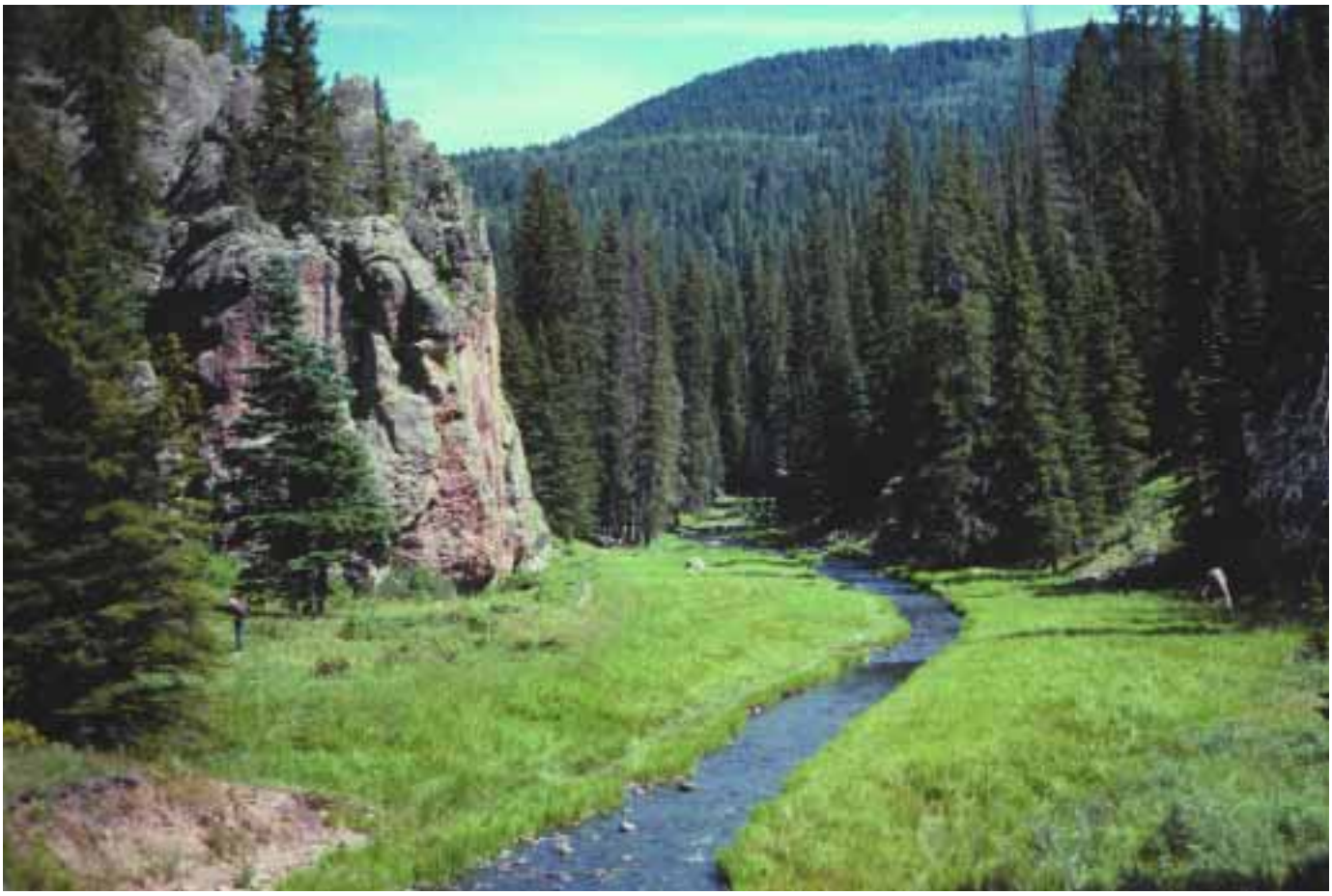
CHAPTER 10

Natural Resources and Environment



The Nation's capacity to produce healthy, sustainable forest resources, while maintaining favorable watershed and habitat conditions, increasingly depends on nonindustrial private forests. Owners of these lands control nearly 60 percent of the Nation's forests and supply nearly half of its forest products, but fall far short of their potential for producing wood, other forest products, or environmental benefits.

Forest Service

Mission

The Forest Service mission is "Caring for the Land and Serving People." The mission is further expressed in the Forest Service land ethic: "Promote the sustainability of ecosystems by ensuring their health, diversity, and productivity," which is coupled with the service ethic: "Work collaboratively and use appropriate scientific information in caring for the land and serving people."

The Forest Service, through ecosystem management, applies these land and service ethics. Ecosystem management is the integration of ecological, economic, and social factors in order to maintain and enhance the quality of the environment to meet current and future needs.

The four strategic goals of the Forest Service are to: (1) protect ecosystems, (2) restore deteriorated ecosystems, (3) provide multiple benefits for people within the capabilities of ecosystems, and (4) ensure organizational effectiveness.

The Forest Service's Natural Resource Agenda identifies four key areas of national focus. They are: watershed health and restoration, sustainable forest ecosystem management, forest roads management, and recreation enhancement.

Principal Laws

The Forest Service administers the lands and resources of the National Forest System (NFS) under the Organic Administration Act of 1897, the Multiple Use-Sustained Yield Act of 1960, and the National Forest Management Act of 1976.

The agency also conducts research, provides assistance to State and private landowners, assesses the Nation's natural resources, and provides international assistance and scientific exchanges. These activities are carried out under the Forest and Rangeland Renewable Resources Planning Act of 1974, the Renewable Resources Extension Act of 1978, the Forest and Rangeland Renewable Resources Research Act of 1978, the Cooperative Forestry Assistance Act of 1978, and the International Forestry Cooperation Act of 1990.

Organizational Structure

The Chief, the top administrative official of the Forest Service, reports to the Secretary of Agriculture through the Under Secretary for Natural Resources and Environment. The Forest Service typically is viewed as consisting of three major components: (1) the National Forest System (NFS), (2) State and Private Forestry (S&PF), and (3) Research and Development (R&D). However, the agency supports many other programs, such as International Programs and Job Corps Civilian Conservation Centers. The NFS is organized into a Deputy Area within the Washington Office, 9 regional offices, 155 national forests managed by 115 supervisors' offices, and approximately 570 ranger districts and 20 national grasslands.

The Forest Service manages the 192-million-acre NFS and supports multiple use; sustained yields of renewable resources such as water, livestock forage, wildfire, habitat, wood, and recreation; and integration of mineral resource programs and visual quality. The agency also mitigates, when appropriate and in a scientific manner, wildfires, epidemics of disease and insects, erosion, floods, water quality degradation, and air pollution.

The NFS provides many recreational activities for the public. In 2000, it hosted more than 209 million recreation visits, including 60 percent of the Nation's skiing and significant percentages of hiking, camping, hunting, fishing, and driving for pleasure. NFS takes care of 4,418 miles of the Wild and Scenic Rivers System; 412 units of the National Wilderness Preservation System, 133,000 miles of trails; more than 250,000 heritage sites; and over 23,000 campgrounds, picnic areas, and visitor facilities.

The National Forests and Grasslands support economic activity contributing $38 billion in total income to the national economy. The Forest Service administers many S&PF programs to provide technical and financial conservation assistance to State and private nonindustrial forest land. These programs serve as a link

among many public and private organizations and they help to promote the best use and conservation of America's natural resources on private lands. Wildland fire protection on private and public lands, Smokey Bear, forest health protection, and natural resource education are examples of S&PF programs. S&PF is organized into a Deputy Area within the Washington Office; it has an office in Newtown Square, PA, to work with States and landowners in the Northeastern United States, and has programs delivered from most NFS offices.

Forest Service Research & Development (R&D) is one of the world's leading forestry research organizations, conducting and sponsoring basic and applied scientific research. This research provides both credible and relevant knowledge about forests and rangelands and exciting new technologies that can be used to sustain the health, productivity, and diversity of private and public lands to meet the needs of present and future generations.

Forest Service Community-Based Partnerships

Over a century ago, public concern about adequate supplies of clean water contributed to the establishment of federally protected forest reserves. These reserves are now part of the USDA, Forest Service. In 1999, the Forest Service established an innovative approach to restoring watersheds through partnerships—community-based, large-scale watershed restoration projects.

Projects were competitively selected for supplemental funding at the national level because of their important location and purpose, collaborative relationships, feasibility, and precedent-setting approach to achieve long-term improvement of watershed conditions. The national office has invested over $70 million in these projects. And this was matched 2:1 by partner organizations that have contributed over $150 million. Work has focused on improving water quality, forest and range health, recovering threatened species; implementing the State and Private Forestry Action Strategy and the North American Waterfowl Management

Key Facts About the Forest Service:

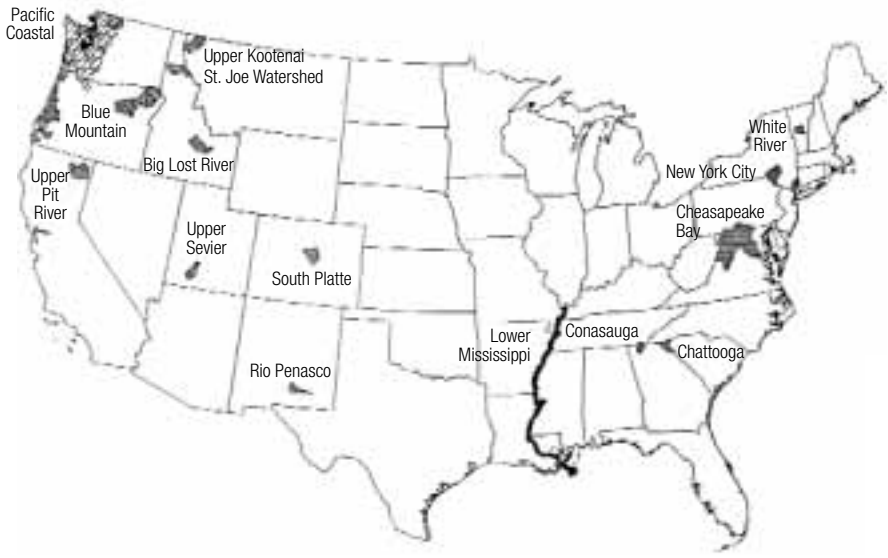
- The entire Nation has about 1.3 billion acres of forest and rangeland, under all ownerships.
- The entire Nation has 747.0 million acres of forest land area, not including rangeland, under all ownerships; the owners/managers of this forest land are as follows:
  - **Federal Government:** 246.7 million acres
  - **Forest Service:** 1,146.8 million acres
  - **Bureau of Land Management:** 48.3 million acres
  - **National Park Service, Department of Defense, Department of Energy, & other Federal:** 51.6 million acres
  - **Non-Federal total:** 500.2 million acres
  - **State:** 60.5 million acres
  - **9.9 million private landowners:** 362.8 million acres
  - **County and municipal:** 9.2 million acres
- There are 192.0 million acres of National Forest System land. This is 8.3 percent of the United States' land area, or about the size of Texas. The Forest Service manages:
  - **National Forests:** 187.6 million acres
  - **National Grasslands:** 3.8 million acres
  - **National Primitive Areas:** 173,762 acres
  - **National Scenic-Research Areas:** 6,630 acres
  - **National Wild & Scenic Rivers:** 4,418 miles—95 rivers
  - **National Recreation Areas:** 2.9 million acres
  - **National Monument Areas:** 3.3 million acres
  - **National Historic Areas:** 6,540 acres
  - **Congressionally Designated Wilderness:** 34.7million acres
- There are 88 wilderness areas designated Class 1 for air quality protection totaling 15 million acres.
- The marginal value of the water from national forest lands is over $3.7 billion per year.
- Approximately 14 percent of the Nation's water runoff (about 190 million acre-feet annually) comes from national forest lands (excluding Alaska).
- The Forest Service manages 155 national forests for multiple uses.
- Miles of property boundary line: 249,000
- Number of property corners: approximately 1 million
- The national forest trail system is the largest in the Nation, with 133,000 miles of trails for hiking, riding, cross-country skiing, snowmobiling, bicycling, and snowshoeing.

The Forest Service provides a significant portion of the recreation opportunities available from Federal lands. Visitors to national forests are attracted by:

5,800 campgrounds and picnic areas
328 swimming developments
1,222 boating sites
250 winter sports sites, including 135 downhill ski areas

Recreation use: 209 million national forest visits
Lands burned by wildfire: 530,000 acres
Insect and disease suppression: 1.7 million acres
Watershed improvements: 35,562 acres
Terrestrial acres restored or enhanced for wildlife: 600,670
Aquatic acres restored or enhanced for fisheries: 20,389
Stream miles restored or enhanced for fisheries: 2,741
Reforestation: 268,520 acres
Livestock grazing: 9.3 million animal head months
Grazing allotments administered: 8,783
Timber sold: 2.2 billion board feet, enough to build about 150,000 homes
Timber harvested: 2.9 billion board feet
Road system: 386,000 miles

Large-Scale Watershed Restoration Projects



Farmers and forest landowners need information to facilitate the adoption or use of more environmentally sound practices.

Plan; and providing jobs for local communities. These funds and their use are the critical link to local governments and allow private landowners to become major partners in watershed restoration efforts.

National Forest System—Conservation and Multiple Use

Lands and Realty Management

Lands and Realty Management activities include:

- Purchasing land to protect critical resources areas and provide increased public recreation opportunities,
- Authorizing powerlines to provide electricity to communities,
- Ensuring that hydro-electric projects protect riparian areas on the national forest,
- Exchanging lands with private parties to achieve a desired national forest landownership pattern that supports forest land and resource goals and objectives,
- Surveying national forest boundaries to identify and protect private and public lands,
- Determining the fair market value of lands purchased or exchanged, so that transaction is fair to the public and the landowner involved,
- Authorizing right-of-ways for roads to private in-holdings within the forest,
- Accepting donations of land to protect archeological, historical, or other significant sites,
- Maintaining records of national forest land areas, land transactions, land status, permitted uses, and easements,
- Securing public road and trail access to existing National Forest System lands,
- Responding to congressional request drafting services for land ownership adjustment activities.

Key Facts About Wildlife, Fish, and Rare Plants

The National Forest System includes 2.3 million acres of fishable lakes, ponds, and reservoirs and more than 197,000 miles of perennial streams.

National forests and grasslands support habitats for more than 3,000 species of birds, mammals, reptiles, amphibians, and fish, as well as some 10,000 plant species.

In 2000, over 76,000 people engaged in Eyes on Wildlife and Migratory Bird Day events on national forests and grasslands.

The national forests and grasslands also provide:

- 80 percent of the elk, mountain goat, and bighorn sheep habitat in the lower 48 States,
- 28 million acres of wild turkey habitat,
- 5.4 million acres of wetland habitat,
- Habitat for 250 species of neotropical migratory birds, and
- 2,800 species classified as sensitive, threatened, or endangered plants, fish, or wildlife.

Partnerships

In 2001, $17.6 million in Federal funds was matched by partners' $26.9 million, for a total of $44.5 million to accomplish partnership projects for wildlife, fish, and threatened, endangered, and sensitive species on the national forests and grasslands. For example, employees of the Alabama Power Company and the Bankhead Ranger District utilized bundles of donated Christmas trees to construct sunken fish habitat structures.

Water, Soil, and Air

About 14 percent of the surface water supply in the United States flows from National Forest System (NFS) watersheds. The goals of the Forest Service's watershed, soil, and air management programs

are to (1) manage watersheds to maintain or improve watershed conditions to sustain forest land and rangeland health for multiple uses; (2) sustain soil productivity, (3) protect 88 Class I wilderness areas from air pollution, and (4) evaluate Forest Service activities and their effect of air quality, watershed and soil condition.

The task of mapping all soils within NFS, with the cooperation of USDA's Natural Resources Conservation Service, is continuing and is over 50 percent complete. Annually, the Forest Service completes approximately 30,000 acres to improve water and soil resources. Other significant ongoing activities include watershed inventory and analyses to better understand the capability of watersheds to sustain forest land and rangeland health; participating in water rights adjudications; restoring desired watershed conditions on abandoned mines and hazardous materials sites located on national forests; monitoring to determine air pollution impacts on visibility, water, and soil chemistry in wilderness areas; and leading collaboration on large-scale watershed restoration efforts.

Key Facts About Water, Soil, and Air:

- There are approximately 6,000 watersheds on National Forest System lands that produce an average 190 million acre-feet of water annually.
- There are 3,336 municipalities, serving 60 million people, which get their tap water from NFS lands.
- 173 trillion gallons of water are supplied by National Forest System municipal watersheds annually.
- There are 88 wilderness areas designated Class I for air quality protection totaling 15 million acres. As of FY 2001, all of these areas are monitored for regional haze and part of a nationwide multi-agency network.
- There are 5 regional planning organizations assessing strategies for improving visibility in class/acreages. The Forest Service participates in all of these. Strategies developed will improve air quality for all people.
- About 600 remote weather data collection platforms are used in agricultural, fire, weather, and stream flow forecasting.

Rangeland

NFS rangeland is managed to conserve the land and its vegetation while providing food for both livestock and wildlife. Under multiple-use concepts, grazing areas also serve as watersheds, wildlife habitat, and recreation sites. Grazing privileges are granted on national forests and grasslands through paid permits; permittees cooperate with the Forest Service in range improvement projects.

(National Environmental Policy Act (NEPA) process decisions were made on allotments across the country in adherence to the Rescissions Act of 1995 (Public Law 104-19). The first 6 years of the 15-year Rescissions Act schedule, 1996 through 2001, ended with approximately one-third of all the livestock grazing allotments that needed environmental analyses being analyzed. Implementation of improved management was undertaken on these allotments. Monitoring both implementation and effectiveness of the management actions has been undertaken and will continue into the future.

The noxious weed management program was a success in FY 2000 with 143,938 acres treated. The Forest Service in cooperation with the States, counties, and cities worked together to prevent the spread of noxious weeds, treating existing infestations, and educating citizens about noxious weed problems.

Key Facts About Rangeland:

- In FY 2001, the Forest Service administered 8,783 grazing allotments.
- Permitted livestock grazing totaled approximately 9.4 million animal head months. (A head month is 1 month's occupancy by an adult animal.)
- By the end of 2001, 2,107 allotments underwent environmental analyses under the 1995 Rescissions Act. Management decisions were made on those that resulted in improved rangeland vegetation.
- In FY 2001, 143,938 acres of rangelands were treated to control noxious weeds infestations.
- Forage improvement took place on 33,667 acres of rangelands in FY 2001.
- In FY 2001, 1,357 structural improvements were constructed on NFS rangelands to implement management changes prescribed in recent decisions.

Energy, Minerals, and Geology

Exploration, development, and production of energy and minerals from National Forest System lands contribute to economic growth, provide employment in rural communities, and raise revenues that are shared with the States. The energy and minerals component of the program is directed at obtaining these benefits while ensuring operations are conducted in an environmentally sound manner. In terms of the magnitude of the energy and minerals program, there are approximately 5.3 million acres leased for oil and gas, over 150,000 mining claims, about 9,000 mineral material sales contracts and permits, over 2,000 new operations proposed each year, and more than 15,000 operations to monitor and inspect. The largest coal mine in the United States is on NFS lands, and much of the Nation's phosphate and lead production comes from NFS lands. The value of all energy and mineral production exceeds $2.1 billion per year. Annual revenues are about $170 million, 25-50 percent of which is returned to the States where production occurs.

Key Facts About Forest Service Energy, Minerals, and Geology Program

- Minerals found on Forest Service lands provide more than $3.3 billion in private sector revenue.
- 7 million acres where there is a possibility for coal leasing (50 billion tons)
- 45 million acres where there is a possibility for oil and gas leasing; 5.3 million acres leased
- About 7,000 sand, gravel, and stone pits and quarries
- Approximately 2,000 new operations requiring review each year
- Over 95 percent of domestic platinum/palladium comes from the Custer and Gallatin National Forests
- Over 20,000 existing operations requiring monitoring
- 45 percent of the Nation's production of lead
- One of the world's largest molybdenum deposits (Tongass National Forest, AK)
- Many of the Nation's 100,000 rock hounds, recreational mineral collectors, students, and geologic organizations use the national forests for education and recreational purposes.
- Recreational panning for gold is an activity that is rapidly increasing.
- The Forest Service manages fossil and geologic sites of interest as resources for present and future generations, scientific, education, interpretive, recreational, and aesthetic values.
- The most complete Champsosaurus skeleton in the world (55 million years old) came off Little Missouri National Grasslands and is on display at FS headquarters.
- FS has partnerships with communities, States, and universities on managing the paleontological resource.

Following are examples of energy and mineral production on NFS lands:

FY 2001

- 7.3 million barrels of oil
- 93 billion cubic feet of gas
- 94 million tons of coal

FY 2000

- 575 million pounds of lead
- 178 million pounds of copper
- 529,000 ounces of gold

Recreation, Heritage and Wilderness Resources

America's national forests and grasslands are the "gold crown" of outdoor settings where American and international visitors alike enjoy a wide variety of premier recreation activities. From the Tongass National Forest in Alaska, where glaciers and coniferous forests abound, through the wild and scenic rivers of Idaho, to the heritage sites of the Jemez Mountains in New Mexico and the tropical forest of the Caribbean National Forest in Puerto Rico, recreation is outdoor fun on our national forests and grasslands.

In partnership with six other Federal agencies, the Forest Service unveiled an Internet program that makes it possible for anyone with access to a computer to learn about outdoor recreation opportunities on all Federal public lands. Visit **www.recreation.gov**

Forest Service Recreation Portfolio

- 60 percent of the Nation's skiing
- Significant percentages of hunting, fishing, and wildlife viewing
- World-class hiking, camping, and driving for pleasure

- 50 percent of habitat for salmon and trout (lower 48 States)
- 80 percent of habitat for elk, bighorn sheep, and mountain goat (lower 48 States)
- 50 percent of public lands trail miles in the country

Key Recreation Facts:

- Wilderness areas 399 (34.7 million acres)
- 63 percent of National Wilderness Preservation System managed by Forest Service in lower 48 States
- 34 percent of National Wilderness Preservation System managed by Forest Service in total United States
- 20 national recreation areas (NRA) (includes land between the lakes NRA)
- 9 national scenic areas (NSA)
- 4 national monuments and volcanic monuments (NM)
- 6.7 million acres of NRA, NSA, and NM (includes land between the lakes NRA)

Recreation Roads, Trails, and Rivers

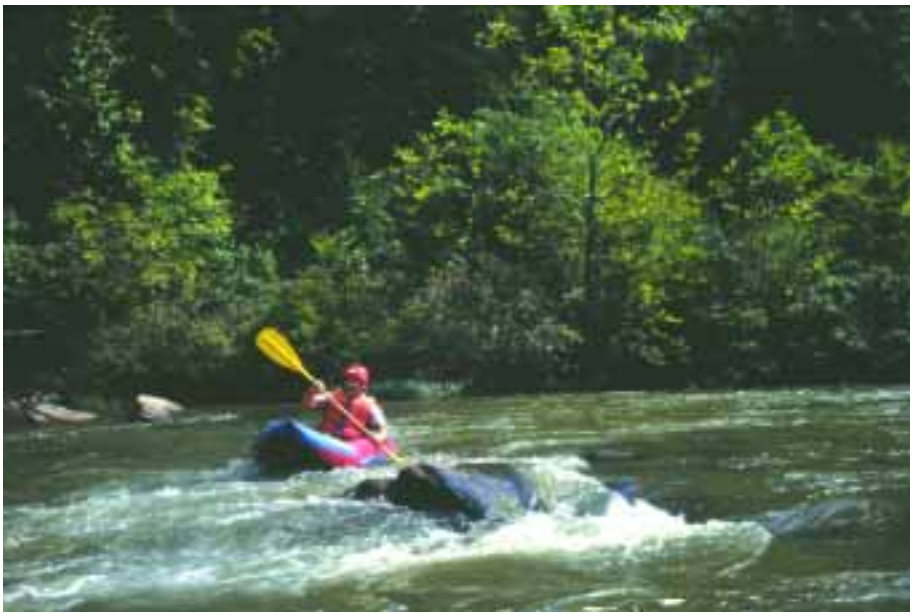
- 136 (9,126 miles) national forest scenic byways
- 95 (4,418 miles) wild and scenic rivers
- 133,087 miles of trails
- 6,709 miles of scenic and historic trails

Sites, Facilities, and Services

- 277,000 heritage properties
- 4,300 campgrounds
- 23,000 developed recreation sites
- 135 Alpine ski areas
- 1,496 picnic sites
- 1,222 boating sites
- 140 swimming areas
- 18,000 recreation facilities
- 14,900 recreation residences
- 480 resorts

National Forest System Inventory, Assessment, and Planning

Sustainable and effective management of National Forest System lands is dependent upon scientifically credible information and collaborative planning. Sustainable management includes the continued existence and use of resources to meet human physical, economic, and social needs; the desire to preserve the health of ecosystems in perpetuity; and the ethical choice of preserving options for future generations while meeting the needs of the present.



National Forest System planning consists of four basic activities that constitute a continuous planning framework: Inventory, Assessment, Land Management Planning, and Monitoring.

Key Facts about Inventory, Assessment, and Planning:

- Inventories of National Forest System resources are currently being conducted at a refreshment rate of 15–18 years and total 10,432,000 acres/year.
- A total of 130 watersheds and 18 broad-scale assessments were completed.
- Land and Resource Management Plans have been prepared for 126 administrative units and include all national forests and grasslands. Revisions were initiated or completed on 11 units.
- Annual reports of monitoring results were prepared for 126 administrative units.
- Each year the Forest Service produces:
  - 10,000 decision memorandums
  - 5,000 environmental assessments
  - 250 environmental impact statements
- Over 1,200 projects, plans, and permit decisions were administratively appealed.
- On average, the Forest Service had over 200 lawsuits pending at any given time challenging resource management decisions.

Forest Vegetation Management
Approximately 73 percent of the 192 million acres of national forests is considered forested. Of the forested land, 29 percent is available for regularly scheduled timber harvest and less than 1 percent is subject to some form of timber harvest treatment in any given year. The remaining 71 percent of the forested land is protected as wilderness, used for recreation, or cannot be harvested due to environmental or economic conditions such as steep slopes, fragile soils, and lack of feasible access.

Stewardship Demonstration Projects
Experience has shown that the agency's traditional tools for managing vegetation, i.e., the standard timber sale and service contracts, are oftentimes not well suited to addressing many of today's most pressing vegetative management needs, or to implementing truly integrated resource management projects. The standard timber sale contract was designed to dispose of commercially valuable timber, but many of today's most important treatment needs—e.g., reducing excessive fuel loadings—often involve managing wood of little or no commercial value. The standard service contract can be a flexible and powerful tool, but funding frequently limits the amount of work that can be accomplished in this manner.

Recognizing the problems associated with its traditional vegetative management tools, Congress gave the Forest Service the authority to test an array of new processes and procedures through a series of 28 stewardship contracting end-results demonstration projects. The projects that are undertaken are to address one or more of the following resource management objectives: road and trail maintenance or obliteration to restore or maintain water quality; soil productivity, habitat for wildlife and fisheries, or other resource values; setting of prescribed fires to improve the composition, structure, condition, and health of stands or improve wildlife habitat; noncommercial cutting or removing of trees or other activities to promote healthy forest stands, reduce fire hazards, or achieve other noncommercial objectives; watershed restoration and maintenance; restoration and maintenance of wildlife and fish habitat; and control of noxious weeds and reestablishing native plant species. The new processes and procedures the agency may test include the following: award of contracts on the basis of best value, service contracts of up to 10 years' duration, exchange of goods for services, retention of receipts, offer of sales valued at over $10,000 without advertisement, designation of timber to be cut by description, and use of State foresters as Federal agents in helping to prepare and administer national forest timber sales.

Passport in Time
Through the Passport in Time program, the Forest Service offers unique, nontraditional recreation opportunities such as archaeological excavation, historic structure restoration, and wilderness surveys. These experiences foster environmental stewardship while providing the public with unusual, educational experiences.

Passport in Time has over 13,000 volunteers contributing over $5.2 million worth of time and effort to preserve our Nation's history by restoring historic structures, stabilizing National Register eligible sites, evaluating sites for inclusion in the National Register of Historic Places, working on projects in wilderness, and developing heritage interpre-

tive sites. Every activity is aimed at making our Nation's unique history accessible to the public and preserving it for future generations.

State and Private Forestry—Providing Assistance to Nonindustrial Private Landowners

The State and Private Forestry programs represent important tools for the monitoring, management, protection, and better use of America's forests, with emphasis on non-Federal forest land stewardship. These programs connect forestry to all land managers—whether small, urban woodlot owners, tribal foresters, State agencies, or Federal—in efficient, nonregulatory ways. Through a coordinated effort in management, protection, and better use, the programs of State and Private Forestry help facilitate sound forestry across ownerships on a landscape scale.

About 70 percent of America's forests are in State and private ownership, and 80 percent of the wood fiber potential comes from these lands. These lands are also critical to watershed conditions, fish and wildlife habitat, and the aesthetic quality of the Nation's landscape; and they represent one of the best sources of carbon sequestration. Since these non-Federal forests represent most of the forests in our country, keeping these lands healthy, productive, and sustainable in the rural and urban areas on a cumulative basis is especially important to the Nation. With increasing fragmentation and development pressure, the unique Federal role in maintaining the value and functions of these lands across ownership divisions has never been greater or more important.

Forest Health Protection

The Forest Service provides technical and financial assistance to Federal agencies, tribal governments, States, and (through State foresters) private landowners. The Forest Service and State foresters participate in a forest health-monitoring program. With USDA's Animal and Plant Health Inspection Service, the Forest Service works to protect the Nation's forests from exotic insects, diseases, and plants. The Forest Service provides technical assistance in the safe and effective use of pesticides, shares the cost of insect and disease prevention and suppression projects with States, and funds prevention and suppression projects on Federal lands. The agency also evaluates and applies new, efficient and environmentally sensitive technologies for forest health protection.

Cooperative Forestry—Providing Assistance to Nonindustrial Private Landowners (NIPF) and Community Areas

Cooperative Forestry supports the Forest Service mission in two important ways. First, it helps meet the needs of present and future generations by "connecting people to resources and ideas" and by assisting them to "sustain their communities." Second, it helps to sustain the health, diversity, and productivity of the Nation's forests and grasslands by helping people care for the land and its resources.

The **Forest Stewardship Program** promotes sustainable management of America's non-Federal forests by enabling 9.9 million NIPF landowners—who own 48 percent of the Nation's forests—to better manage, protect, and use their natural resources. In cooperation with State resource management agencies, the program assists forest landowners with planning and implementation of riparian restoration, wildlife habitat enhancement, forest stand improvement, and other aspects of sustainable forest management. The program also assists NIPF landowners, on a voluntary, nonregulatory basis by providing technical and financial assistance, in cooperation with States, to develop long-term forest stewardship plans for the management of their forests and related sources.

The **Forest Legacy Program** is designed to effectively protect and conserve environmentally important forest areas that are threatened by conversion to non-forest uses. These lands can be protected through conservation easements and other mechanisms. This program is based on the concept of "willing seller and willing buyer" and is completely nonregulatory in its approach. No eminent domain authority or adverse condemnation is authorized.

Economic Action Programs

Economic Action Programs (EAP) stimulate and assist natural resource-dependent rural communities and natural resource-based businesses to pursue self-sufficiency and sustainability. Special focus includes helping build rural business infrastructures to utilize and market products from ecosystem management operations.

Key Facts about Cooperative Forestry Programs:

The **Economic Action Programs** as a whole and the funds from the National Fire Plan designated for rural communities used over 1,700 activities to build local capacity to address their needs and create opportunities. More than 650 projects included funded activities aimed at maintaining local community businesses. About 25 projects in FY 2001 specifically included activities associated with natural resource-based business startups. Communities and organizations used nearly 30 activities in FY 2001 associated with biomass or energy.

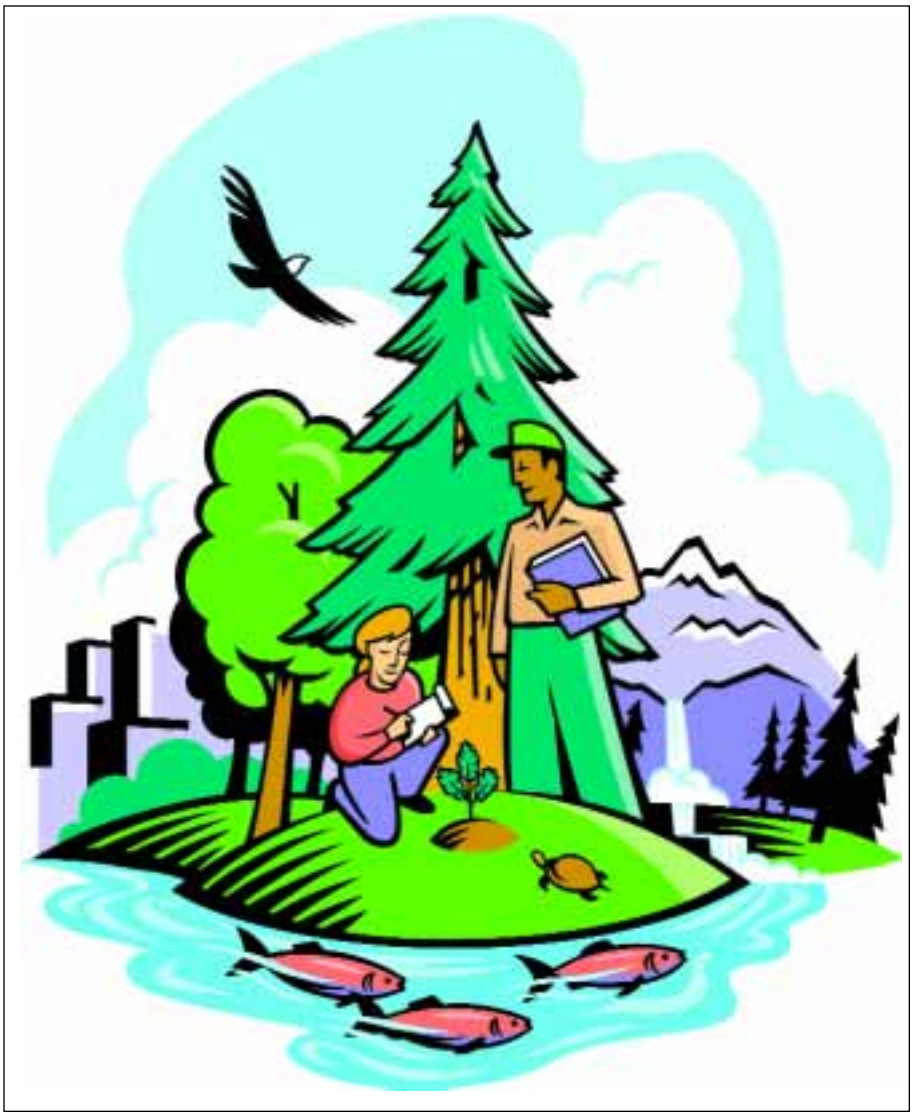
During FY 2001 the **Rural Community Assistance Program** provided technical or financial assistance to nearly 800 rural communities and organizations. This total includes 81 tribes/tribal organizations, 99 minority communities/organizations, and 133 underserved communities. Wildfire protection, prevention, and hazardous fuels management were incorporated into 180 rural community strategic action plans.

In FY 2001 the **Forest Products and Conservation Recycling Program** provided technical and financial assistance to1,456 individual businesses that employed 10 or less people, 967 businesses that employed 11 to 99 people, 193 individual businesses that employed 100 or more people, and 596 assists were made to communities and nonprofit organizations.

The **Wood in Transportation Program** in FY 2001 funded six projects which were completed and closed. Those projects were six designed and constructed timber bridges. These projects not only resulted in a wooden timber bridge but also assisted in providing technical assistance to engineers, highway officials, and others.

The **Forest Stewardship Program** was responsible for facilitating the development of more than 50,000 forest management plans covering just over 4 million nonindustrial private forest land acres in FY 2000 and FY 2001.

Forest Legacy Program since 1992 has assisted in the protection of over 209,000 acres from development. These lands have a value of roughly $124 million. Thirty-one States are participating in the program.

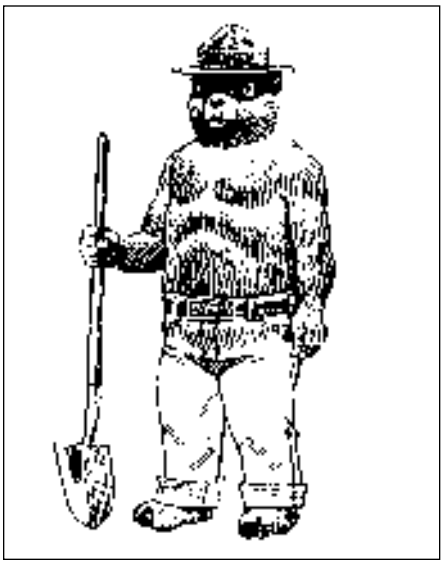


Conservation Education

"Through education, we connect people with the land so they take informed actions to sustain natural and cultural resources." This is the mission of Forest Service Conservation Education (CE).

The Forest Service brings unique strengths to the field of conservation education. The agency is a leader in providing scientific knowledge through its research programs and outstanding opportunities for place-based learning about natural resources on more than 192 million acres of forests and grasslands within the National Forest System. It also provides an extensive delivery network for CE through more than 700 offices and 30,000 employees, as well as with partners such as State foresters. The Forest Service emphasizes delivery of CE to youth, urban populations, and forest visitors.

In 2001, the CE program reached nearly 4 million Americans, nearly 100,000 of those in face-to-face educational experiences. Nearly 1 ½ million people participating in Forest Service's CE programs and activities were students, and another 90,000 were teachers. Over ½ million Forest visitors participated in these programs along with nearly 1 ½ million members of the general public.

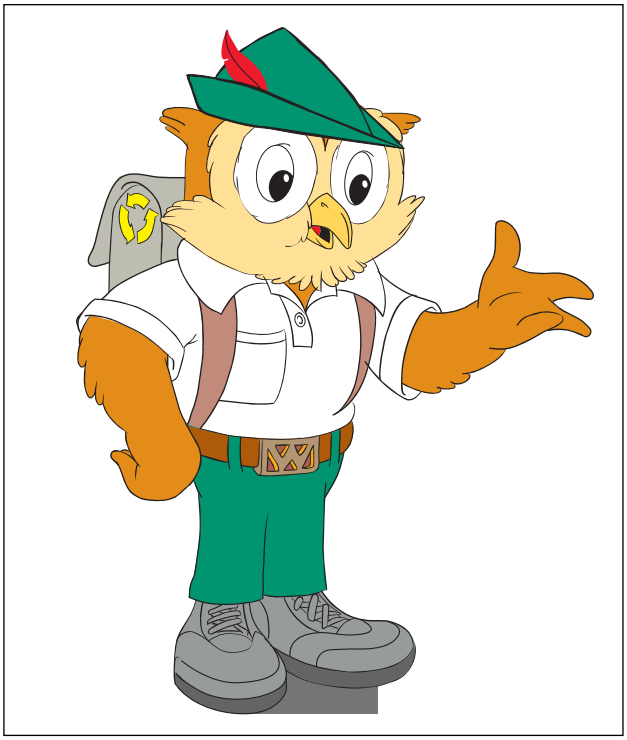


The National Symbols Program: The National Symbols Program, a part of the Conservation Education Staff, provides leadership for the Smokey Bear, Woodsy Owl, and Junior Forest Ranger programs.

Each of these programs is designed to increase awareness and educate the general public about natural resource conservation and fire prevention.

Smokey Bear: The Smokey Bear fire prevention campaign has been managed in partnership with the Advertising Council and the National Association of State Foresters for over 50 years. The Smokey Bear program is the cornerstone of the Forest Service's fire prevention program. Annual campaigns have contributed to Smokey's popularity both nationally and internationally, and several other countries have adopted Smokey as their symbol for fire prevention.

In addition to speaking to elementary-school-age children, Smokey's message and image are also used to generate awareness among adults about the real cause of fire: forest fires caused by the people who would least expect to be the cause of a fire, people like you. In 2001, Smokey's message was changed to "Only you can prevent wildfires!" The change helps to include non-forested areas such as grasslands, prairies, and rangelands in Smokey's fire prevention campaign.



Junior Forest Ranger: In 1952, a Smokey Bear stuffed toy sold in stores included an application to become a Junior Forest Ranger. The response was overwhelming. More than ½ million children enrolled in the program within the first 3 years. As a result, the Junior Forest Ranger program was established to augment and complement a fire prevention classroom program that included hands-on activities led by teachers. Response to the program was so enthusiastic that by 1960 Smokey was given his own zip code to help the postal service sort the mail generated by Smokey Bear and the Junior Forest Ranger programs.

Youth who participate in the Junior Forest Ranger program receive a packet including a plastic badge, wallet card, letter, and certificate. Junior Forest Ranger is still a popular program, and over the next few years, the program will be refocused to support education about fire ecology as well as fire prevention.

Woodsy Owl: Woodsy Owl is America's symbol for environmental quality, established by an Act of Congress in June 1974, to promote wise use of the environment and programs that foster maintenance and improvement of environmental quality. Woodsy's goals and objectives and his look have been updated to reflect today's needs. Woodsy's primary audience is children from pre-kindergarten to third grade with special emphasis on outreach to nontraditional groups, such as: Hispanics, Native Americans, and inner-city children. An innovative program called Junior Snow Ranger has been developed as part of the Woodsy Program to promote conservation ethics and an understanding of winter ecology. Junior Snow Ranger was piloted at the 2002 Winter Olympic Games.

New Century of Service

The Forest Service will celebrate 100 years of service to the American public in 2005. Through New Century of Service, the Forest Service is commemorating the many contributions that people of the Forest Service have made to the United States over the past 100 years, taking the lessons the agency has learned and applying them to continue to provide world-class public service for the next 100 years. New Century of Service is about the people of the agency, celebrating service, excellence, relationships and innovation. Activities taking place nationally, regionally, and locally include participation in the Smithsonian Institution's Folklife Festival in 2005; teaching natural resource conservation through visual and performing arts; nurturing our commitment to communities through a forest fire lookout project and other activities.

Research and Development

Forestry research in the U.S. Department of Agriculture goes back a long way. In 1876, Congress appropriated $2,000 to the Department of Agriculture to gather forestry information, and thus the Federal forestry research program was born. In 1908, Gifford Pinchot established the first research station within the newly formed Forest Service in Fort Valley, AZ. The Forest Products Laboratory, which was established in Madison, WI, in 1910, distinguished itself in meeting the Nation's demands during two World Wars and the housing needs of the booming economy after that time period.

Currently, Forest Service Research and Development has 132 laboratories in 70 locations across the country. They are organized within 6 research stations, the national Forest Products Laboratory, and the International Institute of Tropical Forestry in Puerto Rico. Of the 192 million acres of forest and rangeland managed by the Forest Service, 408,600 acres are officially designated as Experimental Forests.

Key Facts About Research and Development:

- Research and Development develops and maintains key databases for enhancing forest health, productivity, and conservation, including an extensive portfolio of long-term research databases with many more than 60 years old.
- About 525 permanent full-time scientists are working on the productivity, health, and diversity of the temperate, boreal, and tropical forests.
- Research and Development scientists are held to high standards of scientific ethics and many are recognized worldwide for the quality of their work. All four of the U.S. scientists who received the prestigious Marcus Wallenberg Award (the forestry equivalent of the Nobel prize) are research and development scientists.
- Research and Development manages 73 experimental forests and ranges and 452 research natural areas devoted to long-term research.
- Research and Development works with the National Forest System and university partners on a network of 62 long-term soil productivity sites across the United States and Canada with the goal of monitoring management effects on sustainability and productivity.
- The Forest Service provides leadership in tropical forestry through collaborative research programs at the International Institute of Tropical Forestry in Puerto Rico and the Institute of Pacific Islands Forestry in Hawaii.
- Scientific products in 2001 included more than 5,678 publications, including patents, computer models, videos and books, that address the questions and needs of natural resource managers, other scientists, and the public.
- Collaboration with research partners through 794 domestic grants, agreements, and contracts total about $52 million of extramural funding.
- In 2001, the Forest Inventory and Analysis program, including forest health detection monitoring conducted inventory on 75 percent of the Nation's forest land across all ownerships in 35 States and reported status and trends in 115 inventory and monitoring reports.

Senior, Youth, and Volunteer Programs
Senior, Youth, and Volunteer Programs provide job opportunities, training, and education for the unemployed, underemployed, elderly, young, and others with special needs, while benefiting high-priority conservation work. In FY 2001, these programs included more than 108,700 participants and accomplished over $115 million in conservation work on Forest Service lands.

Through an agreement with the U.S. Department of Labor, the Forest Service operates 18 co-educational Job Corps Civilian Conservation Centers on Forest Service lands. The Forest Service has been operating Job Corps Centers since 1965. The Job Corps program is the only Federal residential education/training program for the Nation's disadvantaged youth.

Key Facts About Job Corps Civilian Conservation Centers:
- 18 Job Corps Centers (co-educational)
- 9,528 enrolled, ages 16-24
- $114.6 million budget (PAY 2000)
- $18.3 million work accomplishment
- 91 percent students placed (based on participants enrolled)
- $8.42 average starting hourly wage
- 48 percent minorities

The Senior Community Service Employment Program (SCSEP) is designed to provide useful part-time employment, work experience, training, and transition to public and private unsubsidized employment for persons age 55 and over. A 30th anniversary celebration is being planned for PAY 2001.

Key Facts About the Senior Community Service Employment Program:
- 5,537 older workers participated
- $28.4 million budget (PAY 2000)
- $39.4 million work accomplishment
- Only Federal agency among 10 national sponsors
- 44 percent females
- 29 percent placed in unsubsidized employment (1,160 seniors)
- $1.39 return on dollar invested

In the Youth Conservation Corps (YCC) summer employment program, persons aged 15-18 accomplish projects that further the development and conservation of the United States' natural resources. The agency was directed to use not less than $2 million of agency appropriations for high-priority projects to be carried out by the Youth Conservation Corps program.

Key Facts About the Youth Conservation Corps:
- 891 enrollees, ages 15-18
- $2.2 million operating costs
- $2.6 million work accomplishment
- $1.18 return on dollar invested
- 42 percent females
- 30th anniversary of operating program

The Volunteers in the National Forests program allows organizations and individuals to donate their talents and services to help manage the Nation's natural resources.

Key Facts About Volunteers in the National Forests:
- 84,508 volunteers have participated (including 80 international volunteers)
- $38.6 million work accomplishment
- 36 percent females
- Over 1.6 million volunteers served since the 1972 legislation

Hosted programs provide conservation training and work opportunities on national forests or in conjunction with Federal programs. Programs are administered through agreements with State and county agencies, colleges, universities, Indian tribes, and private and nonprofit organizations.

Key Facts About Hosted Programs:
- 8,333 participants
- $16.3 million work accomplishment
- 23 percent females
- 29 percent minorities

Civil Rights
The Forest Service encourages a variety of recruitment and community capacity-building efforts aimed at recruiting for permanent professional positions and conducting program public outreach/technical assistance to underserved communities through Forest Service programs, academic institutions, and partners.

Office of International Programs
The Forest Service promotes technical cooperation and develops support for sustainable forest management practices worldwide. In addition, many individual research relationships exist between Forest Service researchers and managers and their counterparts around the world.

Key Facts About the Impact of International Programs:

- Through involvement with industry, State foresters, and major nongovernmental organizations, 12 countries forged a consensus on a set of criteria and indicators for assessing progress towards sustainable forest management.
- International collaboration on research and monitoring help to reduce the impact of invasive pests such as the Asian gypsy moth and hemlock woolly adelgid, which have severe impacts on timber resources.
- Partnerships with organizations such as Ducks Unlimited to restore waterfowl habitat will increase the populations of waterfowl that migrate to the Western and Southwestern United States from Mexico and further south.
- A program with the Federal Forest Service of Russia, the State of Alaska, and U.S. companies and nongovernmental organizations will help to ensure that Russians have access to the best environmental technology as petroleum resources on Sakhalin Island are developed. This will promote increased employment in Alaska and preserve salmon fisheries around Sakhalin Island and Alaska.

Law Enforcement and Investigations

The Forest Service Law Enforcement and Investigations (LEI) program is charged with providing a safe environment for the public and our employees on National Forest System (NFS) lands and protecting natural resources and other property under the agency's jurisdiction. Law Enforcement and Investigations cooperates with Federal, State and local law enforcement agencies and other Forest Service programs to achieve these goals. The LEI staff provide high-visibility uniformed patrol presence and prompt response to public and employee safety incidents and violations of law and regulation. They conduct criminal investigations and maintain strong relationships with cooperating law enforcement agencies. While the FS does not have immigration authority, our drug enforcement authorities and other responsibilities on the hundreds of miles of contiguous NFS lands along both the Southwest and Northern Border require FS and LEI personnel to maintain a steadfast vigilance and presence in these areas.

In addition, they reduce the production of domestic cannabis and other controlled substances and smuggling of illegal drugs through NFS lands. The National Forest System Drug Control Act of 1986, amended in 1988, placed primary responsibility on the Forest Service for Federal drug enforcement on NFS lands. Three primary drug enforcement issues affect NFS lands: (1) marijuana cultivation, (2) methamphetamine production, and (3) smuggling across the U.S./Mexico and U.S./Canada borders.

Key Facts About Law Enforcement and Investigations—Calendar Year 2001

- LEI has approximately 490 uniformed officers patrolling NFS lands nationwide and 120 criminal investigators.
- LEI made more than a million public contacts for a variety of reasons, such as providing general information, obtaining information on criminal matters, and assisting with visitors' problems.
- LEI personnel responded to 215,593 incidents of violation including on- and off-road vehicles, wilderness, fire and forest products, damage to government property and natural resources, as well as emergency responses such as search and rescue.
- LEI conducted 1,908 serious misdemeanor and felony investigations for timber and other forest product theft, archeological violations, wild land fire, controlled substances, employee threats, assaults, and other resource and property-related crimes.
- LEI had oversight of 172 internal and hotline complaints against agency employees and programs.
- LEI entered into 527 cooperative agreements with State and local law enforcement agencies to provide reimbursement for enforcement of State and local laws on NFS lands in regular patrol functions, and 61 cooperative agreements for drug enforcement activities.
- LEI eradicated 719,985 marijuana plants from NFS lands.
- LEI seized nearly 90,000 pounds of processed marijuana being smuggled into the United States across the southwest border.
- LEI located 102 methamphetamine labs and 242 chemical dumpsites on NFS lands and seized 153.5 pounds of methamphetamine.
- Through a partnership with the Office of National Drug Control Policy, LEI received $500,000 for the National Marijuana Public Lands Initiative.

Farmers, ranchers, and private forest landowners own and manage two-thirds of the Nation's land and are the primary stewards of our soil, air, and water. While the cost of stewardship on that land is borne by land managers, the benefits accrue to society at large.

Natural Resources Conservation Service

Introduction

As the Nation's lead Federal agency addressing private lands conservation, the Natural Resources Conservation Service (NRCS) provides technical assistance and administers a wide range of programs to help solve this country's natural resource problems.

Our well-being depends on healthy, productive natural resources and their sustainable use. Just as soil, water, and habitat are interrelated, the programs that address these resources are interrelated, and programs that help one resource also benefit others. Protecting the soil from erosion, for example, also enhances soil productivity and protects water and air quality. Improving the environment enhances the economic future of communities throughout the United States.

The mission of NRCS is to provide national leadership, in a partnership effort, to help people conserve, improve, and sustain the Nation's natural resources and environment. NRCS' authorizing legislation directs the agency to assist resource owners, operators, and managers in conserving soil, water, and related resources. Conservation of natural resources is necessary to ensure that the Nation's people enjoy the benefits of:

- A productive resource base supporting a strong agricultural sector
- A high-quality natural environment
- Watersheds and water supplies that are protected against risks imposed by weather and climate
- A healthy economy and high quality of life in rural communities

A Partnership Approach to Resource Conservation

For nearly seven decades, NRCS employees have worked side by side with landowners, conservation districts, resource conservation and development councils, tribes, State and local governments, and urban and rural partners to restore and enhance the American landscape. The agency helps landowners and communities take a comprehensive approach in conservation planning, working toward an understanding of how all natural resources—soil, water, air, plants, and animals—relate to each other and to humans. The agency works to solve the natural resource challenges on the Nation's private lands—reducing soil erosion, improving soil and rangeland health, protecting water quality and supply, conserving wetlands, and providing fish and wildlife habitat.

Most NRCS employees serve in USDA's network of local, county-based offices, including those in Puerto Rico and the Pacific Basin. The rest are at State, regional, and national offices, providing technology, policy, and administrative support. They serve all people who live and work on the land. Nearly three-fourths of the agency's technical assistance goes to helping farmers and ranchers develop conservation systems uniquely suited to their land and their ways of doing business.

The agency helps rural and urban communities curb erosion, conserve and protect water, and solve other resource problems. American Indian tribes, Alaska Natives, Pacific Islanders, and other native groups work with NRCS on a variety of initiatives that include resource inventories and the adaptation of conservation programs to fit the special needs of their people and their land. Also, countries around the globe seek NRCS' advice on building their own conservation delivery systems and in coping with severe natural resource problems.

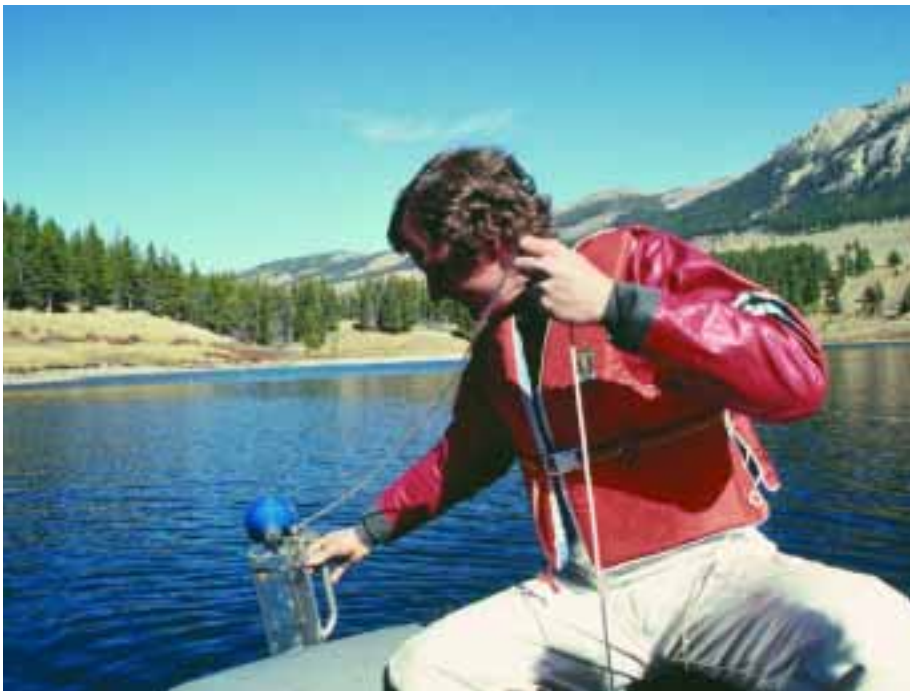
NRCS provides locally based conservation assistance in cooperation with conservation districts through a nationwide network of local field offices. Locally based NRCS technical staff work directly with individual farmers, ranchers, local and State officials and employees, and community groups, providing them technical, financial, and information assistance. In fiscal year 2001, NRCS provided assistance to 2.4 million farmers, ranchers, and other customers.

Erosion and Sediment Control
While NRCS has cut erosion on cropland by 38 percent between 1982 and 1997, soil erosion continues to threaten agricultural productivity on about one-third of our Nation's cropland. During fiscal year 2001, NRCS helped landowners plan and apply resource management systems on 9.5 million acres of cropland. The agency protected 3.5 million acres of cropland from excessive wind and water erosion and applied erosion control measures on 9.3 million acres of land, resulting in reducing soil loss by 257 million tons.

Important Farmlands
Farmland, one of America's greatest treasures, continues to be converted to nonagricultural uses. Between 1982 and 1997, every State lost some high-quality farmland to urban development. According to the National Resources Inventory, on average, 666,000 acres of prime farmland are converted each year to nonagricultural uses. This amounts to more than 70 acres per hour each day.

NRCS, working through State, tribal, or local government partnerships, has been able to protect important farmland including prime, unique, statewide or locally important soils. Since 1996, NRCS has entered into agreements in 29 States to leverage funds to protect more than 100,000 acres of agricultural lands from being converted to non-agricultural uses.

Wetlands, Fish and Wildlife
Wetlands provide vital wildlife habitat and help trap nutrients and sediment before they enter our streams. Loss of wetlands is still a concern; however, landowners have begun to restore, protect, and enhance this resource in a serious way. Since 1992, the net loss of wetland acreage on agricultural land has decreased dramatically. Continuing the reduction in net loss trend, in fiscal year 2001, wetlands were created, restored, or enhanced on 362,000 acres with NRCS technical and financial assistance.



NRCS Technical Assistance
NRCS provides Conservation Technical Assistance (CTA) to improve and conserve natural resources. This assistance is based on voluntary local landowner cooperation. CTA is the foundation upon which NRCS delivers its services, through local conservation districts, to private landowners, communities, and others who care for natural resources. CTA is the intellectual capital of the agency; experts in soils and other physical and biological sciences, with knowledge of local conditions, work with private landowners in the stewardship of our natural resources.

CTA provides the infrastructure through which the agency is able to respond to a multitude of needs, from natural disaster recovery to complex site-specific natural resource problems. CTA is the means by which this Nation is able to voluntarily bring about land stewardship that improves our soil, water, wildlife, and air resources while providing for sustainable agricultural production. The investments in CTA return to the American public significant benefits, ranging from an improved environment and quality of life to a safe and abundant food supply.

NRCS provided assistance to 2.4 million farmers, ranchers, and other customers. The agency earned an American Customer Satisfaction Index rating of 81 from a sample of landowners who received conservation technical assistance (CTA). The average score for all government agencies in the survey was 71. Customers gave NRCS an extremely high rating of 90 on trust, which is measured by whether the customer will (1) become an advocate for CTA and (2) request services or information from the agency in the future.

Wetlands Reserve Program
The Wetlands Reserve Program (WRP) is a voluntary program to restore wetlands. Participating landowners can establish conservation easements of either permanent or 30-year duration or can enter into restoration cost-share agreements where no easement is involved. In exchange for establishing a permanent easement, the landowner receives payment up to the agricultural value of the land and 100 percent of the restoration costs for restoring the wetland. The 30-year easement payment is 75 percent of what would be provided for a permanent easement on the same site and 75 percent of the restoration cost. The restoration cost-share agreements are for a minimum 10-year duration and provide for 75 percent of the cost of restoring the involved wetlands. At the end of fiscal year 2001, 1,074,245 acres were enrolled in WRP.

Environmental Quality Incentives Program
The Environmental Quality Incentives Program (EQIP) works primarily with locally identified significant natural resource concerns, such as soil erosion, water quality and quantity, wildlife habitat, wetlands, and forest and grazing lands. Activities must be carried out according to a conservation plan. The program offers financial, educational, and technical help to install or implement structural, vegetative, and management practices called for in 1- to 10-year contracts. Cost sharing may pay up to 75 percent of the costs of certain conservation practices. Nationally, at least 60 percent of the funding for this program is targeted to livestock-related natural resource concerns and the remainder to other significant conservation priorities.

Wildlife Habitat Incentives Program
The Wildlife Habitat Incentives Program (WHIP) provides financial incentives to develop habitat for fish and wildlife on private lands. Participants agree to implement a wildlife habitat development plan and USDA agrees to provide cost-share assistance for the initial implementation of wildlife habitat development practices. USDA and program participants enter into 5- to 10-year cost-share agreements. Since WHIP began in 1998, nearly 11,000 participants have enrolled more than 1.6 million acres into the program. In fiscal year 2001, NRCS utilized $12.5 million to enroll nearly 2,300 agreements on nearly 212,000 acres.

Conservation Security Program
The Conservation Security Program (CSP) is a voluntary program that provides financial and technical assistance for the conservation, protection, and improvement of soil, water, air, energy, plant and animal life, and other conservation purposes on tribal and private working lands. The program provides payments for producers who practice good stewardship on their agricultural lands and incentives for those who want to do more. CSP assistance is authorized in the 2002 Farm Bill and the program will be available in fiscal year 2003.

Eligible producers who own or control agricultural land may participate by submitting a conservation security plan and entering into an agreement with USDA. Participants must maintain or establish conservation treatment to specific levels of natural resource conservation protection on their land in exchange for an annual payment. Under certain conditions, participants would be eligible for renewal of the agreement in subsequent years. NRCS, or any other USDA-approved source, will provide technical assistance to the participant on the required conservation measures. Innovation and the use of new technologies are encouraged. Conservation achieved through the CSP will help ensure the sustainability of farms and ranches and improve the condition of natural resources on our Nation's working lands.

Farmland Protection Program
The Farmland Protection Program (FPP) is a voluntary program that helps farmers and ranchers keep their land in agriculture. The program provides matching funds to State, tribal, or local governments and non-governmental organizations with existing farmland protection programs to purchase conservation easements or other interests in land. NRCS manages the program. In fiscal year 2001, NRCS entered into 57 cooperative agreements with State and local governments and non-governmental organizations to protect an estimated 34,900 acres of farmland from conversion to nonagricultural uses through the program. Through 2001, more than 108,000 acres have been protected in 28 States.

Soil Surveys
The National Cooperative Soil Survey information constitutes one of the largest and most valuable natural resource databases in the world. NRCS conducts soil surveys cooperatively with other Federal agencies, land-grant universities, State agencies, and local units of government. Soil surveys provide the public with local information on the uses and capabilities of their soil resource. Soil surveys are based on scientific analysis and classification of the soils and are used to determine land capabilities and conservation treatment needs. The pub-

lished soil survey for a county or designated area includes maps and interpretations with explanatory information that is the foundation of resource policy, planning, and decisionmaking for Federal, State, county, and local community programs. In fiscal year 2001, NRCS mapped or updated 24.4 million acres of soils and provided 139 soil surveys in digital format. Soil survey mapping has been completed on more than 96 percent of the Nation's private land, 78 percent of American Indian lands, and 82 percent of public lands. In addition, more than 1,270 soil surveys have been digitized and made available for resource assessments.

Snow Survey and Water Supply Forecasts

NRCS field staff collect snow information through a network of 660 Snow Telemetry (SNOTEL) sites and 1,100 manual snow courses to provide 13 Western States with water supply forecasts. The data are collected, assembled, and analyzed to make water supply forecasts, which provide estimates of available seasonal yield, spring runoff, and summer stream flow. In fiscal year 2001, 9,000 water supply forecasts for Federal, State, and local water resource planning purposes were issued to 69,000 water users and managers. Snowmelt provides approximately 80 percent of the stream flow in the West. Snow data and water supply forecasts are used by individuals, organizations, and State and Federal agencies to make decisions relating to agricultural production, fish and wildlife management, recreation, power generation, water quality management, and emergency flood and snow safety management. Current and historical data, water supply forecasts, and drought risk assessments are available at:
http://www.wcc.nrcs.usda.gov

Plant Materials Centers

NRCS employees at 26 Plant Materials Centers assemble, test, and encourage increased plant propagation and usefulness of plant species for biomass production, carbon sequestration, erosion reduction, wetland restoration, water quality improvement, streambank and riparian area protection, coastal dune stabilization, and to meet other special conservation treatment needs. The work is carried out cooperatively with State and Federal agencies, universities, commercial businesses, and seed and nursery associations. After species are proven effective for conservation purposes, they are released to the private sector for commercial production. NRCS has released nearly 540 varieties of conservation plants to commercial producers. Nearly 250 improved varieties are now in commercial production and used in conservation programs. In fiscal year 2001, NRCS released 24 new conservation plants for commercial or private use and evaluated 424 plant material studies. The agency also provided data to 1.2 million customers through the PLANTS database Web site. NRCS plant information is available on the Web at:
http://www.plant-materials.nrcs.usda.gov

Small Watershed Program

The Small Watershed Program works through local government sponsors and helps participants solve natural resource problems of a specific watershed. Project purposes include watershed protection, flood prevention, erosion and sediment control, water supply, water quality, fish and wildlife habitat enhancement, wetlands creation and restoration, and public recreation in watersheds of 250,000 acres or less. Both technical and financial assistance are available. In fiscal year 2001, communities realized a total of $1.62 billion worth of benefits from small watershed projects.

Emergency Watershed Protection

The Emergency Watershed Protection (EWP) Program is designed to reduce threats to life and property in the wake of natural disasters. It provides technical and cost-sharing assistance. Assistance includes establishing vegetative cover; installing streambank protection devices; removing debris and sediment; and stabilizing levees, channels, and gullies. In subsequent storms, EWP projects protect homes, businesses, highways, and public facilities from further damage. Floodplain easements under EWP may be purchased to help prevent future losses due to natural disasters. In fiscal year 2001, nearly 2 million persons benefited from EWP efforts.

Watershed Operations

The Flood Control Act of 1944 authorized NRCS to administer watershed works of improvement. Flood prevention operations include planning and installing improvements and land treatment measures for flood prevention; for the conservation, development, utilization, and disposal of water; and for the reduction of sedimentation and erosion damages. This also may include the development of recreational facilities and the improvement of fish and wildlife habitat. Activities are authorized in 11 specific flood prevention projects covering about 35 million acres in 11 States. In fiscal year 2001, $14 million was obligated to assist clients impacted by flooding, and work plans were completed on 24 million acres. These plans provide project implementation guidance to local sponsors.

Watershed Surveys and Planning
NRCS cooperates with other Federal, State, and local agencies in conducting river basin surveys and investigations, flood hazard analysis, and flood plain management assistance to aid in the development of coordinated water resource programs, including the development of guiding principles and procedures. Cooperative river basin studies are made up of agricultural, rural, and upstream water and land resources to identify resource problems and determine corrective actions needed. These surveys address a variety of natural resource concerns, including water quality improvement; opportunities for water conservation; wetland and water storage capacity; agricultural drought problems; rural development; municipal and industrial water needs; upstream flood damages; and water needs for fish, wildlife, and forest-based industries. Flood plain management assistance includes the identification of flood hazards and the location and use of wetlands. NRCS represents USDA on river basin regional entities and river basin interagency committees for coordination among Federal Departments and States. In fiscal year 2001, the total financial obligation to support locally led watershed group actions was approximately $112 million.

Resource Conservation and Development Program
The Resource Conservation and Development (RC&D) Program provides a framework for local people to join together to improve their community's economy, environment, and living standards. RC&D areas are locally organized, sponsored, and directed. USDA provides technical and financial assistance and helps sponsors secure funding and services from Federal, State, and local sources. The major emphasis is environmental conservation and rural development. To date, 368 areas across the Nation (plus the Caribbean and Pacific Basin) have been designated by the Secretary of Agriculture as RC&D areas. They serve more than 85 percent of U.S. counties and more than 77 percent of the U.S. population.

Each year, these locally organized and directed areas create thousands of new jobs, protect thousands of miles of water bodies, conserve hundreds of thousands of acres of land, and improve the quality of life in hundreds of communities. RC&D areas are run by a council of volunteers who serve without pay. More than 20,000 volunteers are serving on and with RC&D councils. In fiscal year 2001, RC&Ds completed more than 3,000 projects. These resulted in 500 businesses created and 1,800 businesses expanded; 7,500 jobs created; and 5,000 miles of streams and 880,000 acres of wildlife habitat improved. More than 283,000 people learned new job skills and nearly 780,000 economically and socially disadvantaged people were served.

National Resources Inventory
NRCS conducts an inventory on the condition and trends of natural resources on non-Federal land. From 1982 to 1997, the inventory was conducted every 5 years. Starting in 2000, NRCS began collecting data each year. The National Resources Inventory (NRI) contains the most comprehensive and statistically reliable data of its kind in the world. It measures trends in soil erosion by water and wind; wetland losses; prime farmland acreage; irrigation; and habitat and conservation treatment at national, regional, State, and sub-State levels.

Conservation of Private Grazing Land Program
The Conservation of Private Grazing Land Program (CPGL) is a voluntary program that provides technical assistance from NRCS to owners and managers of private grazing land. Private grazing land, the largest agricultural land use, constitutes nearly half of the non-Federal land of the United States. This vast area contributes significantly to the quantity and quality of water available for use and supports some of the most extensive wildlife habitats in the Nation. NRCS provides technical assistance to owners and managers of private grazing land for the long-term productivity and ecological health of grazing land. In fiscal year 2001, through CPGL, NRCS helped landowners apply resource management systems on 11.3 million acres of grazing land and prescribed grazing on 18.6 million acres.

National Conservation Buffer Initiative
In April 1997, USDA launched a new public-private partnership called the National Conservation Buffer Initiative to help landowners install 2 million miles of conservation buffers by the year 2002. Agricultural producers and other landowners who install buffers can improve soil, air, and water quality; enhance wildlife habitat; restore biodiversity; and create scenic landscapes.

Conservation buffers are areas or strips of land maintained in permanent vegetation and designed to intercept pollutants. Buffers can be installed along streams or in uplands—within crop fields, at the edge of crop fields, or outside the margins of a field.

The National Conservation Buffer Initiative is a multi-year effort led by NRCS in cooperation with other USDA agencies, State conservation agencies, conservation districts, agribusinesses, and agricultural and environmental organizations.

To date, about 1.3 million miles of buffers, or nearly 65 percent of the national goal, have been established under the Conservation Reserve Program, Environmental Quality Incentives Program, Wetlands Reserve Program, and other USDA programs.

International Programs
NRCS helps improve the management and conservation of natural resources globally. Participation in collaborative efforts with other countries results in benefits to the United States and in accomplishment of the NRCS mission. During fiscal year 2001, NRCS specialists completed 188 assignments to nearly 40 countries. The objectives of the assignments were to provide short- and long-term technical assistance and leadership for the development of natural resource conservation programs and projects and exchange conservation technology with countries that face soil and water conservation issues similar to those in this country.

NRCS provided opportunities for approximately 250 foreign nationals from more than 35 countries to gain a better understanding of natural resource conservation activities by observing and discussing conservation programs in the United States.

Agricultural Air Quality
The Task Force on Agricultural Air Quality makes recommendations to the Secretary of Agriculture with regard to the scientific basis for agriculture's impact on air quality. The task force is charged with strengthening and coordinating USDA air quality research efforts to determine the extent to which agricultural activities contribute to air pollution and to identify cost-effective ways in which the agricultural industry can improve air quality.

To date, the task force has submitted to the Secretary of Agriculture recommendations and priorities for research emphasizing the need for credible science on which to base regulation and subsequent conservation practices for mitigation of emissions. The top three priorities recommended are related to National Ambient Air Quality Standards for PM10, PM2.5 and ozone, and animal waste odor.

Backyard Conservation Campaign
In 1998, NRCS developed a national Backyard Conservation Campaign to tell non-farm audiences about the good conservation work being done by America's farmers and ranchers. The campaign features 10 common conservation practices, such as composting, mulching, tree planting, nutrient management, and water conservation, and shows how miniature versions can work in just about any backyard—whether measured in acres, feet, or flower pots.

Farmers and ranchers already have made progress in natural resource conservation by protecting and restoring wetlands, enhancing wildlife habitat, and reducing soil erosion. There are nearly 2 billion acres of land in the United States. Most of that land, 1.4 billion acres, is managed by farmers and ranchers. However, more than 92 million acres are privately developed, and much of this land is tended by homeowners. These homeowners can join the conservation tradition right in their own backyards to curb water pollution and improve wildlife habitat. For more information on this campaign or agency programs, visit the NRCS Web site at **http://www.nrcs.usda.gov**