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6. NATURAL RESOURCES AND ENVIRONMENT

Table 6–1. Federal Resources in Support of Natural Resources and Environment
(Dollar amounts in millions)

Function 300	1993 Actual	2001 Estimate	Percent Change: 1993–2001
Spending:			
Discretionary budget authority	21,405	28,778	34%
Mandatory outlays	168	157	–7%
Credit Activity:			
Direct loan disbursements	39	43	10%
Tax expenditures	1,595	1,550	–3%

The Nation faced a number of serious environmental problems in 1993. Neighborhoods were blighted by toxic waste dumps because only 12 percent of the Nation's worst sites had been cleaned up despite 12 years of Federal effort. Sixty-two million people lived in areas with drinking water that failed to meet Federal standards, and 150 million people lived in areas that failed to meet air quality standards. Further, many of the Nation's most well-known natural treasures, such as Yellowstone National Park, were endangered by the adverse effects of encroaching development.

President Clinton came into office committed to providing the American people with a cleaner environment, stronger communities, and a brighter future for families across the country. Since 1993, the President has invested in a common sense and cost-effective approach of using new technologies, pursuing tougher enforcement of environmental laws, strengthening public health standards, and protecting our irreplaceable national treasures.

As a result, the Nation has the cleanest environment and strongest economy in a generation. Almost four times as many Superfund sites were cleaned up during the Clinton-Gore Administration as in the previous 12 years. Compliance with drinking water standards increased from 83 percent of the population served by community water systems to 89 percent of the population, and the number of areas out of attainment with the ozone air quality standard dropped from 98 to 37. In addition, the Administration has protected from environmental harm tens of millions of acres of national parks and forests, national monuments and wilderness areas, from the red rock canyons of Utah to the Florida Everglades.

As a part of his effort to protect our environment and natural resources, the President promoted targeted investments in key environmental initiatives, and fought back numerous anti-environmental riders that would have traded hard-won environmental safeguards for short-term special interest gains. Table 6–2 compares 1993 and 2001 funding for high-priority environmental and natural resources programs in this and other Government function areas. In 2001, for the natural resources and environment function only (Table 6–1), the Congress enacted $28.8 billion in discretionary budget authority to protect public health, the environment, manage Federal lands, conserve resources, provide recreational opportunities, and construct and operate water resources projects. This is an

Table 6–2. High-Priority Environmental and Natural Resource Programs

(Budget authority, dollar amounts in millions)

	1993 Actual	2001 Enacted	Percent Change: 1993–2001
Lands Legacy Initiative (DOI, USDA, NOAA)[1]	**380**	**1,689**	**344%**
Farm Conservation Initiative (USDA) (mandatory)[2]	**1,584**	**2,122**	**34%**
Clean Energy Initiative (DOE, USDA, AID, DOC, TDA, EX-IM)	**251**	**321**	**28%**
Greening the Globe Initiative (AID, Treasury, USDA)	**82**	**121**	**48%**
Climate Change Technology Initiative (DOE, EPA, USDA, HUD)	.....	**1,239**	**NA**
Clean Water Action Plan (EPA, USDA, DOI, NOAA, Corps)	.....	**2,303**	**NA**
Salmon Habitat Restoration (NOAA, Corps)	.....	**231**	**NA**
Endangered Species Act (DOI, NOAA)	**75**	**178**	**137%**
Department of Transportation (DOT):			
Mass Transit	3,774	6,274	66%
Congestion Mitigation and Air Quality	601	1,661	176%
Environmental Enhancements; Preservation Pilots	114	797	599%
Subtotal, DOT (Select programs)	4,489	8,732	95%
Department of the Interior (DOI):			
National Park Service Operating Program	984	1,472	50%
Bureau of Land Management Operating Program	638	817	28%
Fish & Wildlife Service Operating Program	531	777	46%
Subtotal, DOI (Select programs)	2,153	3,066	42%
Department of Agriculture (USDA):			
Forest Service Operating Program	1,319	1,968	49%
Natural Resources Conservation Service Operating Program	577	714	24%
Water/Wastewater Grants and Loans	508	644	27%
Subtotal, USDA (Select programs)	2,404	3,326	38%
Environmental Protection Agency (EPA):			
Operating Program	2,767	3,866	40%
Subtotal, All EPA	6,923	7,829	13%
Department of Energy (DOE):			
Energy Conservation and Efficiency (gross)	592	817	38%
Solar and Renewable Energy R&D (net)	249	376	51%
Federal Facilities Cleanup (Environmental Management Program)	6,396	6,317	–1%
Subtotal, DOE (Select programs)	7,237	7,510	4%
Department of Defense (DOD):			
Cleanup	1,604	2,068	29%
Environmental Compliance/Pollution Prevention/Conservation	2,227	2,215	–1%
Subtotal, DOD (Select programs)	3,831	4,283	12%
National Oceanic and Atmospheric Administration (NOAA):			
Fisheries and Protected Species	232	569	145%
Ocean and Coastal Management	121	429	255%
Ocean and Atmospheric Research	202	345	71%
Subtotal, NOAA (Select programs)	555	1,343	142%
Partnership for a New Generation of Vehicles (DOE, DOC, NSF, EPA, DOT)	.....	**236**	**NA**
U.S. Global Change Research (NASA, DOE, NSF, DOC, USDA, others)	**1,323**	**1,700**	**28%**
GLOBE—Global Environmental Education (NOAA, NASA, EPA, NSF)	.....	**11**	**NA**
Montreal Protocol (State, EPA)	**25**	**38**	**52%**
Global Environment Facility (Treasury)	.....	**108**	**NA**
Multilateral and Bilateral Assistance (International Programs/AID)	**329**	**334**	**2%**
Total[3]	**31,226**	**42,322**	**36%**

NA = Not applicable.

[1] Includes funding (i.e., coastal management assistance) that is not in the new conservation spending category.

[2] Includes funding for the Conservation Reserve Program (CRP).

[3] Total includes mandatory spending. Total adjusted to eliminate double counts.

Note: Agency abbreviations not explained above: AID (Agency for International Development), Corps (Army Corps of Engineers), DOC (Department of Commerce), DOE (Department of Energy), EX-IM (Export-Import Bank), HUD (Department of Housing and Urban Development), NASA (National Aeronautics and Space Administration), NSF (National Science Foundation), State (Department of State), and TDA (Trade and Development Agency, International Assistance Programs).

increase of $7.4 billion, or 34 percent, over the $21.4 billion spent in 1993.

Conservation and Land Management

Lands Legacy: In 1993, the effect of development and urban sprawl on parks, fragile coastal habitat, and open spaces was not as widely understood as it is today. In some areas, uncontrolled growth was undermining people's quality of life by fragmenting the parks and forests that provide outdoor recreation and threatening the ecosystems that provide habitat for wildlife and endangered species.

Over the past eight years, the Clinton-Gore Administration forged a consensus in support of reliable funding for conservation programs that temper the adverse environmental effects of rapid development. In 1999, the President announced his Lands Legacy Initiative, which would double conservation funding and provide dedicated, protected funding for: (1) land acquisition in national parks, forests, refuges, and other public lands; (2) grants to States and local communities to restore urban parks and forests, protect wildlife habitat, and plan for smart growth; and, (3) protection of marine sanctuaries, estuaries, and coastal areas. This led to the enactment in October 2000 of a new Conservation spending category under the Budget Enforcement Act that, from 2002 through 2006, will set aside about $2 billion annually to be used only for specific conservation, preservation, and related programs. This category dedicates and protects funding to maintain and build upon current efforts preserving both the great places of this Nation and the green spaces of local communities.

The conservation investments in this category include funding for 25 distinct programs in six bureaus within the Departments of Agriculture (USDA), Commerce (DOC), and the Interior (DOI). The protected funding is allocated among six subcategories, plus an unallocated amount available to all subcategories. Actual funding levels for each program will be determined through the annual appropriations process. Table 6–3 shows subcategory allocations for 2002, plus the equivalent funding levels in prior years. The total amount of protected funding will increase each year, up to $2.4 billion in 2006.

Forest Planning Improvements: The Administration made improved multiple-use forest planning one of its first and highest priorities for the USDA's Forest Service. In April 1993, President Clinton convened a Forest Conference in Portland, Oregon, to bring together scientists, the forest products industry, environmental groups, Indian Tribes, and other concerned citizens to discuss issues surrounding the management of Federal lands in the Pacific Northwest and northern California. In 1991, the Forest Service had been blocked by a court injunction from issuing new timber sales in this area because these sales threatened the habitat of the northern spotted owl.

Table 6–3. Lands Legacy [1]
(Budget authority, in millions of dollars)

Subcategory	Actual		2001 Enacted	Estimate	
	1993	2000		2002	2006 [2]
Land and Water Conservation Fund (LWCF)	283	467	545	540	
State and Other Conservation Programs	26	68	270	300	
Urban and Historic Preservation	71	113	166	160	
Federal Deferred Maintenance—new funds	.....	.....	150	150	
Payments in Lieu of Taxes (PILT)—new funds	.....	.....	50	50	
NOAA/DOC Coastal Assistance	45	161	283	440	
Unallocated	.....	.....	.....	120	
Total	**425**	**809**	**1,464**	**1,760**	**2,400**

[1] Only includes amounts in the new Conservation spending category.

[2] Total amounts increase each year up to $2.4 billion in 2006. Actual funding levels for each subcategory for 2003–2006 will be determined through the annual appropriations process.

Working with all interested parties, the Forest Service issued standards one year later that broke the impasse by allowing timber sales and protecting key watersheds and valuable old-growth timber ecosystems. This difficult but successful process demonstrated again that economic and environmental interests are not mutually exclusive, and can be brought together through forest plans that support the multiple uses for which national forests were created.

This high standard was expanded and solidified in the new forest land and resource management planning regulation that was completed in October 2000. It replaced a 1982 regulation that emphasized timber production targets. In order to manage multiple uses in a forest, each national forest develops a comprehensive plan, incorporating substantial public involvement and sound science, to guide future forest management. National forests need to revise their forest plans to address new information, changed conditions, and/or new issues or trends. The forest plans cover the permitted uses on the national forest lands, including recreation uses, concession opportunities, timberland suitability, and off-road vehicle access. The new rule, emphasizing ecological sustainability, will better protect the environment, improve public participation in forest activities, and integrate science more effectively into Forest Service decisions.

Reform of Payments to States: Because Federal lands result in a reduction to a county's property tax base, the Federal Government returns a percentage of revenues generated from those lands, some of which are provided from timber sales, to the States to fund county schools and road maintenance. The need to address environmental concerns on Federal lands, however, has caused a reduction in timber sales over the last 10 years and a corresponding reduction in the Federal payments. To offset the fiscal impact of this reduction in Federal payments, the Administration proposed legislation that would provide for permanent, stable payments to States, made directly from the Treasury. These payments would be greater than the current payments and, importantly, sever the link between funding needs for county education and road maintenance from timber sales.

In November 2000, President Clinton signed the Secure Rural Schools and Community Self-Determination Act. This law will stabilize the payments to States and counties at historically high levels through 2006—increasing payments over five years by almost $1 billion. The law also creates citizen advisory committees, and gives local communities the opportunity to fund environmental restoration projects on Federal and non-Federal lands for activities such as salmon habitat restoration or road maintenance projects.

Roadless Conservation Policy: Through comprehensive rulemaking accompanied by an environmental impact statement, the Administration established a policy to prohibit most road construction and reconstruction, as well as timber harvesting (except as needed for stewardship purposes) in inventoried roadless areas of the National Forest System. The Final Environmental Impact Statement estimated that almost 60 million acres would be protected. In developing the roadless plan, the Forest Service sought extensive public input, holding over 600 public meetings across the Nation. Hundreds of thousands of people participated in this public process, generating over one million comments. Roadless areas provide the large, relatively unbroken blocks of undisturbed lands that are critical to a variety of terrestrial and aquatic wildlife and plants, including hundreds of threatened, endangered, and sensitive species. Many inventoried roadless areas function as biological reserves and refuges for these species, and play a key role in maintaining native plant and animal biological diversity. If the Forest Service had not acted to protect these areas, there would have been an increased loss of biodiversity, due to timber harvest, road-related fragmentation, and invasion by non-native species.

Increased Agricultural Conservation: Fifty percent of the continental United States is crop, pasture, and rangeland, and this land is managed by two percent of the population who are the Nation's farmers and ranchers. USDA's conservation programs provide farmers and ranchers with financial and technical assistance to implement best management practices that protect the environment while sustaining agricultural productivity and boosting farm income. In response to growing natural resource concerns, USDA, during this

Administration, expanded its conservation mission beyond its original focus of preventing soil erosion and now provides assistance for a wide range of activities such as wetlands restoration, wildlife habitat improvement, and farmland protection. The Administration strongly supported conservation programs as a way to help farmers and ranchers that were facing economic hardship while providing environmental benefits to all Americans.

USDA conservation programs restore more of our Nation's wetlands than any other Federal program, and were an important part of the Administration's efforts to develop strong and consistent Federal wetlands policies and initiatives. USDA's largest wetlands program is the Wetlands Reserve Program (WRP), which removes agricultural wetlands from production through permanent or long-term easements and restores their natural hydrology. From 1993 to 2000, over 880,000 acres were enrolled in WRP, leaving only approximately 40,000 acres available under its 975,000 acre cumulative enrollment cap in 2001. However, in 2000, the Administration persuaded the Congress to increase the cap by 100,000 acres, extending WRP for at least one more year.

USDA's Conservation Reserve Program (CRP), authorized to enroll 36.4 million acres, is the Nation's largest private lands environmental program. It provides farmers with annual rental payments in exchange for removing land from production for 10–15 years and restoring natural vegetative cover. The Administration significantly improved this popular program by strengthening the Environmental Benefits Index used to determine eligibility and changing the way payment rates were determined. As a result, the environmental quality of enrolled acres has increased since 1993, resulting in greater natural resource protection, and taxpayers have saved hundreds of millions of dollars through the use of more accurate land rental rates based on different soil types.

USDA conservation programs also made up a key component of President Clinton's Clean Water Action Plan (CWAP), which provided a blueprint for restoring and protecting the Nation's waterways. As part of the CWAP:

- USDA jointly issued with EPA in March 1999 a Unified Strategy for Animal Feeding Operations, which called for all animal feeding operations (AFOs) to voluntarily implement comprehensive nutrient management plans (CNMPs) by 2009 to reduce polluted runoff. In support of this guidance and to help producers develop CNMPs, the Administration sought and obtained additional AFO technical assistance funds. As a result, USDA was able to steadily increase technical assistance funding for AFOs from $37 million in 1999 to $75 million enacted for 2001.
- USDA aggressively promoted Conservation Reserve Enhancement Program (CREP) agreements with States. CREP agreements combine Federal CRP funds with State funds to remove environmentally sensitive areas from production for at least 10 years and restore natural habitat. Currently, 13 States have CREP agreements with USDA. The New York agreement, which totals $11 million ($8 million Federal/$3 million State), targets the Catskill and Delaware River watersheds that supply New York City's drinking water. It is estimated the agreement will reduce erosion in these watersheds by 36,000 tons of soil per year, allowing New York City to avoid constructing a $6 billion drinking water filtration plant, while also improving habitat for endangered fish and wildlife.

Everglades Restoration: This Administration provided an unprecedented level of funding to restore the Everglades, which supports 68 threatened and endangered species, and protects the water supply and bolsters the economy of south Florida. Since 1993, the Administration directed over $1.7 billion to land acquisition, water projects, and scientific research for Everglades restoration. Of this total, over $500 million funded land acquisitions to help preserve the Everglades in perpetuity. Many of these funds resulted from the Vice President's 1996 Everglades restoration plan, which proposed $100 million annually over four years for land acquisition.

In 1999, the Vice President presented to the Congress the Administration's long-term Everglades restoration plan. Developed by

private, corporate, and governmental stakeholders, it would increase water storage for environmental and urban water supplies, enhance natural water flows to the Everglades, and improve water quality. This Administration secured authorization of the first $1.4 billion in projects for this plan in November 2000. The Federal Government and Florida will each pay half of the cost of this plan, estimated at $7.8 billion over the next 35 years.

Wetlands Protection: The Administration achieved major successes in protecting the Nation's wetlands. Since 1993, Federal policies and programs protected wetlands by expanding technical and financial assistance to private landowners to enhance their land and water management practices; permitting and regulating developments affecting wetlands and our Nation's waters; restoring and creating wetlands; acquiring valuable wetlands from willing sellers; and educating the public about the benefits of wetlands. According to the Interior Department, these efforts contributed to an 80-percent decrease in the annual wetland loss rate—only 58,500 acres were lost on average from 1986–1997, down significantly from the average annual loss of 290,000 acres in the previous 10 years. This is the largest decrease in the annual wetland loss rate since the Federal Government began compiling the data in the 1950s. Federal activities included in this effort to protect wetlands are the Interior Department's Coastal and Partnership programs and its North American Waterfowl Management Plan; the Agriculture Department's Swampbuster and Wetlands and Conservation Reserve programs; the Army Corps of Engineers and the Environmental Protection Agency's Clean Water Act wetlands programs; the Administration's Clean Water Action Plan; and, various additions to national forests, parks, monuments, wildlife refuges, and other public lands.

California Bay-Delta Management: In August 2000, after more than five years of work, Federal and State policy officials signed a Record of Decision finalizing the long-term $8.7 billion CALFED plan for the California Bay-Delta. This CALFED plan marks the Administration's successful creation, in cooperation with the State of California and other stakeholders, of a blueprint for effective management of the Bay-Delta and its water resources, designed to end sixty years of chronic conflict in the region. The 740,000-acre Bay-Delta ecosystem not only serves as habitat to more than 750 plant and animal species, but also supplies drinking water for two-thirds of all Californians and irrigation water for over seven million acres of the most highly productive agricultural land in the world. The CALFED plan will provide better water quality for all beneficial uses; enhance and increase habitat and ecological functions in the Bay-Delta to support plant and animal species; improve water supply reliability for agricultural, urban and environmental interests; and reduce the risk to economic activities, water supply, infrastructure, and the ecosystem from catastrophic breaching of Delta levees. To support the Bay-Delta during development of the long-term plan, the Administration also provided from 1998 to 2000 a total of $190 million in funding to support initial Bay-Delta ecosystem restoration activities, and $30 million for related CALFED efforts.

Preservation of Our Natural and Cultural Treasures: For the past eight years, this Administration took significant measures to conserve the Nation's natural and cultural heritage. Just as we now are grateful for the far-sighted efforts in the 19th and early 20th centuries to protect Yellowstone and Yosemite, so will Americans in the 21st Century appreciate the measures taken by the Administration to conserve our natural and cultural treasures. President Clinton protected more land in the lower 48 States under the 1906 Antiquities Act—over five million acres—than any other President, designating new national monuments and expanding others. Areas protected include: Grand Staircase-Escalante National Monument in Utah, consisting of almost 1.9 million acres of spectacular red rock canyon lands and artifacts from three cultures; Giant Sequoia National Monument in California, a 328,000 acre monument characterized by magnificent groves of towering giant sequoias (many as old as 3,200 years) interspersed among bold granitic domes, spires, and plunging gorges; Grand Canyon-Parashant National Monument in Arizona, a one million acre protection area situated on the Colorado Plateau along the North Rim of the Grand Canyon; and California Coastal National

Monument, made up of thousands of islands, rocks, exposed reefs, and pinnacles along the entire coast of California.

The Administration also worked to protect other natural treasures, such as the majestic California Desert, and has consistently supported legislation to protect other natural areas. Most recently, in 2000, the President signed legislation establishing the Colorado Canyons National Conservation Area in Colorado, the Santa Rosa/San Jacinto Mountains National Monument in California, and a new cooperative management and protection area for Steens Mountain in Oregon.

Baca Ranch: In July 2000, President Clinton signed the Valles Caldera Preservation Act authorizing the purchase of the Baca Ranch in New Mexico, a 95,000-acre swath of forested mountains and grassy valleys that includes the Valles Caldera, a one million-year-old collapsed volcano 14 miles in diameter. The purchase of this property was completed later that year, and title has now transferred to the Forest Service. Located in the Jemez Mountains region west of Santa Fe, the Ranch also includes one of the Nation's largest wild elk herds, and its acquisition will protect important resources, and will offer unparalleled recreation opportunities for the region and all Americans.

Headwaters Forest: During 1998, the Administration sought, and the Congress provided, $250 million to acquire the Headwaters Forest in northern California, the largest privately owned stand of ancient redwoods. As part of the acquisition, the Administration ensured that Headwaters and its threatened and endangered inhabitant species were protected. To promote collaborative species protection, the Administration developed a scientifically sound habitat conservation plan. The Federal Government and the State of California jointly acquired Headwaters in 1999.

Yellowstone Park: To protect Yellowstone National Park, the Administration agreed in August 1996 to acquire Crown Butte, Inc.'s interest in the New World Mine in Montana, the potential development of which posed a severe environmental threat to Yellowstone's unique landscape and wildlife resources. In 1998, the Administration sought, and Congress provided, $65 million to proceed with this agreement, which will preserve one of the crown jewels of the National Park System. Crown Butte also dedicated $22 million to clean up contamination at the site from earlier mining activities. The Administration worked with Crown Butte and other parties to complete the acquisition in 1999.

Millennium Initiative to Save America's Treasures: The First Lady led an Administration initiative to commemorate the Millennium by awarding grants through the National Park Service to support the preservation of the many historic sites and cultural artifacts that are also America's treasures. The Save America's Treasures program received $95 million over three years to provide dollar-for-dollar matching grants for Federal, State, local, and private entities to restore and preserve cultural artifacts, documents, collections, and historic structures across the Nation. Since 1999, over 180 projects have been identified, with others yet to be selected. Projects include restoring the Star Spangled Banner at the Smithsonian in Washington, D.C., preserving archeological sites at Mesa Verde in Colorado, and stabilizing buildings at Angel Island Immigration Station in San Francisco.

Management of the Impacts of Wildfires on Communities and the Environment: The devastating wildfires of 2000 highlighted the need to reassess Federal efforts in addressing the impacts of wildfires on communities and the environment. Though wildfires are part of a natural process essential to the maintenance of many ecosystems, intensive efforts to suppress all wildfires over the last century have resulted in the buildup of fire fuels in many areas, and in unnaturally intense fires that spread rapidly, burn more completely, and are often extremely difficult to suppress. Such fires are more hazardous to communities and the environment. Through a 55-percent funding increase (to a total $2.9 billion for 2001) the Administration took immediate steps to address the consequences of fires and problems that were highlighted during the 2000 fire season. Enacted funding increases totaling $1.6 billion included: $393 million for preparedness activities to ensure that the Federal wildland firefighting agencies have the necessary staff and equipment for future fire seasons; $281 million for fire fuels reduction activities primarily to alleviate immediate threats to

communities in the wildland-urban interface; and $227 million for the restoration of areas burned by the 2000 fires.

Promotion of Responsible Mining on the Public Lands: In 2000, the Department of the Interior's Bureau of Land Management (BLM) completed a multi-year process of revising the agency's "3809" surface mining regulations that govern hardrock mining on public lands. The scope and technology of hardrock mining operations on Federal lands have changed dramatically since 1980, when the "3809" regulations were originally published. The final regulations enable the agency to fulfill its duty under Federal law to prevent "unnecessary or undue degradation" of BLM lands from hardrock mining, thereby protecting public health, public land resources, and the environment. The rules will allow BLM to reject plans of operation for mines that would cause "substantial irreparable harm" to significant scientific, cultural, or environmental resources if the damage cannot be effectively mitigated. The regulations also strengthen bonding requirements for mining operators to ensure that these operators, rather than the Nation's taxpayers, bear the costs of reclaiming mined lands. In addition, the new regulations specifically address both cyanide leaching practices and acid mine drainage.

The Endangered Species Act (ESA)—Making It Work: Administration reforms have increased ESA flexibility, furthering the Act's ability to protect at-risk species and to reconcile species conservation with the needs of landowners. These reforms include voluntary conservation agreements (Candidate Conservation Agreement—CCAs) between Interior's Fish and Wildlife Service and private or public parties to implement conservation measures and monitor activities, preventing the need to add species to the Endangered Species list. In 2000, the Fish and Wildlife Service entered into 20 CCAs with private landowners or State and local governments that, together with other efforts, prevented six species from being listed. Since 1994, the Service has entered into more than 90 CCAs. In addition, early intervention processes implemented by the Department of Commerce's National Marine Fisheries Service to identify species before they become endangered effectively eliminated the need to list five threatened aquatic species.

The Administration also significantly expanded the use of Habitat Conservation Plans (HCPs) to address potential conflicts between development and protection of listed species. HCPs give the private sector and State, local, and Tribal governments the flexibility to propose solutions that permit the protection of endangered species and conservation of habitat, while allowing for development. By the end of 2001, HCPs will protect over 40 million acres and an estimated 435 species.

The Administration was successful in defeating legislative riders that sought to weaken the Endangered Species Act. For example, the Administration worked with the Congress to allow the preservation of sea lions off the coast of Alaska, and the re-introduction of grizzly bears into the Bitterroot Mountains of Montana and Idaho. The Administration also worked with affected stakeholders to ensure that necessary changes to the operation of the Missouri River to protect listed species, including the pallid sturgeon, the lest tern and the piping plover, were allowed to go forward.

National Estuarine Research Reserves—Protecting and Restoring our Nation's Estuaries: Since 1993, Commerce's National Oceanic and Atmospheric Administration (NOAA) and its State partners increased the number of National Estuarine Research Reserves from 22 reserves in 19 States, to 25 reserves in 20 States, with two pending to be established in 2001. This expansion more than doubled the protected fragile estuarine habitat to over one million acres. Estuaries are essential to our environment, serving as filters where fresh water meets the ocean to help maintain the health of our coasts.

Protection of National Marine Sanctuaries: In 1993, 11 National Marine Sanctuaries protected 14,733 square nautical miles of valuable cultural and natural resources along our Nation's coasts. Today, as a result of this Administration's investments to preserve these unique and important sites, there are now 13 Marine Sanctuaries covering 18,000 square nautical miles of sensitive underwater habitat and submerged cultural resources, including the newest sanctuary in the

Great Lakes. Other sanctuaries protect whales off the coast of Hawaii, and splendid coral reefs around the Florida Keys and American Samoa. In December 2000, the President designated the first ever Northwestern Hawaiian Islands Coral Reef Reserve protecting almost 100,000 square nautical miles.

Increased Participation in Coastal Zone Management: The number of States participating in the Coastal Zone Management program expanded from 29 in 1993 to 33 of 35 possible participants today. These States, working in partnership with NOAA, developed voluntary, comprehensive coastal management programs to keep U.S. coastlines healthy and productive. While no States had approved Coastal Zone Management Non-point Pollution Control programs in 1993, all of the 33 States now have fully or conditionally approved Non-point Pollution Control Programs and the rest have conditionally approved programs to reduce pollution from runoff, one of the greatest remaining threats to our Nation's water quality.

Restoration of Ocean Resources: The National Oceans Conference, held in June 1998, drew together for the first time a full array of ocean interests, including government, industry, science, and conservation. The Conference resulted in new initiatives, including steps to restore coastal reefs, rebuild marine fisheries, preserve freedom of the seas, provide public access to military data and technology, enhance the competitiveness of America's ports, and protect our National marine sanctuaries from oil drilling. A follow-up report to the President and Vice President on the National Oceans Conference was issued in September 1999, which highlighted the importance of preserving the oceans' complex and delicate balances. In keeping with the recommendations of the report, the Executive Office of the President convened the Ocean Report Task Force to accomplish key, specific oceans recommendations. The work of this task force will be concluded shortly, and has been very successful. Accomplishments include: gear restrictions protecting northern right whales; expanded enforcement capabilities for environmental ocean crime detection; greater protection for sea turtles; and increased funding for marine activities.

Scientific Support for Natural Resources: The management of land and water, and natural resource protection must be based on sound and objective natural resource science.

U.S. Geological Survey (USGS): The Department of the Interior's USGS provides research and scientific information to land managers and the public to better understand ecosystems and species, land and water resources, and natural hazards. Over the past eight years, USGS became more responsive to the Nation's pressing and complex natural resource issues by delivering scientific analysis, products, and services in a useful, usable format to land managers, other decision-makers, and the public. USGS adopted a customer-driven focus to enhance the relevance and usefulness of its scientific information, and led the Government in the standardization of scientific information and digital data through major infrastructure efforts such as the National Biological Information Infrastructure. For 2001, USGS also received increased funding to expand State partnerships to acquire and deliver scientific information for decision-making. Examples of significant USGS accomplishments since 1993 include:

- *Real-time Data Availability*—USGS operates national networks of stream gauges and seismometers to monitor flooding and earthquake activity. USGS accelerated the development of real-time hazards information delivery through significant investments to modernize and improve these networks and other hazard networks and provide information in real-time to the public.
- *Assessment of the Nation's Biological Resources at Century End*— In June 1999, USGS released the first large-scale assessment of the Nation's natural resources in a two-volume report, Status and Trends of the Nation's Biological Resources. This report synthesizes current information within a historical perspective to document how the Nation's biological resources are changing.

National Oceanic and Atmospheric Administration (NOAA): The Administration's support for the modernization of NOAA's National Weather Service (NWS) and for the data

collected by NOAA's National Environmental Satellite and Data Information Service greatly improved weather forecasts and flood and tornado warnings. Support to its Office of Oceanic and Atmospheric Research provided advances that now enable NOAA to predict El Nino events with a level of skill and enough lead time that the national and international economies can save billions of dollars a year in avoidable costs.

The benefits of the NWS modernization and associated restructuring are dramatic and have set the standard for weather agencies worldwide. NWS's modernization increased warning lead time for flash floods from 22 minutes in 1993 to an estimated 55 minutes in 2000, and the accuracy of flash flood warning from 71 percent in 1993 to an estimated 86 percent in 2000; modernization also increased the lead time for tornado warnings by 100 percent and the accuracy of tornado warnings by 62 percent. The extra time and accuracy save lives. In addition, three-to-four day weather forecasts are as accurate as the two-day forecasts of 15 years ago.

In 1993, NOAA identified 43,000 square nautical miles of waters that were in critical need of new hydrographic surveys around major ports and harbors, as well as previously unsurveyed areas of Alaska. With 98 percent of cargo by weight coming into U.S. ports, over half of it hazardous material, and ever larger vessels pushing the limits of dredged channels, the mariners' need for accurate, updated nautical charts was growing every day. While NOAA estimated it would take over 40 years to eliminate this critical survey backlog, today, that estimate is cut in half, thanks to increased resources, advances in technology, and successful partnerships with the private sector.

Recreational Resources

Enhanced Stewardship: This Administration took key steps to improve our investments in national parks, wildlife refuges, national forests, and other public lands, so that future generations will have the same opportunity to enjoy these national treasures that we have today. Discretionary funding to maintain and restore facilities on these lands has grown by 50 percent, from $1.0 billion in 1993 to over $1.5 billion in 2001. Federal land management agencies also now have temporary authority to collect expanded recreation and user fees, and reinvest the $200 million in annual fee revenue in visitor facilities and services. Although this authority is not yet permanent, the experience over the past few years has shown that the public is willing to pay fees when they understand the funds will be used to support the parks, forests, and refuges they are visiting.

In addition to increased funding, the Administration initiated important management reforms to improve how these funds are spent. The Department of the Interior's National Park Service, Fish and Wildlife Service, and BLM have each begun extensive facility condition assessments to determine more accurately where maintenance has been deferred. Facility maintenance information systems are being implemented to identify and track specific maintenance and construction projects. Each bureau ranks its projects to prepare a five-year list of maintenance and construction priorities, so that available funds may be targeted at the most pressing needs. Other reforms include: the development of capital asset plans that identify up-front a project's cost, schedule, and performance goals; a restructuring of the National Park Service construction planning process at its Denver (Colorado) Service Center; and an increased reliance on standardized designs and private architectural firms. The Administration also led the successful effort to improve management of the National Wildlife Refuge System by establishing wildlife conservation as the dominant refuge goal and compatible wildlife-dependent recreation (including hunting, fishing, wildlife observation and photography, and environmental education and interpretation) as priority public uses.

Pollution Control and Abatement

The Federal Government helps achieve the Nation's pollution control goals by: (1) taking direct action; (2) funding actions by State, local, and Tribal governments; and, (3) implementing an environmental regulatory system. The Environmental Protection Agency's (EPA) $7.8 billion in discretionary funds, a $0.9 billion or 13-percent increase over 1993,

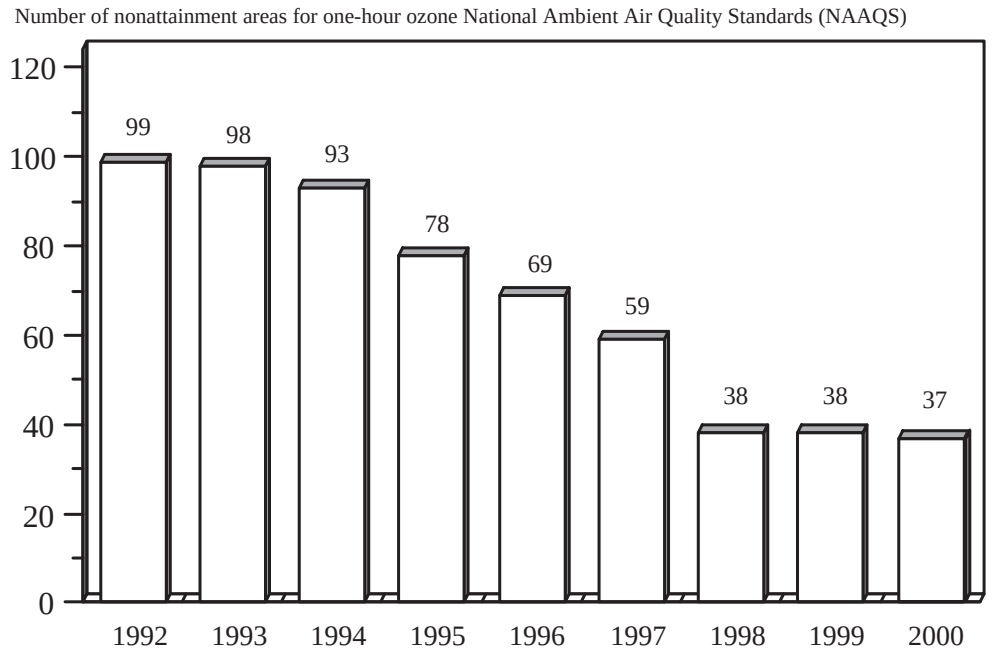
finances most activities in this area. EPA's discretionary funds have three major components—the agency's operating program, Superfund, and water infrastructure financing.

EPA's $3.9 billion operating program provides the Federal funding to implement most Federal pollution control laws, including the Clean Air, Clean Water, Resource Conservation and Recovery, Safe Drinking Water, Toxic Substances Control, and the Food Quality Protection Acts. Spending for the operating program, which grew 40 percent during this Administration, represents the backbone of the Nation's efforts to protect public health and the environment.

Reduction of Air Pollution: Under the Clean Air Act, EPA works to make the air clean and healthy to breathe by setting standards for ambient air quality, toxic air pollutant emissions, new pollution sources, and mobile sources. During the last eight years, the Administration took major steps to improve the quality of the air we breathe, and helped reduce the number of metropolitan areas not in compliance with the current Federal ozone standard from 98 metropolitan areas in 1993 to 37 such areas today (see Chart 6–1). EPA also promulgated new more health-protective air quality standards for ozone and fine particulate matter that have yet to take effect.

Late in 1999, EPA established new rules for the sulfur content of gasoline and for tailpipe emissions from new cars and light duty trucks that will result in vehicles that are 77 to 95 percent cleaner than those of today. These measures, to be phased in from 2004 to 2009, may prevent thousands of premature deaths, tens of thousands of cases of respiratory illness, and hundreds of thousands of lost work days. Late in 2000, EPA finalized similar rules for sulfur content in diesel fuel and for heavy duty truck engine emissions that will also have a major impact in protecting public health. In past years, EPA has also issued rules

Chart 6-1. Air Quality Trends



to reduce toxic air pollution from chemical plants by 90 percent, and put in place a program to clear the haze and restore pristine skies to our national parks.

Water Quality Improvement: Under the Clean Water Act, EPA works to conserve and enhance the ecological health of the Nation's waters, through regulation of point source discharges and through multi-agency initiatives such as the President's Clean Water Action Plan (CWAP). The CWAP focuses on three remaining challenges for restoring and protecting the 40 percent of the Nation's waterways not attaining water quality standards—preventing polluted runoff, protecting public health, and ensuring community-based watershed management. EPA funding for its programs included in the CWAP is $712 million in 2001, an increase of 67 percent since 1993. A key component of this total is the $238 million for EPA's non-point source grant program to States and Tribes, which has grown more than 375 percent since 1993. Non-point source pollution is the most significant remaining contribution to water pollution.

Provision of Safe Drinking Water: Today, America's drinking water is significantly safer than eight years ago. Administration efforts to strengthen drinking water safety, including amending the Safe Drinking Water Act in partnership with the Congress, mean that 89 percent of Americans (as of 1999) get tap water from drinking water systems that meet the tough Federal standards in effect as of 1994, an increase of six percentage points since 1994. The Administration also issued regulations requiring water systems to improve filtration and monitoring to protect against contamination by harmful microbes, and issued annual reports to their customers on the safety of their drinking water; and it proposed tough new standards for high risk contaminants, such as arsenic and radon.

Reform of Food Quality Protection: In 1996, following through on his 1993 proposal, President Clinton signed legislation to revolutionize the way our food supply is protected from harmful pesticides. The law overhauls the system that kept harmful pesticides on the market too long and safer alternatives off the market, and includes provisions to better protect children from pesticide risks. So far, EPA has reassessed 3,551 of the 9,721 existing pesticide tolerances (i.e. allowable residue on food) to ensure that they meet the statutory standard of "reasonable certainty of no harm", and has worked with pesticide manufacturers to phase out uses of some of the most high risk pesticides, including methyl parathion, azinphos-methyl, chlorpyrifos, and diazinon.

Citizen Empowerment: Requiring industries to share information about chemicals released into the air and water helps empower citizens to understand the environment around their homes, schools, and work places and address problems as necessary, creating a powerful incentive for industry to pollute less. In the decade since the public's right to know about chemical releases became law, industry's toxic pollution has fallen nearly 50 percent. The Administration expanded the public's right to know by doubling the number of chemicals subject to reporting requirements and by increasing by 30 percent the number of facilities that must report. In addition, President Clinton required the Federal Government to begin reporting its chemical releases in 1994, and such releases have been reduced by 60 percent.

The Administration, in 1998, also established the Chemical Right to Know Initiative, which includes a highly successful, innovative, voluntary partnership with industry to develop and provide the public with basic health data on chemicals released into the environment in high volume. In addition, EPA greatly expanded the amount of environmental data available to the public through an initiative to provide the Nation's 86 largest metropolitan areas with real-time environmental information.

Proper Management of Wastes: Under the Resource Conservation and Recovery Act, EPA and authorized States prevent dangerous releases to the environment of hazardous, industrial nonhazardous, and municipal solid wastes by requiring proper facility management and cleanup of environmental contamination at those sites. As of the end of 2000, 62 percent of the Nation's 2,900 hazardous waste management facilities have approved controls in place to prevent dangerous releases to air, soil, and groundwater.

EPA's underground storage tank (UST) program seeks to prevent, detect, and correct leaks from USTs containing petroleum and hazardous substances. Regulations issued in 1988 required that substandard USTs (lacking spill, overfill, and/or corrosion protection) be upgraded, replaced or closed by December 22, 1998. By the end of 2000, 86 percent (an estimated 614,000) of active USTs will be in compliance with these requirements, which improves upon the 65 percent (approximately 554,000) of then-active USTs in compliance as of the December 22, 1998, deadline. Over the past decade, more than 1.4 million substandard USTs have been permanently closed.

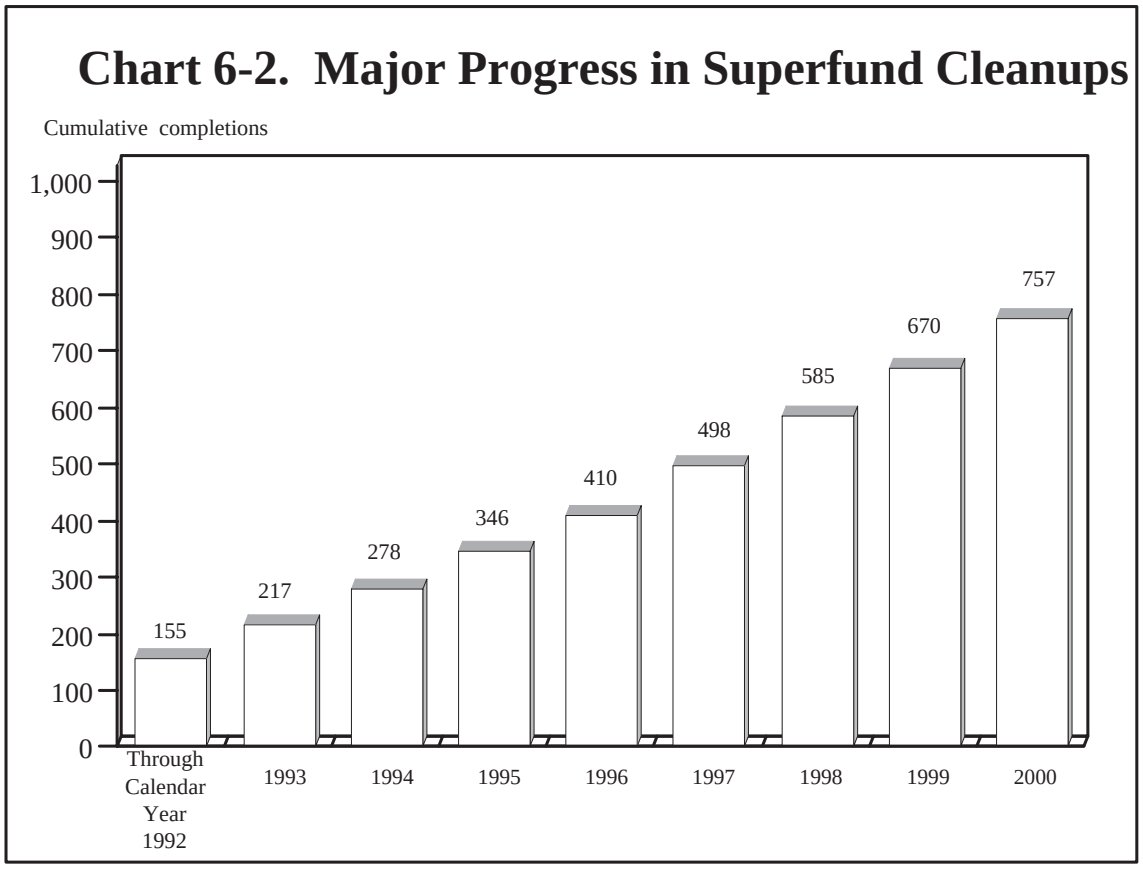
Climate Change: In October 1997, President Clinton announced immediate actions to begin addressing the problem of global climate change, and included the Climate Change Technology Initiative (CCTI) in the 1999 Budget. In 2001, EPA will devote $123 million to CCTI, $115 million more than related programs in 1993, focused on the deployment of under-utilized but existing technologies that reduce greenhouse gas emissions. By the end of 2000, greenhouse gas emissions are expected to have been reduced from projected levels by approximately 58 million metric tons of carbon equivalent per year through EPA partnerships with businesses, schools, State and local governments, and other organizations.

Accelerated Clean-up of Toxic Waste Sites: During this Administration, EPA's Superfund program to clean up abandoned hazardous waste sites became faster, fairer, and less expensive. At the end of 2000, a total of 757 Superfund sites had been cleaned up—602 of these cleanups completed since 1993, while only 155 of the sites were cleaned up during the previous 12 years (see Chart 6–2). EPA projects that two-thirds, or 900, of the Nation's worst toxic waste dumps will be cleaned up by the end of 2002. EPA's Superfund administrative reforms have been responsible for saving more than $1.4 billion in future costs by updating cleanup remedy decisions (to determine whether the same level of protection could be provided at lower cost) at more than 300 sites. The Agency also streamlined the liability allocation process to reach settlement with more than 21,000 small volume waste parties at Superfund sites.

Spearheaded by this Administration since 1993, EPA's brownfields program to clean up and redevelop lightly contaminated commercial and industrial sites has funded over 2,000 site assessments; generated 7,300 jobs, and leveraged $2.8 billion in cleanup and redevelopment funds. The brownfields tax incentive, enacted as part of the 1997 Taxpayer Relief Act and extended by the 1999 Tax Relief Extension Act, has leveraged additional private investment by allowing businesses to deduct certain cleanup costs on environmentally contaminated lands.

Support for Needed Infrastructure: In 1996, President Clinton signed into law his proposal for establishing a new Drinking Water State Revolving Fund (DWSRF), which would complement the existing Clean Water State Revolving Fund (CWSRF). EPA appropriations provide capitalization grants to State revolving funds, which make low-interest loans to municipalities to help pay for wastewater and drinking water treatment systems required by Federal law. DWSRF funding of $825 million and CWSRF funding of $1,350 million in 2001 kept the programs on track to achieve the Administration's goal of capitalizing these funds to the point where they provide a total of $2.5 billion in average annual assistance for the long term, even after Federal assistance ends. Funding provided during this Administration resulted in the CWSRF being capitalized at more than twice the authorized level for the program. Currently, 99 percent of the population served by community sewerage systems are served by facilities upgraded to meet secondary treatment or better, as required by the Clean Water Act.

Financial Assistance to Rural Communities: USDA provides financial assistance for safe drinking water and adequate wastewater treatment facilities to rural communities (under 10,000 people). USDA offers this grant and loan assistance at subsidized interest rates based on the community's income. Part of those funds go toward USDA's Water 2000 initiative to bring indoor plumbing and safe drinking water to under-served rural communities. Since 1994, USDA has invested almost $2.5 billion in loans and grants on high-priority Water 2000 projects nationwide.



Over the last eight years, the Administration successfully targeted USDA water and waste water treatment facility funds to underserved rural communities, leveraged resources from other public and private sources, and maintained the strong loan repayment record of the Water and Waste Disposal program. During this Administration, USDA financed 2,600 water and wastewater treatment facilities serving over 15 million rural residents. Of these, over 1,950 were Water 2000 projects.

Other Water Resources

The Federal Government builds and manages water projects for navigation, flood damage reduction, environmental purposes, irrigation and hydropower generation. The Army Corps of Engineers (DOD) operates nationwide, while the Department of the Interior's Bureau of Reclamation operates in the 17 Western States.

Army Corps of Engineers: This Administration's major accomplishments for the Army Corps of Engineers include:

- Increased funding of the Corps' environmental activities by over $400 million (100 percent) from 1993 to 2001, including significant funding increases for restoring endangered salmon on the Columbia and Snake Rivers (in Washington, Oregon, and Idaho) and to restore the Florida Everglades. The Administration also successfully fought off legislative riders proposed by the Congress that would have diminished the Corps' ability to comply with environmental laws, and secured authorization of its "Challenge 21" program for projects that combine flood damage reduction with environmental restoration of the river corridor.
- Secured funding to increase the competitiveness of the Nation's ports, including major efforts to deepen the ports of New

York/New Jersey; Los Angeles, California, and Baltimore, Maryland. The Administration's proposal to create a new Harbor Services Fund, which the Congress did not adopt, would have helped ensure a safe and economically competitive port system.

- Initiated construction of priority new projects needed for public health and safety, such as projects to provide increased flood protection to Grand Forks, North Dakota, following devastating floods in 1997, and to Sacramento, California.
- Improved the wetlands permit program significantly, including important changes to "nationwide" permits that will help minimize adverse effects of development on the aquatic environment, especially in environmentally sensitive areas.

Reinvention of the Bureau of Reclamation: Between 1993 and 2001, the Administration dramatically changed the primary focus of the Bureau of Reclamation from water resource "development" to water resource "management". Instead of focusing on engineering projects to harness the West's rivers and reclaim its arid lands, Reclamation now concentrates on managing existing water efficiently and on resolving water resource conflicts through cooperation among stakeholders. A major restructuring reduced Reclamation's workforce by about 2,000 employees (25 percent below 1993), and eliminated nearly 6,500 pages of regulatory provisions. At the same time, Reclamation continued to supply water and power efficiently throughout the West, generating more than 40 billion kilowatt hours of energy each year, delivering 10 trillion gallons of municipal, rural and industrial water to over 31 million people, and providing water to one out of every five Western farmers.

Resolution of Western U.S. Water Conflicts: This Administration worked to foster regional cooperation to resolve conflicts in several Western river basins. In the Lower Colorado River Basin, it took critical steps to allow Arizona, California, and Nevada to better utilize the limited amount of water available from the Colorado River. The Interior Department, working through the Bureau of Reclamation, completed the major water supply features of the Central Arizona Project and reached a conditional settlement of related repayment issues. Interior created a Federal/State program to help conserve over 100 threatened and endangered species from Lake Mead to the Mexican border. It also reached agreement with California on a framework plan to ensure that California moves towards living within its allocation of Colorado River water. In the Missouri River Basin, the Department of the Interior worked with the governors of Colorado, Nebraska, and Wyoming to develop the Platte River Cooperative Agreement, protecting species in the Middle Platte River while providing regulatory certainty to water and power interests. Additionally, Interior moved to resolve longstanding conflicts on water rights between Native American Tribes and U.S. entities. It advanced or finalized major Tribal water rights settlements for the Gila River Indian Community, the San Carlos Apache Tribe, and the Tohono O'odham Nation in Arizona; the Shivwits Paiute Band in Utah; the Ute Tribes in Colorado; and, the Chippewa Cree Tribe in Montana.