being made from analytical data have a sound technical, scientific, and statistical basis and that laboratories deliver data of the required level of quality. Regional support includes participating and supporting the National Environmental Laboratory Accreditation Program (NELAP) efforts of implementing the NELAC standards. Additionally, the Region will promote and assist with improvements in the credibility and acceptability of industry-submitted data to regulatory agencies. And, the Region will promote and assist with the establishment of a uniform set of standards by which environmental data is produced across the various states, agencies and programs thereby promoting comparability and defensibility. SESD will participate in the NELAP Standards Gap Analyses, which will be performed by an independent third party. Additionally, the Region is focused on updating existing and old, outdated regional laboratory equipment to increase effectiveness in investigation, monitoring and analytical activities and to maintain its state-of-the-art capabilities.

Science Partnerships

States and tribes:

SESD will continue to offer environmental monitoring and technical assistance capabilities to states, tribes, local governments and other federal agencies to assist them with evaluating and addressing problem facilities and priority geographic areas. SESD will also continue its efforts of building individual state, tribal and local government capacity through training workshops, seminars, cooperative studies, and on the job/facility-type training activities.

Region 4 participates in EPA's Tribal Science Council, an organization of Agency and Tribal representatives that works to ensure EPA understanding of Tribal science needs and Tribal access to EPA science

The Region is interested in building networks with other labs within Region 4, especially the state and local public health labs (might be good to recommend working with the state pesticide labs). Additionally, a regional priority interest is to support the establishment of a comprehensive national environmental laboratory response (NELR) network to address the Agency's responsibility for chemicals in the environment and to be ready to address any environmental and human health impacts caused by any terrorist, catastrophic, and emergency events.

ORD and Agency:

Moreover, the Region is actively participating in partnership opportunities with the Office of Research and Development and other Program Offices to make use of the latest and best science and research to facilitate Regional decisions based on sound science. The Region is involved with ORD's Regional Applied Research Effort (RARE) program, Regional Methods Initiative (RMI), the new Regional Research Partnership Program, and the previously mentioned REMAP. The Region will continue to make use of its Hazardous Substance Technical Liaison (an ORD employee assigned to the Region) and its own Regional Scientist Liaison to ORD.

The Region is also forming an innovative partnership with ORD, the Centers for Disease Control and potentially the National Institute of Health to study the human health impacts from various urban growth and development patterns. The intent of this relationship is to evaluate possible links between the Region's growth patterns and its soaring rates for obesity, asthma and pedestrian-related deaths. The Region will also look for opportunities, both internally and nationally, to help local officials design communities that better address the health needs of sensitive populations such as children and the elderly.

Apart from its ORD collaboration, Region 4 has an active Science Council that performs several functions, including identifying science topics that cross division boundaries, providing advice on emerging science policy issues, and communicating science information. Region 4 also has a Science Inventory/Peer Review Coordination Committee which manages participation in EPA's Science Inventory/Peer Review database and provides guidance to staff on peer review policy. The Region 4 Science Council, participates in the National Regional Science Council. Region 4 also is active in the Council on Regulatory Environmental Modeling (CREM) and the EPA Science Policy Council.

Homeland Security

EPA's mission is clear: to protect human health and the environment. In pursuing this mission, EPA has developed certain unique scientific and technical expertise and possesses

additional capabilities which complement those of other federal agencies, including the new Department of Homeland Security.

EPA's Homeland Security Strategic Plan is intended to provide guidance and direction to the Agency as it seeks to integrate its homeland security responsibilities into its traditional mission. It reflects certain responsibilities given to the Agency under such laws as the Public Health Security and Bioterrorism Preparedness and Response Act of 2002, several Presidential Decision Directives, as well as in the President's July 2002 National Strategy for Homeland Security.

Organizing the Work

EPA's homeland security efforts are centered around four main areas of responsibility:

1. Critical Infrastructure Protection
2. Preparedness, Response and Recovery
3. Communication and Information
4. Protection of EPA Personnel and Infrastructure

Each of these areas draws on expertise already possessed by EPA and expands on that experience to meet the challenges faced in protecting the Nation against the terrorist threat.

Critical Infrastructure Protection

Under the National Strategy for Homeland Security, the EPA is named the lead federal agency for the protection of two of the Nation's critical infrastructure sectors: the Water sector and the Chemical Industry and Hazardous Materials sector. In addition, the Public Health Security and Bioterrorism Preparedness and Response Act of 2002 gives EPA specific responsibilities for promoting the security of the Nation's public drinking water infrastructure.

These missions draw on EPA's unique programmatic responsibilities and expertise related to the drinking water and wastewater industries and the use, handling, storage, release, and disposal of chemicals and chemical wastes at industrial facilities. In addition, EPA's experience with air monitoring and indoor air quality issues have resulted in it being given the lead by the then-Office of Homeland Security at the White House for the BioWatch system being put in place in various cities across the country to monitor for airborne release of certain biological contaminants.

An overview of the DWS Approach to Homeland Security for Water Infrastructure

The Drinking Water Section (DWS) has been actively involved in drinking water security efforts since 2001 when EPA HQ established the Water Protection Task Force (WPTF) which is now the Water Security Division (WSD) in the Office of Water. We are currently providing oversight to 82 water security grants and 8 State grants. The water security grants were awarded to large community water systems to conduct vulnerability assessments (VA), emergency response plans (ERP), and/or security enhancement planning and design. The grants awarded to the States are to provide assistance to smaller utilities in the training and preparation of VA, ERP and/or security enhancement planning and design. The oversight of these grants involve quarterly calls to grantees on the current status of the VA and ERP; identify issues that could potentially delay the submission of the VA by the statutory deadline provided in the Public Health Assessment and Bioterrorism Preparedness and Response Act (Bioterrorism Act) of 2002; and identify additional water security needs and how EPA can further assist water utilities. Site visits have also been conducted to some of the utilities and additional site visits are planned.

Regional Homeland Security efforts also involve support of the Water Security Division in research activities focused in water security as well as providing assistance to community water systems, States, Tribes and local governments in complying with the requirements of the Bioterrorism Act. Region 4 assisted in the development of the Information Protection Protocol prepared by the WPTF to protect the information contained in the vulnerability assessments from unauthorized disclosure. We will continue working with the WSD on research efforts to identify methods to detect, contain and decontaminate biological and chemical agents; identify monitoring equipment and analysis methods for rapid risk assessments; and provide water utilities the tools needed to conduct VA and ERP.

We are in constant communication with Region 4 Public Water System Supervision (PWSS) State Directors on any relevant issues that impact the security of water systems including forwarding information from the National Infrastructure Protection Center (NIPC), the Department of Homeland Security (DHS) and WSD on changes in threat levels, threat alerts, guidance documents, and any other pertinent information. Another method of communication and information exchange is through the State Director's meetings held twice a year. We are also planning on utilizing the State Directors meeting to facilitate communication between Region 4 PWSS State Partners and EPA's Homeland Security Research Center on appropriate tools and research efforts regarding security of water utilities.

Another approach that we are undertaking concerns drinking water utilities serving military installations. Military installations are vital assets to our Nation's defense strategies, and their mission could be compromised in the event that water service is interrupted due to a terrorist attack or other intentional acts. We have been in communication with the Department of Defense Southern Region and Environmental Office to identify water utilities that provide drinking water through consecutive system arrangements to military assets in Region 4. Once the list is generated, we will be in contact with these utilities to ensure that they are taking action to improve security in their facilities.

Preparedness, Response and Recovery

Under the National Strategy for Homeland Security and various Federal response plans, EPA has specific response and recovery responsibilities. As the Agency's experiences since September 11 have made clear, the Agency should expand and enhance its ability to provide response and recovery support to any future terrorist events. Under this goal, EPA will focus on strengthening and broadening its response capabilities, clarifying its roles and responsibilities to ensure an effective response, and promoting improved response capabilities across government and industry in the areas in which the Agency has unique knowledge, experience, and expertise. Among the program offices involved in this effort are OSWER, OPPTS, and ORD.

1. EPA Region 4 will prepare to respond to a terrorism incident by (1) training the On-Scene Coordinators and response support personnel in the latest technological tools and incident management concepts, (2) leading and participating in counter-terrorism (CT) drills and exercises involving our federal, state, local and industry partners, (3) purchasing and maintaining state-of-the-art CT response equipment, (4) leading periodic Regional Response Team meetings to coordinate with our state and federal partners, (5) coordinating and drilling with our back-up EPA Regions, and (6) developing plans to address terrorism.
2. EPA Region 4 will continue to operate the pre-eminent emergency response program in EPA. This response program will address threats to public health and the environment from releases of oil and hazardous substances, including intentional releases of hazardous substances in terrorism incidents.
3. EPA Region 4 will lead the recovery from a major terrorism incident as Chair of Emergency

Support Function #10 (Hazardous Materials) in the Federal Response Plan. EPA Region 4's trained and equipped personnel will accomplish this work along with its highly qualified cadre of contractors.

Communication and Information

Comprehensive, accurate, well-organized, and timely information is critical to sound decision making internally and to maintaining public confidence in times of threat. EPA possesses unique capabilities to collect, synthesize, interpret, manage, disseminate, and provide understanding to complex information about environmental and human-made contaminants and the condition of the environment. Effectively managing and sharing this information within the Agency, among its partners at all levels of government, with the private sector, and with academia will contribute to the Nation's capability to detect, prepare for, prevent, protect against, respond to, and recover from terrorist incidents.

Communications is one of the most critical elements in responding to an emergency and/or catastrophic event. Communications is necessary to warn personnel of danger; keep families/off-duty employees/stakeholders apprized of a given emergency; and to coordinate response actions. In the event of a natural disaster, catastrophic event or terrorist attack within Region 4, the normal means of communication in the affected area(s) may be diminished or largely incapacitated. This would possibly result in limited and/or incomplete information from the disaster area until communications can be restored. In the immediate aftermath of such a disaster or event it is critical that a mechanism be established to respond to requests for information from media (print and broadcast) and congressional representatives.

The initial response and assessment of any major emergency or disaster is expected to originate with the Emergency Response and Removal Branch as the Region's emergency response program. This crisis communications plan is designed to facilitate quick responses, clear thinking and inclusiveness under fire. It will work hand-in-hand with the Regional Incident Coordination Team (RICT), focusing on clearly presenting the situation. The goal of this plan is to gather all critical information in one place, so you won't have to search for it during the actual event.

Protection of EPA Personnel and Infrastructure

The security and protection of its own personnel and infrastructure are critical to ensuring EPA's ability to respond to terrorist incidents as well as continue to fulfill its mission. In recognition of this and in light of the new environment under which we work, EPA is undertaking steps to further safeguard its staff, ensure the continuity of its operations, and protect the operational capability of its vital infrastructure asset. OPM coordinates this effort in R4.

PROTECTION OF EPA PERSONNEL AND INFRASTRUCTURE GOALS

1. EPA will safeguard its employees
2. EPA will ensure the continuation of the Agency's essential functions and operations.
3. EPA will maintain a secure technology infrastructure capable of supporting lab data transport and analysis functions, 24x7 telecommunications to all EPA locations, and management of critical data and information.
4. EPA will ensure that the Agency's physical structures and assets are secure and operational.

Cross-Good Issues

Agriculture

Current Situation: Agriculture is a vital part of Region 4's culture, economy and landscape. It provides an economic base for much of the Southeast, as well as providing open spaces and habitat for wildlife. Agriculture also impacts the natural resources in the Region and presents unique challenges to EPA's environmental programs. Due in large part to the non-point source nature of agricultural processes, EPA Region 4 believes that innovative approaches are necessary to address the many cross-media issues we face.

Erosion and run-off from agricultural practices adversely impact our streams with nutrients, sediments, and pesticides. The growth of managed animal feeding operations and the need for farms to increase crop outputs are exceeding the capacity of natural systems to assimilate the largest nonpoint sources of surface water pollution in the Southeast. Large and small scale feeding operations also impact air quality from the release of methane. Disposal of solid waste byproducts associated with agricultural production are also of concern across communities in the Southeast. These issues highlight the need for approaching agricultural issues from a cross-good perspective. Another issue of growing importance is the conversion of prime agricultural land to urban development around many of the rapidly growing metropolitan areas in the Southeast. This issue is significant as new subdivisions and impervious surfaces change the landscape impacting the air, water and land in dramatic ways that fragment ecological processes and impair ecosystem services.

Though there are significant problems associated with agriculture, improvements in farm and management practices over the past 20 years are a reflection of the farming communities' commitment to good stewardship practices and innovative partnerships at the local, state and federal level. Education and implementation of Best Management Practices (BMPs) such as crop residue management, contour tillage, strip cropping and land retirement have

protected waterways and improved soil. BMPs associated with animal feeding operations such as rotation and grazing, proper manure management, and installation of stream buffers have improved water and air quality. The use of Integrated Pest Management (IPM) on crops has reduced the instances of pesticide misuse and improved farm worker safety. Finally, greater attention to agricultural air issues such as emissions from large confined animal feeding operations, burning of crop residue, use of controlled burning in forestry practices and BMP alternatives to plowing large fields have yielded improvements in air quality near agricultural operations.

Region 4 is committed to a holistic approach in addressing agricultural pollution problems. Cross-goal approaches within EPA, partnerships with federal, state and local governments, and working closely with industry, stakeholder associations and organizations are seen as the most effective and efficient approaches to addressing these environmental and human health issues across the Southeastern United States.

Issues: Agriculture has long been a major source of nonpoint source pollution, i.e., any pollution whose specific point of generation and whose exact point of entry into a water course cannot be defined. EPA's National Water Quality Inventory reports that 48% of the impaired river and stream miles across the country are impacted by agricultural practices. Common pollutants from agriculture include sediments, pesticides and nutrients.

Pesticides have enabled the United States to become one of the top agricultural countries in the world. Along with this distinction comes the potential misuse of these chemicals. The subsequent contamination of soil, water and air can be overcome with education and willing partnerships that focus on the multiple impacts and economic realities of individual farms. Use of BMPs, worker protection training, and emphasis on the transition of minor crops to lower risk pesticides are just some of the avenues that may be taken to reduce unnecessary contamination in the environment.

Another agricultural activity cited as contributing to the degradation of water quality are animal feeding operations. Concentrated Animal Feeding Operations (CAFOs) are considered a subset of animal feeding operations and have become an increasingly important environmental issue in the Southeast due to the rapid proliferation of very large operations in a short time. A recent assessment shows that Region 4 has the largest percentage of CAFOs in the country. By 2006, the Region is projected to have 30% of the permitted CAFOs in the United States. With this growth, methane emissions from this sector will become an increasing problem in the Southeast. Carbon emissions from burning crop residues, controlled burning of managed forest lands, and particulate matter from traditional farming practices will also continue to be air quality issues around non-attainment areas.

Aquaculture and shellfish harvesting present additional challenges for the Southeast region. With rapid growth and development concentrating along the coast line, the adverse impact of runoff from urban areas and the competing uses of limited water supplies will require new thinking on water allocation formulas at the state level. The growing need to address multiple uses of a limited water supply is already manifested in Georgia, Alabama and Florida.

each state seeks to protect their economic and environmental interests for the long term.

Methane emissions from CAFOs, carbon emissions from burning crop residues and control burning of managed forest lands, and particulate matter from traditional farming practices are impacting the environment. This is especially true in parts of the Region in or near non-attainment areas.

Future Direction: The Southeast is one of the fastest growing areas in the nation. It is also one of the most diverse agricultural regions. These demographics often lead to conflicts at the point of rural and urban interface. It is with this in mind that Region 4 strongly supports partnerships and coordination with stakeholder groups. One innovative strategy has been the development of an information delivery system that highlights the existing critical ecosystems in the Southeast and many of the potential adverse impacts from agricultural sources. This approach to identifying and targeting specific issues at the state and local level also provides an opportunity to integrate programmatic activities across industry, federal agencies, and state programs in a coordinated fashion. In association with other innovative tools, EPA Region 4 is in a position to work outside of the existing command and control structure to address nonpoint source issues across all media.

The Watershed Approach is another tool that is strongly supported by Region 4. It encourages federal support to state and locally led groups for capacity building, educating, and addressing problems at the source. Locally led groups bring diverse stakeholders from the area that is most affected by the issue. The Watershed Approach also provides a geographic area of focus, the watershed, to give the community a reference for action across multiple issues.

In Region 4, the Pesticides Program has worked on many cross-media agricultural issues in recognition of the close relationships between, for instance, proper soil management and a reduction in pest pressure. Region 4 continues to be a national leader in its support of activities related to the use of safer pest management alternatives and has worked to help set policy and direction for integrated pest management in the Southeast.

BMPs can be used to prevent or reduce the amount of pollution generated by nonpoint sources to a level compatible with water quality goals. Most BMPs involve the application of sound conservation principles that not only minimize sediment, pesticide and nutrient runoff into surface water, but also meet the needs of the total ecosystem, that is, the soil, water, air, plants and animals.

Pollutant trading is also an innovative area of consideration in Region 4. The recently released Water Trading Policy is a market-based approach to improve and preserve water quality. Trading can achieve water quality goals with greater efficiency by allowing one source to meet its regulatory obligations by using pollutant reduction created by another source that has lower pollution control costs. EPA's policy supports trading of nutrients and sediment load reductions. Therefore, there is great promise for partnerships between agriculture and industry in this area. Another trading source that may be forthcoming is Carbon Sequestration. The idea of planting

trades to trade for emissions is appealing to both the agricultural and industrial sectors and can provide added co-benefits to the value of water quality protection projects.

Finally, agricultural partnerships are vital to the success of any program. Region 4's priority will be to focus on partnerships between agriculture, industry and government at all levels. Some partnerships may be external and include multiple federal agencies, state agriculture and environmental departments, tribes, local governments, associations, and/or local watershed groups. And some may be internal cross-media workgroups such as the Regional Agriculture Workgroup or national workgroups formed to address particular agricultural issues. All groups have a piece of the puzzle and must work together to resolve the complex economic and environmental issues facing the Region.

Mercury

Mercury contamination, primarily in aquatic and marine ecosystems, has been shown to be a pervasive environmental problem throughout the southeast. Mercury is a persistent, bioaccumulative toxic (PBT) element that finds its way into water bodies, and eventually into aquatic and terrestrial food chains, largely through deposition from air emissions sources. These sources include coal-fired power plants, municipal and medical incinerators, and chlor-alkali plants (chlorine manufacturers). Elemental mercury, once deposited into aquatic or marine environments, becomes highly available for uptake into the food chain through a process of methylation, which occurs largely in anaerobic sediments, where the methylated mercury is bioaccumulated, first by benthic organisms, then by other organisms in the food chain.

Perhaps the most illustrative indication of the pervasiveness of this problem is the number and extent of fish consumption advisories issued by state health and environmental agencies, based on the mercury content in various fish species. All eight states in Region 4 have issued some form of advisory based on mercury contamination of fish tissue. Some states, like Florida, Georgia and South Carolina have issued hundreds of advisories, for both inland rivers and lakes, and for coastal and estuarine waters. In all six states with coastal waters in Region 4, fish consumption advisories based on mercury have been issued for *all* coastal waters, for one or more species of game and/or commercial fish. In Kentucky, a state with no coastal waters, a state-wide mercury advisory has been issued, for all species, in all waters. In South Carolina the entire length of the Black, Congaree, and Salkehatchie Rivers are under mercury advisories for as many as 5 species, and hundreds of miles of river reaches in the Edisto, Congaree, Coosawatchie, Pee Dee, Santee, Savannah, and Waccamaw Rivers are under similar advisories. The affected species tend to be predators, sight-feeders, and others at or near the top of the food chain, such as king mackerel and grouper in marine waters, and various species of bass in fresh waters. The widespread occurrence of elevated mercury levels in fish tissue, even in waters not

listed as impaired by elevated mercury levels in the water column, illustrate the Region-wide nature of mercury contamination.

Nonetheless, water quality impacts associated with mercury are also widespread. For example, the CWA Section 305(b) report for the state of Florida lists more than 50 streams, stream segments, or lakes that are impaired by mercury contamination. Mercury contamination is cited as an impairment in the 305(b) reports for all eight states in Region 4. These impairments contribute greatly to the workload anticipated by both Region 4 and the eight states in the region. Again using Florida as an example, the CWA Section 305(b) report also identifies more than 50 separate TMDLs will have to be developed in Florida for mercury contamination alone. Similar situations exist in other states, especially Georgia, North Carolina and South Carolina. Given the complex nature of the evaluation of mercury sources, and fate and transport of mercury emissions, this represents a significant demand on the resources of the regulatory agencies in Region 4.

The challenge of mercury contamination in Region 4 is compounded by the fact, widely recognized that the source of water quality and food chain impacts are sources regulated by the air program at EPA and the states. As part of a national effort to strategically develop activities related to PBT chemicals, EPA has developed a draft national Action Plan for mercury. This Action Plan has not been finalized, and public comments made on the initial draft are still under review. The draft plan, however, contains a number of activities and actions for the reduction of mercury emissions and releases which will involve Regional support and participation. These include:

- New air emission regulations for municipal incinerators and medical waste incinerators.
- Emission standards for incinerators, cement kilns, and light weight aggregate kilns that burn hazardous waste.
- Gather high quality emissions data about coal-fired electric generating plants to address current uncertainties about mercury emissions and support a regulatory action.
- Promulgate emissions standard for chlorine production facilities.
- Foster an air deposition/water quality management approach with state and local partners, including providing states and tribes with tools for developing and implementing total maximum daily loads (TMDL) for mercury from air deposition.
- Accelerating development of a revised water quality human health criterion for mercury, which will reflect two major elements: a revised Human Health Methodology -- this provides for use of BAFs rather than BCFs, and improved means for estimation of fish consumption; and an updated human health risk assessment.

- Mercury consumption in the United States is attributable primarily to a few categories of products and processes, including the manufacture of chlorine and caustic soda, wiring devices and switches, measuring and control instruments, dental amalgam and laboratories. EPA is pursuing a number of voluntary reduction initiatives in these industrial uses and releases of mercury.
- Reduce reporting threshold for mercury under Section 313 of the Emergency Planning and Community Right-to-Know Act (EPCRA).

Region 4 will develop a plan of action to support state and local actions to reduce mercury. State and local governments are vital to the achievement of mercury reductions. They have a central role to play in outreach to the business community and to the general public about the importance of properly disposing of mercury-containing products and the alternatives to such products. In addition to this important pollution prevention role, State and local governments have developed innovative mercury reduction laws and regulations that supplement, and in some cases provide a model for, national efforts. EPA supports State and local efforts through funding of mercury reduction projects, provision of information about mercury sources and reduction opportunities, and coordination of joint efforts.

Examples of current projects supported by EPA include an exploration in Minnesota of innovative ways to regulate the release of mercury comprehensively, including from currently-unregulated sources, such as a mercury emissions "cap-and-trade" program; State mercury task forces, which are bringing together stakeholders to make and implement recommendations for sectors that use or release mercury; mercury "clean sweeps" that collect and properly dispose of household and small business stores of unneeded mercury; mercury pretreatment programs at sewage treatment districts; investigation of use of mercury in ethnic practices, and a variety of outreach efforts to small business. State business outreach efforts funded by EPA include a program to encourage heating, ventilation, and air conditioning contractors and suppliers to promote the use of non-mercury thermostats and to properly dispose of mercury thermostats that they replace, and outreach to hospitals and other medical care facilities to encourage them to avoid or limit the use of mercury-containing products and to properly manage the disposal of existing mercury.

In addition, Region 4 will support State, Tribal and local efforts to educate the public on appropriate ways to reduce mercury exposure. As part of this effort, EPA will continue to provide State, Tribal and local agencies with technical assistance in the development of fish consumption advisories that reflect local mercury levels and local fish consumption patterns, and which balance the risks of exposure to mercury with the health benefits of including fish in the diet.

Cool-Fired Electrical Generation Plants

The emissions and releases from coal-fired power plants in Region 4 reflect national priorities and issues and in addition present challenges that are somewhat unique to Region 4, in part due to the rapid growth in population in the eight Region 4 states. For example, the emission of NOX, SOX, and greenhouse gases, while having regional and local impacts on air quality, are national priorities, and Region 4's activities will reflect, and contribute to, national goals for these emissions. Similarly, the regional implementation of New Source Review (NSR) reforms as they related to power plants will be consistent with national policy and efforts in this arena.

Due to the presence of a good portion of the nation's generating capacity in Region 4, regional contributions to these efforts will necessarily impact progress towards national goals. Fully 26% of the national electric power generating capacity of the continental United States lies within Region 4. Approximately half of that Region 4 generating capacity is from coal-fired plants. Therefore 12-15% of the national electrical generating capacity comes from coal-fired plants in the eight Region 4 states. This proportion is likely to increase, as the population of the southeast continues to grow at a pace that is greater than the national average.

Region 4 faces a number of unique challenges related to power generation, as well as those related to national priorities. For example, as discussed in the section related to pervasive mercury contamination in Region 4 aquatic and marine environments, coal-fired power plants are a major contributor to mercury emissions in the southeast, thereby contributing in turn to water quality, sediment quality, and fish tissue contamination problems. While EPA is in the process of developing an action plan that will attempt to quantify mercury air emissions from power plants, estimates of those emissions, developed from emission factors, coal usage, and other sources, are available. It is estimated that coal-fired power plants in Region 4 annually emit into the atmosphere approximately 20,000 pounds of mercury. Given the fact that air deposition is the primary source of mercury found in aquatic and marine systems, it is reasonable to state that emissions from coal-fired power plants are a major contributor to this problem.

Another issue facing Region 4 and the eight states therein is the proliferation of "merchant" power plants. These plants are those that are located in areas far removed from identifiable energy demands, often in a location near plentiful fuel sources, such as coal fields. Merchant plants are designed to provide energy into the ever-growing and increasingly interconnected power "grids" both within Region 4 and in other adjacent Regions. This activity has the effect of creating sources of air emissions and other wastestreams in remote and previously lightly developed areas, and in some cases in locations where those emissions may have a significant and negative impact on highly valuable natural resources. For example, Kentucky has received numerous inquiries about permitting of merchant plants in the eastern part of the state. Emission from plants in those areas have the potential to severely impair air quality and visibility in national forests and national parks located in the Appalachian Mountains. Siting issues for merchant plants are fraught not only with the need to evaluate traditional air quality impacts, but also issues related to regional transport of pollutants, environmental justice, and natural resource

trustee responsibilities. Nationally, approximately 400 such merchant plants are in various stages of planning or development.

Region 4 is in the position of having the opportunity to play a major role in all of these issues, at both the national and Regional levels. In order to do so, Region 4 must take a leadership role in developing innovative and effective approaches to reducing the emissions from coal-fired power plants, by working closely with states, local communities, and the regulated community. One advantage that Region 4 may have in an effort of this type is the fact that the electric power industry in Region 4 is highly concentrated in terms of corporate ownership.

For example, 70.3% of the coal-fired generating capacity in Region 4 is owned or operated by only four companies: Southern Company, Tennessee Valley Authority (TVA), Duke Power, and Carolina Power and Light. By the same estimates of mercury emissions cited above, plants owned or operated by these four companies emit 72.8% of the regional total mercury emissions into the atmosphere. This concentration of both capacity and estimated emissions presents an opportunity for Region 4 to approach these problems on a Regional and corporate level, rather than on a plant-by-plant basis.

Opportunities for mercury reductions, in particular, may exist, and may be identified by simply comparing existing practices and activities between facilities. Again as an example of the coal-fired plants in Region 4, the mercury emission rate, expressed as lbs. Hg emitted per MW capacity, ranges over an order of magnitude, from a high of 0.64 to a low of 0.06. Region 4 and state agencies should review the operating parameters, fuel sources, and other factors that may affect these emissions and make a determination if there are existing practices and procedures that contribute to lower mercury emission rates.

With respect to the issue of merchant plants, Region 4 should also take a leadership role in coordinating state regulation of power plant siting and permitting. This coordination should focus on ensuring that other Regions, and states in other Regions, federal and state natural resource trustees, and local communities are represented and participate in those decisions.

As a future consideration, Region 4 will evolve a regional approach to these issues by establishing a workgroup that includes voluntary participation by the four major electric power generating companies in the region, as well as the states, other Federal agencies, and a cross-section of interested citizen groups.

Growth

Rapid population growth throughout the Southeast has become a significant issue in Region 4. This growth and the associated changes in land use are creating newer, more complex multi-media environmental challenges. Region 4 is focusing on ways to provide resources, tools and assistance to communities that are struggling with overwhelming growth as well as those that are trying to attract growth in a positive manner. Air, water and land issues related to this growth are rapidly becoming the top priorities not only at the State and local level, they are

becoming priorities for our partner Federal Agencies and our own media programs. These issues include excess flooding and urban degradation from impervious surface runoff, ozone production from increases in vehicle miles traveled and decreased species diversity from loss of open space. These same groups are also feeling an increasing pressure to do something to respond to the problem. Policies, training courses, tools, financial opportunities, research and articles are being developed at an ever increasing rate. Three years ago the Region began to take a more proactive approach to an expanding Regional problem. As a compliment to the existing Sustainable Development Program, the Region created a Smart Growth Program (often referred to as Quality Growth). This program brings together internal staff, federal agencies, states, local officials, businesses, researchers, non-profit organizations and private individuals to address growth-related issues and to develop better tools for community planning. The program also:

- Works closely with staff from the Air, Water and Waste Divisions on specific projects, grant reviews, training courses and program development to reduce the impacts Agency decisions may have on rapidly growing and sprawling communities.

- Responds to numerous requests from partner Agencies, like Department of Defense and Tennessee Valley Authority, for assistance on specific base and community problems resulting from growth.

- Partners with organizations, such as the Southeast Watershed Forum, to help train local officials and build community skills to solve growth-related issues.

- Provides input in the initial development stages, production stages and during distribution to ensure the tools being developed by EPA, universities and private companies meet the real-world needs of the end-users.

- Work closely with Offices in Headquarters to make sure that Region 4 viewpoints are included when developing policies, programs, training etc. at the National level.

These are just a few of the ever increasing activities in the Smart Growth Program. To fully meet the increasing challenges brought on by the Southeast's rapid growth, Smart Growth/Quality Growth principles must be integrated into the Region's existing programs, our states and local communities. Programs that have aided in helping communities address their growth issues include but are not limited to:

- WATER: Non-point Source Program, State Revolving Fund, Stormwater Permit Program, TMDLs, and the MOM Program

- AIR: Mobile Sources and CAA Conformity Requirements

- WASTE: Brownfields, Land Revitalization Initiative and Environmental Justice

- OTHERS: National Environmental Policy Act, Innovations Initiative, Tribal Programs, and the Children's Health Initiative

To reiterate, Smart Growth/Quality Growth is a concept. To be successful and meet the complex challenges brought about by rapid population growth, Smart Growth must be woven into already existing programs. Region 4 is working to make that happen. To be effective, we

must continue to train our staff and provide access to needed resources so they can help states and local officials implement Smart Growth/Quality Growth. We must also continue to build strong partnerships with other Agencies, the states, local communities, businesses and non-governmental organizations. Finally, we must be willing to try new and innovative approaches to solve these complex, multi-media problems.

Chapter 4: REGION 4 ACCOUNT ABILITY SYSTEM

Region 4 will initiate a yearly accountability process to determine progress toward meeting our strategic planning objectives and subobjectives. This process will consist of 1) development of accountability measures as part of God Chapter development, 2) development of environmental indicators to reflect progress in meeting long term goals and objectives, 3) initiation of yearly God Progress Meetings with RA, DRA and managers responsible for achieving objectives and subobjectives, 4) a written end-of-year accomplishments report for the RA and DRA on progress in meeting accountability measures, and 5) a bi-annual environmental indicators report to show the public and Region 4 Senior Managers what progress we are making toward achievement of long term goals and objectives associated with our strategic plan. The schedule for implementing each of these activities is presented below.

1) Development of Primary Measures of Progress as part of God Team Chapters - November 10, 2003

The God Team Chapters should highlight the primary measures (national and Region-specific) that the Region will use to track progress in implementing its strategy.

2) Initiation of Yearly God Progress Meetings - December, 2003

Beginning in December, 2003, the RA and DRA will hold yearly God Progress Meetings with the managers responsible for addressing the objectives and subobjectives associated with each of the five Agency goals. The 2003 meetings will consist of a discussion of the long term strategies developed to meet each objectives as well as major activities to be accomplished in FY 04. Future year meetings will address accomplishments for the previous year as well as future activities.

3) Development of Environmental Indicators to reflect progress in meeting long term goals and objectives - April 4, 2004

Region 4 will develop and track over time a set of environmental indicators which will represent current environmental conditions and trends associated with each objective in the strategic plan. Indicator development will be led by the Planning and Analysis Branch in coordination with Region 4 program staff and our States.

4) End-of-Year Accomplishments Report - October, 2004

Beginning in October, 2004, a written end-of-year accomplishments report will be prepared for the RA and DRA on progress in meeting accountability measures associated with each goal. The report will be prepared by the ARA for Policy and Management based on information provided by the program divisions.

5) Environmental Indicators Report - November, 2004

Beginning in November, 2004, Region 4 will prepare a bi-annual Environmental Indicators Report to show the public and Region 4 managers what progress we are making toward achieving the long term goals and objectives associated with our strategic plan. The ARA for

Policy and Management will be responsible for preparing this report.

Chapter 5: State and Tribal Issues

State Discussion

Region 4 works closely with our State partners on our joint mission of protecting and improving environmental quality in the southeast. The Region strives to maintain close working relationships with each of our States at all levels of the organization. We visited each of the States prior to the development of this plan to discuss their priorities and have given them the opportunity to review drafts of the Region 4 Strategic Plan. We currently have Performance Partnership Agreements with Georgia and Mississippi and Performance Partnership grants with Georgia, Mississippi, and South Carolina.

Water quality issues related to non-point source pollution are a major concern throughout the States of Region 4. Nutrient and pesticide problems related to agricultural activities are the biggest single concern. Erosion and sedimentation resulting from urban development is also a major issue. Low flows resulting from drought conditions 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 4 strongly supports the watershed approach to addressing water quality issues. We are using the 319 program and project grants and other available grant funds to help address these issues along with technical assistance.

Although merchant power plant applications have receded with the slowing economy and the Enron bankruptcy, energy related issues are still a long-term concern to Region 4 and many of our States. There is a potentially significant adverse impact to regional air and water quality from new or expanded power plants. Resources are needed to provide assistance to our States in assessing cumulative multi-media impacts of new power generation and provide region-wide air quality impact analysis. Resources are also needed to encourage energy conservation throughout the southeast.

A primary overarching issue for each of our State partners concerns resources and infrastructure. This issue has several major components. The most immediate concerns relate to state budget shortfalls caused by economic conditions. Other key concerns relate to information management needs and human capital issues. Region 4 is maintaining close contact with our States to monitor the impacts of resource shortfalls on program implementation. The States have requested additional technical support and flexibility from Region 4 to help maximize the effective use of their resources. The human capital issue relates to the coming retirement of large segments of veteran technical staff and managers in the next few years. The States would like EPA to provide additional technical support and technical 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 4 and our States to accomplish our environmental mission quicker, more thoroughly and with the use of less resources. More detail of what we are doing in this area are presented in the Environmental Information section of Chapter 3.

The protection of critical ecosystems and greenspace is a significant issue for many of our states. Florida currently spends \$300 million per year in natural resource protection through the purchase of greenspace identified under a state developed hub and corridor system as part of the Florida Forever program. Georgia has instituted a Community Greenspace program designed to protect 20% of the available land in the fastest growing counties in the state to protect water quality and connect communities with natural resources. Georgia is also moving toward the development of a connected state-wide greenspace strategy. North Carolina has been moving forward with their Million Acre Initiative through the One North Carolina Naturally program that has conducted a number of public outreach meetings across the state's ecoregions to identify important areas and corridors for protection.

Region 4 has developed an ecological hub and corridor network for our eight states through a cooperative agreement with the University of Florida based on their work with the Florida Greenways Commission. We are supporting our states with the Southeastern Ecological Framework as a tool for integrating ecosystem connectivity into state greenspace strategies, county strategies and non-profit strategies across the southeast. Region 4 has also developed a decision support tool that provides valuable environmental information in relation to the Southeastern Ecological Framework through a Geographical Information System viewer that highlights data & funding sources that may support or impact greenspace protection efforts at a variety of scales.

Tribal Discussion

Region 4 sent the first draft of our Plan to our Tribes in early March 2003. Later that month, our Strategic Plan was discussed at the Region 4 Tribal Meeting in Atlanta. The background, purpose and organization of the Plan were explained and a discussion and question period followed. Region 4 Tribes have also been given an opportunity to review and comment on a Revised Draft of the Plan which was developed in November 2003.

Tribal governments in Region 4 face issues relating to growth, sustainability and self governance. Growth stressors include the building of casinos, the expansion of casinos and the growth of utility services to populations on and off tribal lands. Sustainability issues include the maintenance and operation of facilities as well as the planning needed to reduce the environmental impact of tribal operations in general. Issues of self governance have a long history and will continue to be addressed by both the Tribes and EPA.

Specific issues which will be incorporated into future Tribal/EPA Agreements (TEAs) to empower tribal governments to more fully participate in their future development include

- the exploration for, financing of and operation of new sources of drinking water

- the planning, financing, and implementation of tribal solid waste programs including recycling components

the planning and financing of upgrades to wastewater collection and treatment systems

The Region, together with the Tribal governments, will undertake a comprehensive assessment of all aspects of the environmental conditions on Tribal lands. This cross-program effort will be complete in late 2003 and the results will influence the TEAs signed thereafter. Each TEA will document specific actions, environmental goals and work commitments for both EPA and the Tribal government.