

10. Natural Resources and Environment

■ Forest Service: Caring for the Land and Serving People

The Forest Service considers the American people its owners, customers, and partners in caring for the Nation's natural resources. The Forest Service administers statutes that guide:

- Construction and maintenance of roads and trails where needed to allow for timber harvesting and public access to outdoor recreation areas;
- Construction and maintenance of facilities at outdoor recreation areas;
- Timber harvesting methods that protect other natural resources;
- Removal of oil, gas, uranium, and other minerals of strategic importance, as well as coal and geothermal steam;
- Use of national forest and range land as a refuge for threatened and endangered species of birds, animals, fish, and plants; and
- Use of national forests and grasslands for livestock grazing.

Mission

The Forest Service mission is "Caring for the Land and Serving People." The Forest Service's mission is further expressed in its land ethic: "Promote the sustainability of ecosystems by ensuring their health, diversity, and productivity." This is coupled with the service ethic: "Tell the truth, obey the law, work collaboratively, and use appropriate scientific information in caring for the land and serving people."

These land and service ethics are applied by the Forest Service through ecosystem management. 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 Draft 1995 Resources Planning Act Program, its long-term strategic plan, sets forth the programs and management actions that will be carried out under each of the four strategic goals. The Forest Service works toward three primary outcomes: healthy ecosystems; vital communities; and an effective, multi-disciplinary, multicultural organization.

Principal Laws

The Forest Service administers the lands and resources of the National Forest System under the Organic 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 top administrative official of the Forest Service is the Chief who, through the Under Secretary for Natural Resources and Environment, reports to the Secretary of Agriculture. The Forest Service is responsible for administering programs that provide services to the general public and other users in five areas: (1) National Forest System, (2) State and Private Forestry, (3) Research, (4) International Forestry, and (5) Administration.

The **National Forest System** (NFS) operates under the concept of multiple use, providing sustained yields of renewable resources such as water, livestock forage, wildlife habitat, wood, and recreation, and ensuring the integration of mineral resource programs and activities. The Forest Service is also committed to preserving wilderness, biodiversity, and visual quality. Scientific management of wildfire, epidemics of disease and insect pests, erosion, floods, and water and air pollution is also a major activity.

State and Private Forestry programs advance the Forest Service's mission of contributing to sound management of State and private nonindustrial forest land. The programs serve as a link among many public and private organizations and bridge ownership boundaries to promote the best use of America's natural resources.

Forest Service **Research** covers a wide range of forest-related subjects, develops new scientific knowledge regarding ecosystem restoration and management, and helps to protect and enhance productivity on all of America's forests and rangelands, with special attention to long-term natural resource issues of national and international scope.

International Forestry activities promote sustainable development and global environmental stability, particularly in countries important in global climate change. This mandate includes setting a national goal for sustainable management of all forests by the year 2000, researching topics with implications for global forest management, and facilitating the exchange of resource management experience around the world.

Forest Service **Administration** provides direction, quality assurance, and customer service in carrying out the Forest Service business and human resource programs.

Reinvention

In 1993 the National Performance Review selected the Forest Service to serve as a case study highlighting Federal agencies “doing it right.” Significant progress has been made in three categories: (1) determining what Forest Service employees think about their work and how they think it can be improved, (2) streamlining Agency processes, and (3) restructuring and downsizing Agency organization. Specific actions include these:

- The Agency has received 15,000 customer response cards and used them to improve customer service.
- The Forest Service and other Federal and State agencies have partnered to reduce costs and improve efficiency. In Oregon, the Bureau of Land Management and the Forest Service share offices, equipment, and people to provide a common-sense, “one-stop shopping” approach to land management and customer service.
- The Agency has redesigned the campground reservation system based on customer feedback from 1996. A record number of customers used the new system in 1997.
- The Forest Service has planned for a reduction in overall work force from about 43,000 full-time employees in 1993 to about 37,500 in 1999.

National Forest Foundation

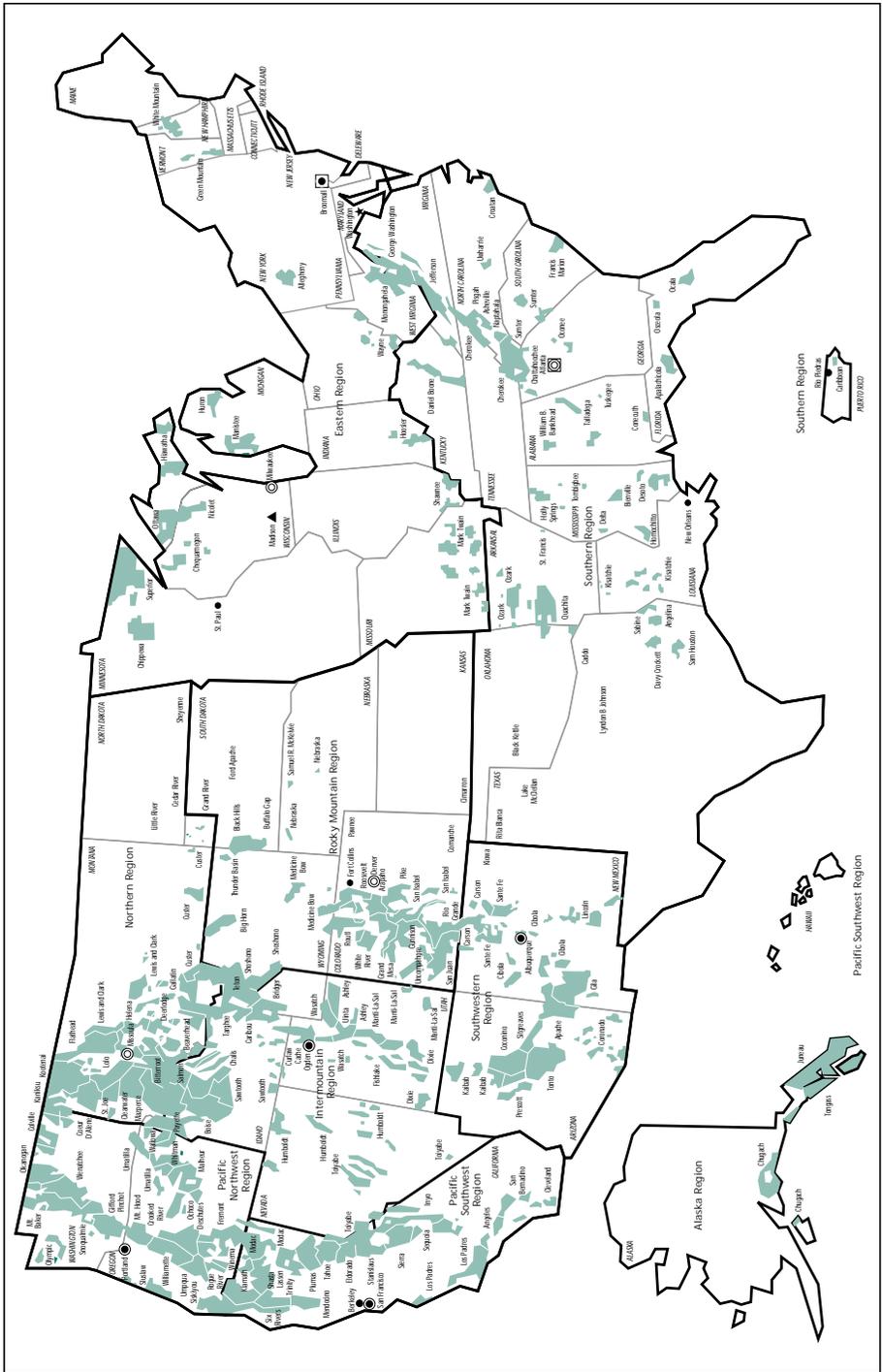
The National Forest Foundation was authorized by Congress in 1990 as a non-profit corporation to:

- Encourage and accept donations and gifts for the benefit of the Forest Service,
- Conduct activities that further the purposes of national forest and national grassland management,
- Encourage educational and other assistance that supports multiple use, research, cooperative forestry, and other programs administered by the Forest Service, and
- Promote cooperation among the Forest Service, the private sector, and other governmental and educational institutions.

During FY 1996, the Foundation helped the Forest Service expand its Challenge Cost-Share program by identifying and working with private sector partners. A “Firefighter Fund” has been established to provide financial assistance to firefighters who were severely injured in the 1994 fires and to the families of those men and women who were killed in the line of duty. A pilot program is underway to develop interactive kiosk technology and update interpretive exhibits at visitor information centers through corporate sponsorships and fund raising efforts. The foundation supported tree planting, watershed restoration, universal accessibility to national forests, and trail repair and maintenance, including \$50,000 for the Continental Divide Trail in the Rocky Mountains.

Figure 10-1.

Location of National Forests



Key Facts about the Forest Service

- *The entire Nation has about 1.6 billion acres of forest and range land, under all ownerships.*
- *The entire Nation has 736.7 million acres of forest land area, not including rangeland, under all ownerships; the owners/managers of this forest land are as follows:*

Federal Government: 249.1 million acres

- *Forest Service: 139.9 million acres*
- *Bureau of Land Management: 36.6 million acres*
- *National Park Service, Department of Defense, Department of Energy, & other Federal: 72.6 million acres*

Non-Federal total: 487.5 million acres

- *State: 54.7 million acres*
- *9.9 million private landowners: 422.3 million acres*
- *County and Municipal: 10.5 million acres*

- *There are 191.6 million acres of national forest land. This is 8.3 percent of the United States' land area, or about the size of Texas plus 10 percent. The Forest Service manages:*

- *National Grasslands: 3.9 million acres*
- *National Primitive Areas: 173,762 acres*
- *National Scenic-Research Areas: 6,630 acres*
- *National Wild & Scenic Rivers: 4,385 miles—95 rivers*
- *National Recreation Areas: 2.7 million acres*
- *National Game Refuges and Wildlife Preserves: 1.2 million acres*
- *National Monument Areas: 3.3 million acres*
- *National Historic Areas: 6,540 acres*
- *Congressionally Designated Wilderness: 34.6 million acres*
- *The Forest Service manages 155 national forests for multiple uses.*
- *The national forest trail system is the largest in the Nation, with more than 125,000 miles of trails for hiking, riding, and cross-country skiing.*
- *The Forest Service provides more recreational opportunities than any other Federal Agency. Visitors to national forests are attracted by:*
 - *5,885 campgrounds and picnic areas*
 - *328 swimming developments*
 - *1,222 boating sites*
 - *250 winter sports sites, including 120 downhill ski areas*
- *If all these sites were fully occupied at the same time, they would accommodate 1.8 million people.*
- *Minerals found on Forest Service lands provide more than \$3.3 billion in private sector revenue each year.*

Key Forest Service figures for 1995:

- *Recreation use: 330.3 million visitor days (1 visitor day equals 12 hours of recreation use)*
- *Lands burned by wildfire: 530,000 acres*
- *Insect and disease suppression: 1.7 million acres*
- *Watershed improvements: 35,500 acres*
- *Wildlife and fish habitat improvements: 242,761 acres*
- *Reforestation: 492,000 acres*
- *Livestock grazing: 9.3 million animal unit months*
- *Grazing allotments administered: 9,940*
- *Mineral operations processed: 9,157*
- *Timber sold: 3.1 billion board feet*
- *Timber harvested: 4.8 billion board feet (some had been sold in previous years)*
- *Road system: 377,800 miles*

National Forest System—Conservation and Multiple Use

Lands

Lands-related activities include land exchanges to protect and enhance the National Forest System, protecting boundaries and records, granting appropriate rights to others, and administering rights granted to or retained by other agencies, governments, and landowners.

Wildlife, Fish, and Rare Plants

In 1995, people made more than 86 million visits to national forests to fish, hunt, and view wildlife, fish and plants, with a total net value of nearly \$4.3 billion. More than \$1.7 billion in annual economic benefits result from recreational and commercial harvest of fish resources on National Forest System lands.

The Agency's threatened, endangered, and sensitive species program aims to conserve and restore habitat and thus avoid the need to list additional rare species. In partnership with other Federal agencies, State fish and wildlife agencies, and national conservation groups, habitat management efforts are currently underway for salmon, steelhead and cutthroat trout, spotted owl, marbled murrelet, and grizzly bear. Efforts to reintroduce species or increase their numbers are planned in collaboration with the U.S. Fish and Wildlife Service and State agencies for gray wolf, black-footed ferret, California condor, Mexican wolf, thick-billed parrot, and red-cockaded woodpecker.

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.*
- *The national forests and grasslands also provide:*
- *80 per cent 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*
- *Habitat for more than 280 species of threatened or endangered plants, fish, or wildlife.*

Partnerships

In 1995, more than 3,150 partners joined the Forest Service through the Challenge Cost-Share Program to complete more than 3,000 wildlife and fish habitat improvement projects on national forests and grasslands. Through these partnership efforts, many species have returned to habitats once abandoned. Fragile plant habitats have been identified and protected. Wetlands for waterfowl and other species have been improved by the construction of nesting islands and platforms. Fisheries have benefited from improved cover, construction of fish ladders and barriers, and restoration of watersheds.

Since 1986, wildlife and fish conservation partner contributions of labor, materials, expertise, and funds have approached \$106 million, more than matching Forest Service monetary contributions of over \$77 million.

Water, Soil, and Air

About 20 percent of the surface water supply in the United States flows from National Forest System watersheds. Three major goals of the Forest Service's watershed management programs are to (1) assure adequate yields of high-quality water, (2) sustain soil productivity, and (3) manage air quality within standards. The task of mapping all soils within the National Forest System, with the cooperation of the Natural Resources Conservation Service, is about 70 percent complete. The Forest Service improved 35,500 acres of watershed in FY 1995 with appropriated funds and an additional 14,000 acres from other funding sources.

Other significant activities include watershed analyses and watershed restoration work, especially in the Pacific Northwest; participating in water right adjudications in eight Western States; assessing water quality problems from abandoned mines located on national forests with assistance from States and other Federal agencies; and monitoring lichens, lakes, snow, vegetation, and the atmosphere to determine air pollution impacts to wilderness areas.

Key Facts about Water

- *There are approximately 3,200 watersheds on National Forest System lands.*
- *There are 902 municipal watersheds on National Forest System land, serving 25 million people.*
- *173 trillion gallons of water is supplied by the National Forest System to municipal watersheds annually.*
- *500 remote weather data collection platforms are used in agricultural, fire, weather, and streamflow forecasting.*
- *Emergency restoration of burned areas in FY 1995 covered more than 198,385 acres.*
- *88 wilderness areas, covering almost 15 million acres, are classified as Class I (special visibility protection) under the Federal Clean Air Act.*

Rangeland

National Forest System rangeland is managed to conserve the land and its vegetation while providing food for both livestock and wildlife. Forage production is a primary use of these lands. 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.

Key Facts about Rangeland

- *In FY 1995, the Forest Service administered almost 9,500 grazing allotments and provided 9.3 million animal unit months of livestock grazing. (An animal unit month is the amount of forage it takes to sustain a 1,000-pound animal or its equivalent for one month.)*

Energy and Minerals

Facilitating energy and mineral development on National Forest System lands, including development of private minerals underlying these lands, fosters economic development. Ecosystems are protected by requiring appropriate design, mitigation, and reclamation measures, and by monitoring/inspecting operations to ensure compliance. Reclaiming abandoned mines restores deteriorated ecosystems.

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 program is directed at obtaining these benefits while ensuring operations are conducted in an environmentally sound manner. In terms of the magnitude of the program, there are approximately 8 million acres leased for oil and gas, over 150,000 mining claims, about 7,000 mineral material pits and quarries, over 4,000 new operations proposed each year, and more than 25,000 operations to monitor and inspect. The largest coal mine in the United States is on National Forest System lands, and much of the

Nation's phosphate and lead production comes from National Forest System lands. The value of all energy and mineral production exceeds \$3.3 billion per year. Annual revenues are about \$200 million, 25-50 percent of which is returned to the States where production occurs.

Key Facts about the Forest Service Energy and Minerals Program

- 7 million acres where there is possibility for coal leasing (95 billion tons)
- 45 million acres where there is possibility for oil and gas leasing; 9 million acres leased
- Substantial geothermal energy potential
- World-class deposits of coal, copper, silver, lead, molybdenum
- Nation's largest carbon dioxide project (Bridger-Teton National Forest, WY)
- Nation's largest coal mine (Thunder Basin National Grasslands, WY)
- Western Hemisphere's only platinum mine (Custer National Forest, MT)
- Most lead production in the United States (Mark Twain National Forest, MO)
- World-class quartz crystals (Ouachita National Forest, AR)
- About 7,000 sand, gravel, and stone pits and quarries
- Approximately 4,000 new operations requiring review each year
- Over 25,000 existing operations requiring monitoring
- Nation's largest phosphate mines
- 55 percent of the Nation's production of lead
- Total value of energy and minerals produced exceeds \$3.3 billion per year
- Annual royalties to government exceed \$200 million
- Thousands of jobs created in rural communities
- Substantial effect on local tax bases
- One of the world's largest molybdenum deposits (Tongass National Forest, AK)
- The following resources are produced annually on National Forest System lands:
 - 12 million barrels of oil
 - 325 billion cubic feet of gas
 - 114 million tons of coal
 - 500 million pounds of lead
 - 200 million pounds of copper
 - 1 million ounces of gold
 - 20 million tons of sand and gravel

Timber

Only 26 percent of the national forests' 192 million acres can be classified as commercial forest land. Commercial forest land is available for and capable of producing crops of industrial wood. Commercial forests help furnish the Nation with the lumber and plywood needed for housing and industrial uses and pulp for paper products. Timber management involves preparing sales by selecting the means of harvest most appropriate for protecting the environment.

Passport in Time

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

Passport In Time volunteers have contributed more than \$2.5 million worth of time and effort to help preserve our Nation's history by:

- Restoring 45 historic structures,
- Stabilizing 11 National Register eligible sites,
- Evaluating 143 sites for inclusion in National Register of Historic Places,
- Working at 28 projects in wilderness, and
- Developing 12 heritage interpretive sites.

State and Private Forestry—Providing Assistance to Nonindustrial Private Landowners

The **Forest Stewardship Program** provides technical assistance to nonindustrial private forest landowners interested in managing their forests for multiple resources. Since 1990, over 100,000 landowners have enrolled in the program and stewardship plans have been prepared for more than 13.2 million acres of nonindustrial private forests.

The **Stewardship Incentives Program** provides cost-share assistance, in cooperation with State Foresters and the USDA's Farm Service Agency, to landowners implementing Forest Stewardship Landowner Plans on over 378,000 acres annually. This includes approximately 50,000 acres of tree planting annually. Since 1990, stewardship incentives practices have been implemented on more than 1.3 million acres, including over 140,000 acres of tree planting.

Forest Health Protection

The Forest Service offers technical and financial assistance to Federal agencies, American Indian tribes, and (through the State Foresters) to private landowners. It conducts insect and disease detection surveys on 175 million acres of Federal lands and 482 million acres of State and private lands in cooperation with State Foresters, and participates in a forest health monitoring program with the State Foresters. The Forest Service works with USDA's Animal and Plant Health Inspection Service to protect the Nation's forests from exotic insects and diseases. It also provides technical assistance in the safe and effective use of pesticides, shares the cost of insect and disease prevention and suppression projects with States, funds prevention and

Table 10-1

Number and Acres of Wildfires on lands protected by the National Forest System, 1995

State	Caused by People									
	Lightning		Equipment		Smoking		Campfire		Debris Burning	
	Acres	No.	Acres	No.	Acres	No.	Acres	No.	Acres	No.
Alabama	283	23		0	1	2	138	6	5	4
Alaska		3		0		3	8	25		6
Arizona	39,614	824	377	55	1,456	67	1,853	374	103	17
Arkansas	167	12	1	2	20	10	13	5	211	18
California	271	365	2,793	152	2,504	79	3,689	207	328	71
Colorado	782	128		0	56	13	8	54		3
Florida	1,106	27		4		0	10	8	7	8
Georgia	2	3		0	5	2		3	77	17
Idaho	2,169	674	4	6	13	15	36	64	11	15
Illinois		0		0		0	1	3	85	11
Indiana		0		0		0		2	6	1
Kansas	140	11		2		0		0		0
Kentucky	104	2	2	2	18	4	101	8	92	10
Louisiana		0		0		0	13	8	14	3
Maine		1		0		0		0		0
Michigan	212	5	1	5	7	4	25	11	10	33
Minnesota	2,388	40	4	9	2	5	3,387	53	7	24
Mississippi		0	2	3	27	3	19	3	160	16
Missouri	5	3	91	7	21	5	15	2	308	41
Montana	318	216	5	8	1	11	60	84	98	46
Nebraska	1,665	12		0		0		0		0
Nevada	7,805	47	4	16		1	461	26		1
New Hampshire		3		0		0	1	8		0
New Mexico	22,752	368	1	5	58	17	14,342	116	18	4
New York		0		0	1	2		0		0
North Carolina	12	5		1	23	6	86	5	13	20
North Dakota	40	1	2	1		0		0		0
Ohio		0		4	2	2		0	35	17
Oklahoma	5	2		2		0		1	14	6
Oregon	1,845	565	874	14	112	55	412	148	24	14
Pennsylvania		0		2		0		4		1
South Carolina	20	12		10	8	3	3	2	318	15
South Dakota	128	72		0	6	3	5	38	9	5
Tennessee	332	6	166	3	1	35	2	24	9	9
Texas	204	3		1	4	3	44	11	22	8
Utah	1,681	235	845	4	31	8	698	47		3
Vermont		0		0		0		1		0
Virginia	8	2		1	1,755	3	1	2		6
Washington	877	106	77	9	3	21	11	76	10	5
West Virginia	22	1		0		0		4		0
Wisconsin		5		3		3	21	4		5
Wyoming	422	65	188	3		3	3	23		0

¹ There were no fires reported on National Forest lands in Maine or New York

² National Forest acreage in Connecticut and Hawaii is research and/or experimental land only.

³ There are no National Forest lands in Delaware, Iowa, Maryland, Massachusetts, New Jersey, or Rhode Island.

Table 10-1 continued.

Number and Acres of Wildfires on lands protected by the National Forest System, 1995

<i>Railroad</i>		<i>Arson</i>		<i>Children</i>		<i>Total acres</i>		<i>Total no.</i>		<i>Total acres</i>		<i>Total no.</i>	
<i>Acres</i>	<i>No.</i>	<i>Acres</i>	<i>No.</i>	<i>Acres</i>	<i>No.</i>	<i>Acres</i>	<i>No.</i>	<i>Misc. caused by</i>	<i>Caused by</i>	<i>all causes</i>	<i>all causes</i>	<i>all causes</i>	<i>all causes</i>
								<i>people</i>	<i>people</i>				
21	1	755	64		0	107	9	1,026	86	1,309	109		
	0		1		0	1	2	10	37	10	40		
13	2	995	37	50	32	14,027	258	18,874	842	58,488	16,66		
1	1	1,448	131	20	1	76	18	1,788	186	1,955	198		
	1	4,843	187	13	59	5,667	417	19,837	1,173	20,107	1,538		
	2	2	2	12	2	419	20	497	96	1,278	224		
	0	941	31	3	5	44	18	1,005	74	2,111	101		
11	2	77	13		0	193	11	363	48	364	51		
	3	3,041	4		2	71	29	3,176	138	5,345	812		
	0	582	19		0		1	668	34	668	34		
	0	4	2		0		0	10	5	10	5		
	0		0		0	175	3	175	5	316	16		
	0	1,961	137	4	1	77	7	2,255	169	2,359	171		
16	2	1,600	77		0	178	13	1,820	103	1,820	103		
	0		0		0		0		1		1		
	1	89	11	4	8	36	6	172	84	384	84		
6	5	54	29	1	5	2	12	3,463	182	5,851	182		
1	1	1,186	104		0	1,939	46	3,333	176	3,333	176		
50	1	6,620	233	66	2	235	9	7,405	303	7,410	303		
	9		6		3	236	37	400	420	718	420		
	0		0		0		0		12	1,665	12		
3	2	228	7	2	8	26	8	724	69	8,529	116		
	0		1		0	4	2	5	11	6	14		
	0	239	14	70	3	3,060	39	17,787	198	40,540	566		
	0		1		0		0	1	3	1	3		
2	1	860	37		1	38	7	1,021	78	1,033	83		
	0		0		0		0	2	1	42	2		
	0	30	22		0	3	2	70	47	70	47		
108	6	1,078	36		2	9	5	1,210	58	1,215	60		
4	2	667	35	1	5	69	67	2,164	340	4,008	905		
	0		0		0		4		11		11		
	1	161	47		0	173	15	663	105	683	105		
	0	1	3	1	1	4	2	25	124	154	124		
	0	835	54		0	46	82	1,106	82	1,439	82		
	0	421	31		0	12	64	503	64	707	64		
	0	1	17		7	211	336	1,786	336	3,467	336		
	0		0		0	1	2	1	2	1	2		
	0	3,045	26		2	22	51	4,822	51	4,830	51		
	0		1		1	10	257	111	257	988	257		
	0		0		0		6		6		6		
	1		1		0	5	22	26	22	48	22		
	0	66	3		0	2	102	259	102	681	102		

¹ There were no fires reported on National Forest lands in Maine or New York² National Forest acreage in Connecticut and Hawaii is research and/or experimental land only.³ There are no National Forest lands in Delaware, Iowa, Maryland, Massachusetts, New Jersey, or Rhode Island.

suppression projects on Federal lands, and evaluates and applies new, more efficient and environmentally sensitive technologies for forest health protection.

Fire Management

The Forest Service works in cooperation with States and their local wildland fire protection agencies to protect State and private lands nationwide. Fire protection and emergency firefighting programs protect 192 million acres of National Forest System lands and an additional 20 million acres of State and private lands under protection exchanges and agreements.

Federal Excess Personal Property

In 1995, the Forest Service loaned used Federal property to State Foresters for rural and wildland fire protection; this property had an original acquisition cost of \$189 million. Former military cargo trucks that are built into tanker trucks represent a large portion of the property, along with aircraft, heavy equipment, and shop machinery.

Rural Community Fire Protection

This program to organize, train, and equip rural fire departments in communities with populations under 10,000 is funded at \$3.5 million annually. In 1995, these funds were awarded in over 3,000 grants that attracted \$6.4 million in matching fire department funds. More than 80 percent of the money funded purchases of equipment such as communications devices, nozzles, hoses, and protective clothing.

Fire Season

In 1995, over 9,000 fires burned approximately 200,000 acres of National Forest System lands. The annual average is 11,500 fires and 725,000 acres.

Fuels Treatment

In 1995, over 570,000 acres of National Forest System lands received treatment, such as thinning and prescribed burns, for forest fuels—vegetation such as brush, grass, and small trees. This compares to an average annual program of 358,000 acres. Fuels treatment benefits the health of the forest and can prevent catastrophic wildfire .

Rural Community Assistance

The Forest Service implements the national initiative on rural development in coordination with USDA's Rural Development area and State rural development councils. The goal is to strengthen rural communities by helping them diversify and expand their economies through the wise use of natural resources. Through economic action programs, the Forest Service provides technical and financial assistance to more than 850 rural communities that are adversely affected by changes in availability of natural resources or in natural resource policy.

Pacific Northwest rural community assistance provides economic adjustment assistance to almost 150 communities affected by the President's Forest Plan for the Pacific Northwest. This community assistance is part of a larger, multi-Agency effort to target resources for rural areas with acute economic problems.

Table 10-2

National Forest System lands administered by the Forest Service as of September 30, 1996

<i>State, Commonwealth, or Territory</i>	<i>National forests, purchase units, research areas, and other areas</i>	<i>National grasslands</i>	<i>Land utilization projects</i>	<i>Total</i>
			<i>Acres</i>	
Alabama	663,123	0	40	663,163
Alaska	21,971,245	0	0	21,971,245
Arizona	11,251,424	0	0	11,251,424
Arkansas	2,553,892	0	0	2,553,892
California	20,617,261	18,425	0	20,635,686
Colorado	13,876,192	628,419	0	14,504,611
Connecticut	24	0	0	24
Florida	1,146,668	0	0	1,146,668
Georgia	864,993	0	0	864,993
Hawaii	1	0	0	1
Idaho	20,410,527	47,756	0	20,458,283
Illinois	276,676	0	0	276,676
Indiana	194,264	0	0	194,264
Kansas	0	108,175	0	108,175
Kentucky	691,963	0	0	691,963
Louisiana	603,786	0	0	603,786
Maine	53,040	0	0	53,040
Michigan	2,855,899	0	959	2,856,858
Minnesota	2,837,240	0	0	2,837,240
Mississippi	1,157,013	0	0	1,157,013
Missouri	1,493,198	0	0	1,493,198
Montana	16,879,677	0	0	16,879,677
Nebraska	257,653	94,480	0	352,133
Nevada	5,818,569	0	0	5,818,569
New Hampshire	724,049	0	0	724,049
New Mexico	9,190,265	36,417	240	9,326,922
New York	15,825	0	0	15,825
North Carolina	1,243,139	0	0	1,243,139
North Dakota	743	1,105,030	0	1,105,773
Ohio	227,239	0	0	227,239
Oklahoma	257,395	46,286	0	303,681
Oregon	15,552,932	111,348	856	15,665,136
Pennsylvania	513,264	0	0	513,264
Puerto Rico	27,831	0	0	27,831
South Carolina	612,023	0	0	612,023
South Dakota	1,145,010	868,156	0	2,013,166
Tennessee	633,481	0	0	633,481
Texas	637,280	117,620	0	754,900
Utah	8,112,564	0	0	8,112,564
Vermont	359,289	0	0	359,289
Virgin Islands	147	0	0	147
Virginia	1,656,282	0	0	1,656,282
Washington	9,175,831	0	738	9,176,569
West Virginia	1,032,573	0	0	1,032,573
Wisconsin	1,520,464	0	0	1,520,464
Wyoming	8,687,871	560,166	0	9,248,037
Total	187,799,825	3,842,278	2,833	191,644,936

Table 10-3.

Payment to States from national forest receipts—fiscal years 1994-96¹

<i>State, Commonwealth, or Territory</i>	<i>FY 1996</i>	<i>FY 1995</i>	<i>FY 1994</i>
	<i>Dollars</i>		
Alabama	2,049,877.80	1,468,155.91	1,271,055.32
Alaska	5,905,519.94	7,600,541.26	8,782,012.16
Arizona	1,631,749.08	3,182,123.93	3,949,883.28
Arkansas	6,648,382.02	4,938,171.81	4,535,988.40
California	36,157,525.82	43,045,670.58	50,981,328.44
Colorado	5,955,613.62	5,584,256.33	6,318,890.15
Florida	1,066,315.90	1,334,477.12	1,068,081.49
Georgia	907,778.79	758,829.26	892,851.64
Idaho	17,457,711.74	15,031,321.37	25,227,816.58
Illinois	27,727.21	32,531.32	37,588.40
Indiana	7,410.94	13,755.32	18,228.06
Kentucky	494,031.96	311,288.83	446,667.89
Louisiana	2,735,547.25	2,174,763.33	2,577,223.55
Maine	34,773.87	33,068.56	32,800.47
Michigan	2,384,195.64	2,504,904.39	1,964,052.45
Minnesota	3,179,462.34	2,977,331.33	2,818,868.30
Mississippi	8,276,153.99	7,224,011.21	5,928,308.80
Missouri	1,231,668.46	1,170,273.33	1,235,858.48
Montana	9,383,236.30	10,555,715.38	14,482,280.68
Nebraska	30,563.25	36,887.86	67,973.60
Nevada	298,540.38	322,014.89	520,368.09
New Hampshire	510,233.26	485,115.81	480,777.36
New Mexico	652,646.23	1,102,857.41	1,458,715.36
New York	6,375.28	5,776.98	7,607.03
North Carolina	692,308.54	941,657.23	678,553.50
North Dakota	82.02	122.88	94.23
Ohio	11,399.70	15,554.61	30,109.51
Oklahoma	883,416.06	643,567.28	595,042.78
Oregon	95,238,952.66	109,647,413.38	119,791,067.39
Pennsylvania	6,207,364.12	5,362,116.42	5,301,759.86
Puerto Rico	20,837.85	14,555.48	25,571.76
South Carolina	960,281.44	1,359,265.06	1,586,032.17
South Dakota	2,349,598.42	2,839,734.94	2,631,316.84
Tennessee	319,484.79	441,952.31	385,048.53
Texas	4,337,308.72	2,893,393.24	3,599,206.19
Utah	1,831,244.84	1,553,366.88	2,373,290.67
Vermont	256,960.60	177,634.44	166,768.17
Virginia	822,089.27	996,568.42	820,206.58
Washington	29,429,025.66	30,089,073.00	31,913,563.22
West Virginia	1,860,935.47	1,403,962.13	761,339.86
Wisconsin	1,621,386.26	1,327,757.01	1,206,337.52
Wyoming	1,844,048.53	1,881,106.70	2,191,880.96
Total	255,719,766.02	273,482,644.93	309,162,415.72

¹Data Source: All Service Receipts - ASR-09-3.

Fire Facts USDA Forest Service

■ Number of fires:	Average	1995	
Less than 10 acres	10,352	8,205	
10 to 999 acres	1,051	945	
1,000+ acres	82	54	
Total	11,485	9,204	
■ Major causes of fires:	Average % of starts	Average % of acres burned	
Lightning	51	57	
Human caused	49	43	
■ Acres burned:	Average	1995	
National Forest protected lands	725,265	218,993	
■ Appropriations:	1994	1995	
Presuppression and fire use	\$276,407,000	\$295,295,000	
Emergency suppression expenditures	\$686,000,000	\$224,300,000	
Total	\$519,595,000	\$962,407,000	
State and private appropriations	\$17,148,000	\$13,689,000	
■ Natural Fuels Treatment:	Average	1994	1995
Acres treated	357,974	384,707	90,266
Program cost	\$10,704,000	\$12,696,000	\$16,406,000
■ USFS Personnel on Wildfires:	1994	1995	
Fire Management (full time)	1,714	1,633	
Fire Management (part time)	1,843	1,789	
Fire Management (temporary)	5,446	5,526	
Other FS personnel	27,897	4,195	
Emergency Hires (AD)	38,858	13,973	
Hotshot Crews	53	53	
Smokejumpers	290	290	
Helitack	200	200	
Rowpellers	240	240	

Urban and Community Forestry

The Forest Service provides technical and financial assistance to more than 7,200 cities and communities in all States, the District of Columbia, and Puerto Rico for the purpose of building local capacity to manage natural resources.

Natural Resource Conservation Education (NRCE)

The Forest Service supports a lifelong learning process that promotes the understanding of ecosystems and natural resources—their relationships, conservation, use, management, and values to society. Our large partnership base assists the NRCE program in about 200 projects across the country each year, reaching over 200,000 young people and 10,000 teachers. When television is added, NRCE reaches 5 million people. The program includes support for Project Learning Tree, which reaches 400,000 teachers.

Smokey Bear. In 1994, Smokey Bear celebrated 50 years of forest fire prevention. The Forest Service began a forest fire prevention program during World War II, and in 1944, a bear was introduced as the program symbol. In 1950, a bear cub survived a forest fire in the Lincoln National Forest, New Mexico, and after being nursed back to health, came to live in the National Zoo in Washington, DC, as the living fire prevention symbol.

Woodsy Owl. Woodsy Owl is a colorful and fanciful character who was designed to be especially appealing to young children. Woodsy Owl is recognized by over 83 percent of all American households and is America's leading symbol for environmental improvement. Woodsy was created in response to increased public awareness of environmental problems during the late 1960's and early 1970's. The Woodsy Owl campaign was officially launched by the Forest Service on September 15, 1971. In June 1974, Congress enacted a law establishing "Woodsy Owl"—with his slogan "Give a hoot! Don't pollute!"—as a "symbol for a public service campaign to promote wise use of the environment and programs which foster maintenance and improvement of environmental quality." Woodsy's message and appearance have recently been revitalized. He now sports a backpack, hiking shoes, and field pants, and a new slogan builds on his previous message: "Lend a hand—care for the land!"

Research

Forests are critical to the global environment and the global economy. They are the source of food, raw materials, shelter, and income for millions, and they provide sanctuary for people and habitat for wildlife. Forests filter and protect water supplies and absorb carbon dioxide from the atmosphere. Agency research is being conducted in areas requiring urgent policy and management action, including studies related to sustainable development, biodiversity, economic and social values, ecological management, and forest health.



Smokey Bear



Woodsy Owl

Table 10-4.

State summary of total recreation use on National Forest System lands by activity—fiscal year 1996

State, Commonwealth or Territory ¹	Camping picknicking & swimming	Mechanized travel & viewing scenery	Hiking, Horse- back riding & water travel	Winter Sports	Resorts, cabins & organization camps	Hunting	Fishing	Nonconsumptive		Other recreation activities	Total	Total visits ² 1,000 visits
								fish & wildlife use	wildlife use			
Alabama	175.0	125.0	67.0	0.0	0.0	162.0	69.0	7.0	84.0	689.0	1,406.0	
Alaska	368.0	4,777.0	368.0	89.0	181.0	145.0	510.0	45.0	479.0	6,962.0	17,181.0	
Arizona	7,911.0	15,731.0	3,109.0	169.0	1,006.0	1,052.0	1,031.0	558.0	4,433.0	35,500.0	72,044.0	
Arkansas	619.0	555.0	215.0	0.0	42.0	510.0	106.0	28.0	135.0	2,210.0	5,909.0	
California	18,824.0	25,492.0	5,915.0	4,246.0	7,696.0	1,742.0	3,356.0	416.0	3,478.0	71,165.0	195,880.0	
Colorado ⁴	6,079.8	10,212.1	2,726.9	6,525.1	766.1	1,756.4	1,697.5	176.5	1,030.3	30,970.7	60,488.1	
Florida	1,536.0	459.0	178.0	0.0	213.0	243.0	183.0	22.0	126.0	2,960.0	8,878.0	
Georgia	832.0	1,004.0	386.0	2.0	21.0	345.0	199.0	37.0	99.0	2,925.0	8,332.0	
Idaho	4,472.0	4,506.0	1,421.0	821.0	610.0	1,154.0	1,071.0	201.0	1,109.0	15,365.0	23,201.0	
Illinois	262.0	443.0	190.0	0.0	9.0	140.0	44.0	19.0	81.0	1,188.0	1,034.0	
Indiana	242.0	102.0	119.0	2.0	18.0	104.0	55.0	6.0	36.0	684.0	525.0	
Kansas	17.0	27.0	3.0	0.0	1.0	9.0	14.0	3.0	12.0	86.0	184.0	
Kentucky	685.0	755.0	283.0	4.0	8.0	217.0	230.0	14.0	130.0	2,326.0	5,670.0	
Louisiana	198.0	161.0	29.0	0.0	24.0	114.0	29.0	5.0	39.0	599.0	1,748.0	
Maine	31.0	65.0	19.0	4.0	6.0	9.0	16.0	2.0	6.0	158.0	1,000.0	
Michigan	1,537.0	1,676.0	302.0	76.0	115.0	538.0	433.0	26.0	163.0	4,866.0	9,997.0	
Minnesota	1,983.0	1,116.0	886.0	112.0	441.0	366.0	897.0	35.0	146.0	5,982.0	12,833.0	
Mississippi	318.0	562.0	153.0	0.0	27.0	487.0	110.0	16.0	155.0	1,828.0	3,827.0	
Missouri	983.0	616.0	356.0	0.0	11.0	278.0	145.0	20.0	109.0	2,518.0	7,299.0	
Montana	2,515.0	4,862.0	1,411.0	776.0	444.0	1,221.0	838.0	174.0	1,254.0	13,495.0	31,836.0	
Nevada	183.0	59.0	25.0	1.0	8.0	12.0	5.0	4.0	23.0	320.0	528.0	
Nevada	1,090.0	1,175.0	447.0	350.0	154.0	199.0	92.0	78.0	272.0	3,857.0	21,423.0	
New Hampshire	656.0	1,310.0	473.0	548.0	233.0	43.0	30.0	16.0	45.0	3,354.0	5,500.0	

Table 10-5.

Acres of State and private lands burned—calendar year 1995

<i>State, Commonwealth, or Territory</i>	<i>Lightning fires</i>	<i>Person-caused fires</i>	<i>Total fires</i>	<i>Acres burned</i>
		<i>Number</i>		
Alabama	45	4,436	4,481	39,887
Alaska	29	298	327	16,585
Arizona	105	691	796	63,075
Arkansas	58	3,400	3,458	52,715
California	163	6,282	6,445	118,106
Colorado	245	1,979	2,224	32,011
Connecticut	0	0	0	0
Delaware	3	30	33	418
Florida	468	2,875	3,343	48,591
Georgia	242	7,853	8,095	24,572
Guam	0	622	622	5,726
Hawaii	0	217	217	9,568
Idaho	151	125	276	533
Illinois	1	814	815	6,070
Indiana	17	3,242	3,259	25,934
Iowa	0	1,244	1,244	4,446
Kansas	139	3,200	3,339	71,071
Kentucky	6	2,091	2,097	67,828
Louisiana	6	3,567	3,573	37,538
Maine	154	900	1,054	1,165
Maryland	12	1,052	1,064	5,376
Massachusetts	15	6,364	6,379	8,623
Michigan	22	532	554	4,394
Minnesota	23	1,121	1,144	19,840
Mississippi	4	3,479	3,483	39,888
Missouri	24	3,156	3,180	55,173
Montana	155	214	369	5,724
Nebraska	191	1,072	1,263	103,925
Nevada	23	91	114	11,522
New Hampshire	13	466	479	458
New Jersey	9	1,999	2,008	22,597
New Mexico	164	483	647	53,531
New York	17	391	408	8,546
North Carolina	48	5,200	5,248	20,897
North Dakota	27	229	256	2,590
Ohio	1	1,026	1,027	6,594
Oklahoma	11	2,526	2,537	89,967
Oregon	252	715	967	4,870
Pennsylvania	3	1,031	1,034	3,459
Puerto Rico	0	19,485	19,485	13,662
Rhode Island	0	132	132	120
South Carolina	80	3,487	3,567	17,215
South Dakota	44	449	493	31,425
Tennessee	24	3,445	3,469	42,032
Texas	22	1,511	1,533	18,879
Utah	253	326	579	35,733
Vermont	7	232	239	439
Virginia	16	1,640	1,656	9,240
Washington	115	771	886	4,036
West Virginia	16	1,217	1,233	42,540
Wisconsin	38	1,699	1,737	2,461
Wyoming	165	432	597	12,679
Virgin Islands	0	53	53	107
Total	3,626	109,892	113,518	1,324,381

Since establishment in 1876, Forest Service Research has developed into the world's single largest source of natural resource information. It includes:

- More than 600 scientists whose work is aimed at the productivity, health, and diversity of the temperate, boreal, and tropical forests,
- Seven Regional Experiment Stations and one National Forest Products Laboratory comprising 77 research lab locations, many collocated with universities, and
- Gateways for collaborative research in the Tropics, through the International Institute of Tropical Forestry in Puerto Rico and the Institute of Pacific Islands Forestry in Hawaii.

The Forest Service Research program provides:

- More than 2,700 publications per year, and numerous presentations at symposia and workshops,
- Collaboration with university, industry, and other scientists; nongovernmental organizations; managers; and policy makers for work that transcends the abilities of any single organization,
- More than \$20 million per year in domestic grants, cooperative agreements, and contracts for research partnerships, and
- Key databases for enhancing forest health, productivity, and conservation.

The Forest Service provides scientific and technological information to manage the Nation's forests and associated ecosystems. This includes studies in vegetation management, watersheds, fisheries, wildlife, forest products and recycling, insects and diseases, economics, forest and rangeland ecology, silviculture, fire ecology, fire prevention, ecosystem functioning, and recreation.

Priority items include:

- Forest inventory and analysis across the United States and forest health monitoring in 18 States,
- Global change research, to learn how climate change interacts with pollution, drought, and forest health,
- Recycling and wood use, to solve technical problems that hinder wastepaper recycling and to develop new products from agricultural and wood fibers and byproducts, and
- Large-scale ecosystem studies, for example on restoring mixed-oak forests in southern Ohio, evaluating impacts of silvicultural treatment on biological diversity in northern hardwood forests, and protecting watersheds, riparian zones, and biological diversity in the Rio Grande Basin.

International Forestry

International cooperation in forestry is crucial in sustaining the ecological and commercial viability of global forest resources. The Forest Service is a global conservation leader and the U.S. Government's main advocate for scientifically based sustainable forest management.

The United States is the world's largest importer of wood, and it exports more than \$18 billion worth of wood products each year. The Forest Service, industry, and international counterparts are developing international policies and guidelines to reduce barriers to U.S. exports. The Forest Products Laboratory and its Canadian counterparts have addressed product standards which had previously inhibited trade. As a result, tariffs on U.S. plywood have been reduced 50 percent and exports to Canada have increased steadily.

The Forest Service has been instrumental in preventing the Asian gypsy moth from entering the United States and has cooperated with scientists from the People's Republic of China in finding natural predators for an imported pest, the woolly adelgid, which threatens eastern hemlock in 10 U.S. States and cannot be controlled by pesticides.

In cooperation with Latin American countries, the Forest Service protects the habitat of migratory birds—250 out of 750 bird species in the United States migrate to other countries.

International cooperation in forestry has human health implications. For example, vincristine, a compound derived from a tropical dry forest plant from Madagascar, has improved the survival odds for thousands who have Hodgkin's disease or childhood leukemia.

The Forest Service develops and shares new technology in utilizing forests, monitoring forest resources, and understanding the forests' role in global climate change with other countries.

The support that International Forestry's Disaster Assistance Support Program gives to international disaster prevention, preparedness, and response is critical to our country's ability to save lives and alleviate human suffering inflicted by natural and human-caused global disasters.

Human Resource Programs

Human Resource 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 1995, these programs included more than 107,000 participants and accomplished over \$127 million in conservation work on Forest Service lands.

Through an agreement with the U.S. Department of Labor, the Forest Service operates eighteen **Job Corps Civilian Conservation Centers** on Forest Service lands. 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, 15 co-ed
- 8,747 enrolled, ages 16-24
- \$91.4 million budget
- \$22.1 million work accomplishment
- 93 percent placed
- Average starting salary, approximately \$6.10 per hour
- 44 percent minorities

The **Senior Community Service Employment Program** is designed to provide useful part-time employment and training for persons age 55 and over.

Key facts about the Senior Community Service Employment Program:

- 5,554 older workers participated
- \$26.8 million budget
- \$40.8 million work accomplishment
- Only Federal Agency among 10 national sponsors
- 41 percent females
- 18.4 percent placed in unsubsidized employment
- \$1.52 return on dollar invested

In the **Youth Conservation Corps** summer employment program, persons aged 15-18 accomplish projects that further the development and conservation of the United States' natural resources.

Key facts about the Youth Conservation Corps:

- 712 enrollees, ages 15-18
- \$1.3 million operating costs
- \$2.1 million work accomplishment
- \$1.62 return on dollar invested
- 41 percent females

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 :

- 82,349 volunteers have participated, (including 86 international volunteers and 169 Touch America Project volunteers, age 14-17)
- \$38.4 million work accomplishment
- 34 percent females
- Over 1 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**

- *9,636 participants*
- *\$23.7 million work accomplishment*
- *20 percent females*
- *31 percent minorities*
- *11 agreements on national forests with the Federal Bureau of Prisons*

Through a partnership with the National Forest Foundation, the Forest Service operated three **Youth Forest Camps** during the summer of 1995. These camps provided jobs, work training, and environmental education for persons age 14-20.

■ **Key Facts About Youth Forest Camps**

- *83 participants*
- *Greater than \$200,000 work accomplishment*
- *3 camps operated (Oregon, Virginia, and Colorado)*
- *36 percent females*
- *55 percent minorities*

Law Enforcement and Investigations

The objective of the Forest Service law enforcement program is to serve people and protect natural resources and property within the authority and jurisdiction of the Forest Service. The program focuses on activities such as vandalism, archaeological resource violations, timber theft, wildland arson, and the cultivation and manufacture of illegal drugs.

Forest Service drug control efforts continue to focus on the detection, apprehension, and prosecution of persons responsible for illegal drug activities on the forests. Drug enforcement efforts resulted in the seizure of several million dollars' worth of assets and the destruction of several billion dollars' worth of drugs.

In FY 1995, 520 cooperative law enforcement agreements allowed the Forest Service to cooperate with State and local law enforcement agencies and with other Federal agencies to increase the protection and service to forest visitors. About 190 drug control agreements were set up between the Forest Service, State and local law enforcement agencies, and other Federal agencies or task forces to cooperate in eliminating illegal drug activities on the National Forest System.

Key facts about law enforcement and investigations:

- *Over 138,000 incidents or violations of Federal laws and regulations were reported. These violations resulted in many millions of dollars in damages and losses to National Forest System property and resources.*
- *Nearly 264,299 cannabis plants were eradicated from 5,742 sites on the national forests.*
- *2,095 individuals were arrested for illicit controlled-substance production and distribution on National Forest System land.*
- *About 162 special agents and 485 full-time uniformed law enforcement officers performed investigation and enforcement activities that are unique to the National Forest System and its resources.*

■ **Natural Resources Conservation Service—A Productive Nation in Harmony with a Quality Environment**

Introduction

As USDA's lead Agency for conservation technical assistance, the Natural Resources Conservation Service (NRCS) works closely with other USDA agencies involved in conservation, including the Farm Service Agency (FSA); Agricultural Research Service; Forest Service; and the Cooperative State Research, Education, and Extension Service. Through these agencies, USDA administers a wide range of programs to solve this country's natural resource problems as they affect private lands in agricultural and other uses.

Our well-being depends on healthy, productive, and diverse ecosystems 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. If you stop erosion, for example, you also enhance soil productivity and protect water and air quality. Improving the environment can enhance the economic future of communities throughout the United States.

The mission of NRCS is to provide leadership and administer programs to help landowners and land users to conserve, improve, and sustain our natural resources and the environment, while enabling the United States to continue as the world's preeminent producer of food and fiber.

A Partnership Approach to Resource Conservation

For six decades NRCS employees have worked side-by-side with landowners, conservation districts, 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, going beyond soil to an understanding of how all natural resources—soil, water, air, plants, 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 health 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.

Conservation is the work of many—no one can do it alone. NRCS relies on many partners to help set conservation goals, work with people on the land, and provide services. In addition to local conservation districts, State conservation agencies, and other State and Federal agencies, the partners include NRCS Earth Team volunteers, AmeriCorps members, agricultural and environmental groups, and professional societies.

NRCS Programs

Through various programs, NRCS provides conservation technical assistance to land users, communities, units of State and local government, and other Federal agencies in planning and implementing natural resource solutions to reduce erosion, improve soil and water quantity and quality, improve and conserve wetlands, enhance fish and wildlife habitat, improve air quality, improve pasture and range conditions, reduce upstream flooding, and improve woodlands. The purpose is to sustain agricultural productivity and protect and enhance the natural resource base. This assistance is based on voluntary local landowner cooperation and recognizes the value of educational, technical, and financial assistance.

Conservation Provisions of the 1996 Farm Bill

The conservation provisions of the Federal Agriculture Improvement and Reform Act of 1996—also known as the 1996 Farm Bill—simplified existing conservation programs and improved their flexibility and efficiency. The bill also created new programs to address high-priority environmental protection goals.

The 1996 Farm Bill authorized more than \$2.2 billion in additional funding for conservation programs, extended the Conservation Reserve Program and Wetland Reserve Program, and created new initiatives to improve natural resources on America's private lands.

Environmental Conservation Acreage Reserve Program

The Environmental Conservation Acreage Reserve Program (ECARP) encompasses the FSA's Conservation Reserve Program (CRP) and NRCS's Wetlands Reserve Program (WRP) and Environmental Quality Incentives Program (EQIP). Under ECARP, the Secretary of Agriculture may designate watersheds, multistate areas, or regions of special environmental sensitivity as conservation priority areas. These areas may be eligible for special assistance to get them into compliance with nonpoint source pollution requirements of the Clean Water Act and other Federal and State environmental laws and to meet other conservation needs.

Conservation Reserve Program

The Conservation Reserve Program (CRP), which is administered by FSA, with technical assistance given by NRCS, protects highly erodible and environmentally sensitive lands with grass, trees, and other long-term cover. Now under CRP:

- Up to 36.4 million acres can be enrolled at any one time;
- New enrollments must focus on the most environmentally sensitive land;
- Expired or terminated contracts may be replaced with new enrollments; and
- Landowners who entered into a contract before January 1, 1995, may terminate contracts after giving written notice. Contracts must have been in effect at least 5 years and meet other eligibility criteria.

Wetlands Reserve Program

The Wetlands Reserve Program (WRP) is a voluntary program to restore and protect wetlands on private property. It is an opportunity for landowners to retire marginal agricultural land in exchange for receiving financial incentives to enhance wetlands.

Congress authorized WRP with the Food Security Act of 1985 and amended it in the 1990 and 1996 Farm Bills. NRCS administers the program in consultation with other Federal agencies.

Landowners who choose to participate in WRP may sell a conservation easement or enter into a cost-share restoration agreement with USDA to restore and protect wetlands. The landowner voluntarily limits future use of the land, yet retains private ownership. The landowner and NRCS develop a plan for the restoration and maintenance of the wetland.

The program offers landowners three options: permanent easements, 30-year easements, and restoration cost-share agreements of a minimum 10-year duration.

Permanent Easement. This is a conservation easement in perpetuity. Easement payment will be the lesser of: the agricultural value of the land, an established payment cap, or an amount offered by the landowner. In addition to paying for the easement, USDA pays 100 percent of the costs of restoring the wetland.

30-Year Easement. This is a conservation easement lasting 30 years. Easement payments are 75 percent of what would be paid for a permanent easement. USDA also pays 75 percent of restoration costs.

Restoration Cost-Share Agreement. This is an agreement (generally for a minimum of 10 years in duration) to re-establish degraded or lost wetland habitat. USDA pays 75 percent of the cost of the restoration activity. This does not place an easement on the property. The landowner provides the restoration site without reimbursement.

Other agencies and private conservation organizations may provide additional assistance for easement payment and wetland restoration costs as a way to reduce the landowner's share of the costs. Such special partnership efforts are encouraged.

States were authorized to begin a continuous sign-up as of October 1, 1996. To offer a conservation easement, the landowner must have owned the land for at least 1 year prior to enrolling the land in the program unless the land was inherited or the landowner can prove the land was not obtained for the purpose of enrolling it in the program. To participate in a restoration cost-share agreement, the landowner must show evidence of ownership.

To be eligible for WRP, land must be restorable and be suitable for wildlife benefits. This includes:

- Wetlands farmed under natural conditions;
- Farmed wetlands;
- Prior converted cropland;
- Farmed wetland pasture;
- Farmland that has become a wetland as a result of flooding;
- Rangeland, pasture, or production forestland where the hydrology has been significantly degraded and can be restored;
- Riparian areas which link protected wetlands;
- Lands adjacent to protected wetlands that contribute significantly to wetland functions and values; and
- Previously restored wetlands (Conservation Reserve Program [CRP] land is eligible if it meets WRP requirements).

Ineligible land includes wetlands converted after December 23, 1985; lands with timber stands established under a CRP contract; Federal lands; and lands where conditions make restoration impossible.

New Programs Authorized

The 1996 Farm Bill created new initiatives to improve natural resources on America's private lands:

Environmental Quality Incentives Program

The Environmental Quality Incentives Program (EQIP) was established in the 1996 Farm Bill to provide a single, voluntary conservation program for farmers and ranchers who face serious threats to soil, water, and related natural resources. It provides technical, financial, and educational assistance.

EQIP also represents USDA's commitment to streamlining and improving its services. USDA combined four of its conservation programs into EQIP: the Agricultural Conservation Program, Water Quality Incentives Program, Great Plains Conservation Program, and the Colorado River Basin Salinity Control Program.

NRCS has leadership for EQIP. It works with FSA to set the program's policies, priorities, and guidelines. Conservation districts and FSA county committees have important roles in implementing the program at the local level. State Technical Committees offer advice on establishing EQIP activities at the State level.

EQIP will:

- Focus on conservation priority areas where there are significant natural resource problems;
- Provide technical assistance and up to 75 percent of the costs of applying conservation practices;
- Give high priority to assisting areas where State or local governments also offer assistance or where conservation practices will help meet water quality objectives; and
- Be administered through multiyear contracts based on conservation plans.

EQIP was funded at \$130 million in fiscal year 1996 and \$200 million thereafter until 2002. Fifty percent of funding is marked for livestock-related conservation practices. Total cost shares and incentive payments to any person may not exceed \$10,000 for any fiscal year. There is a \$50,000 limit for multiyear contracts.

Wildlife Habitat Incentives Program

The Wildlife Habitat Incentives Program (WHIP) helps participants develop and improve wildlife habitat on private lands. WHIP is authorized to provide cost sharing to participants to offset expenses incurred for developing habitat for fish and wildlife. NRCS administers the program. The Chief of NRCS may implement WHIP in any of the 50 States, the District of Columbia, the Commonwealth of Puerto Rico, Guam, the U.S. Virgin Islands, American Samoa, the Commonwealth of the Northern Mariana Islands, and the Trust Territories of the Pacific.

WHIP will provide cost sharing to develop habitat for upland and wetland wildlife, threatened and endangered species, fish, and other types of wildlife. Funds for cost sharing total \$50 million to the year 2002.

Under WHIP, participants or leasees who have a lease for the duration of the contract agree to implement a wildlife habitat development plan for lands that are made available, without cost, to NRCS. In turn, NRCS agrees to provide cost-share assistance for the initial implementation of wildlife habitat development practices. In some States, other wildlife agencies or nongovernment organizations may provide expertise or additional funding to carry out a project.

Farmland Protection Program

The Farmland Protection Program provides funds to help purchase development rights to keep productive farmland in use. Working through existing programs, USDA joins with State, tribal, or local governments to acquire conservation easements or other interests from landowners. USDA provides up to 50 percent of the costs of purchasing the easements. To qualify, farmland must: be part of a pending offer from a State, tribe, or local farmland protection program; be privately owned; have a conservation plan; be large enough to sustain agricultural production; be accessible to markets for what the land produces; have adequate infrastructure and

services; and have surrounding parcels of land that can support long-term agricultural production.

Conservation of Private Grazing Land

Conservation of Private Grazing Land, which is administered by NRCS, will ensure that technical, educational, and related assistance is provided to those who own private grazing lands. The Nation's more than 600 million acres of private grazing lands produce food and fiber, hold and carry important water resources, and offer wildlife habitat and recreational opportunities.

This assistance will offer opportunities for:

- Better grazing land management;
- Protecting soil from erosive wind and water;
- Using more energy-efficient ways to produce food and fiber;
- Conserving water;
- Providing habitat for wild animals;
- Sustaining forage and grazing plants;
- Using plants to clear carbon dioxide and other greenhouse gasses from the air; and
- Using grazing lands as a source of biomass energy and raw materials for industrial products.

In fiscal year 1996, \$20 million was authorized from conservation technical assistance funds. The amount increases to \$60 million by the third year.

Additional Conservation Provisions

Conservation Compliance

The 1996 Farm Bill has brought changes to how conservation compliance operates. These changes will encourage land users to slow soil erosion on highly erodible land (HEL), protect wetlands, and build on conservation compliance successes achieved under previous Farm Bills.

Conservation compliance policies are now more farmer friendly than those of previous Farm Bills while still achieving high levels of environmental protection. Farmers have greater flexibility in choosing the conservation methods that can protect their highly erodible land. More decisions regarding conservation compliance can be made at the local level and decisions can now be made faster and with fewer staff resources.

Swampbuster

Swampbuster prevents wetlands from being altered for agricultural purposes for those seeking USDA program benefits by preserving the environmental functions and values of wetlands. These values include wildlife habitat, flood control, esthetics, recreation, sediment control, groundwater recharge, and improving water quality.

The 1996 Farm Bill changed Swampbuster to give farmers greater flexibility in complying with wetland conservation requirements and in making wetlands more valuable and functional. The following Swampbuster provisions have changed:

- Wetland determinations will be made upon request. These determinations stay in effect as long as the land is used for agricultural purposes (unless a violation occurs) or until the owner or operator requests a review.
- There are more options for mitigation. These options include the kinds and locations of restoration, enhancement, or creation activities that maintain a wetland's functions and values.
- Landowners who desire to convert or alter wetlands may enhance existing wetlands, restore former wetlands, or create new wetlands to offset functions and values that are lost from conversions or alterations.
- Wetland conversions authorized by Section 404 of the Clean Water Act will be accepted if the conversion activities were properly mitigated.
- A pilot program for wetland mitigation banking may be established. This program would allow USDA to assess how well mitigation banking assists USDA participants comply with Swampbuster.
- Practices that alter wetlands can now be put on a "fast track" for completion if NRCS determines that a planned activity will have a minimal effect on the wetland functions and values in the area under the "categorical" minimal-effect exemption.

Agricultural Air Quality

The 1996 Farm Bill includes a provision requiring the establishment of a Task Force on Agricultural Air Quality to make recommendations to the Secretary of Agriculture with regard to the scientific basis for agriculture's impact on air quality. The Task Force is to be chaired by the NRCS Chief, and, unless renewed, the Task Force will be terminated 2 years from the date of establishment.

The Task Force is to strengthen and coordinate 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. The Task Force also is charged with ensuring that data quality and interpretation are sound. The Farm Bill states that policy recommendations made by any Federal Agency with respect to agricultural air quality issues are to be based on sound scientific findings, subject to peer review, and should consider economic feasibility.

The Task Force will work to ensure intergovernmental (Federal, State, and local) cooperation to establish policy for agricultural air quality and to avoid duplication.

The Task Force is to be convened and chaired by the Chief of NRCS and comprised of USDA employees, industry representatives, and outside experts in the fields of agriculture, air quality, and human health. The Task Force will be an advisory committee and will operate under the terms of the Federal Advisory Committee Act.

Other Programs

Soil Surveys

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 published 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.

■ **Major Accomplishments - FY 1995**

- *Decisions receiving technical services annually - 814,000*
- *Acres treated annually through conservation technical assistance - 28.2 million*
- *Tons of soil erosion reduced annually through conservation technical assistance - 258 million*
- *Acres mapped annually by NRCS - 21.9 million*
- *Number of soil surveys ready for production - 59*

Snow Survey and Water Supply Forecasts

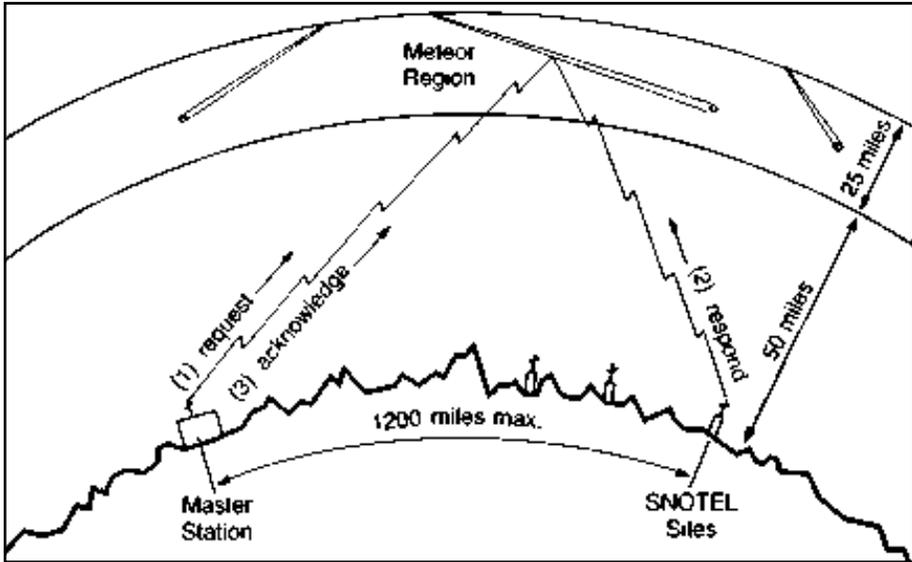
NRCS field staff collect snow information through a network of about 600 Snow Telemetry (SNOTEL) and 850 traditional snow courses to provide 11 Western States and Alaska with water supply forecasts. The data are collected, assembled, and analyzed to make about 4,000 annual water supply forecasts, which provide estimates of available annual yield, spring runoff, and summer stream flow. Water supply forecasts are used by individuals, organizations, and State and Federal agencies to make decisions relating to agricultural production, fish and wildlife management, flood control, recreation, power generation, and water quality management. The National Weather Service presently includes the snow information in its river forecasting.

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, commercial businesses, and seed and nursery associations. After species are proven, they are released to the private sector for commercial production. In 1995, NRCS developed cultivars that were turned over to others to produce plant stock that generated more than \$88 million in revenue for private sector nurseries and seed companies.

Figure 10-3.

Snow surveys and meteor burst technology



Water supply forecasting is enhanced by automated snow survey data collection through a snowpack telemetry (SNOTEL) network. This figure depicts the meteor burst technique used to transmit data from remote SNOTEL sites.

Billions of sand-sized meteorites enter the atmosphere daily. As each particle heats and burns in the region 50 to 75 miles above the Earth's surface, its disintegration creates a trail of ionized gases. The trails diffuse rapidly, usually disappearing within a second, but their short lifespan is adequate for SNOTEL communications to be completed.

The process has three major steps: (1) master stations request data from remote sites; (2) sites respond by transmitting their current data; and (3) finally a master station acknowledges receipt and signals the site transmitter to stop. This complex exchange, taking place in a fraction of a second, is possible thanks to microprocessors.

Watershed Surveys and Planning

NRCS provides assistance to local communities in watershed planning in response to requests by sponsoring local organizations. The Agency works with sponsors to develop watershed plans which meet sponsors' priorities and provide natural resource benefits.

Small Watersheds Projects.

NRCS provides technical and financial assistance, in cooperation with local sponsoring organizations, State, and other public agencies, to voluntarily plan and install watershed-based projects on private lands. The program empowers local people or decisionmakers, builds partnerships, and requires local and State funding con-

tributions. The purposes of watershed projects include watershed protection; flood prevention; water quality improvements; soil erosion reduction; rural, municipal, and industrial water supply; irrigation water management; sedimentation control; fish and wildlife habitat enhancement; and creation and restoration of wetlands and wetland functions.

Emergency Watershed Protection

Under the Emergency Watershed Protection (EWP) program, NRCS provides assistance to reduce hazards to life and property in watersheds damaged by severe natural events. An emergency exists when floods, fire, drought, or other natural causes result in life or property being endangered. During the past 8 years, the program has been needed and used in an average of 26 States per year. Emergency work includes establishing quick vegetative cover on denuded land, sloping steep land, and eroding banks; opening dangerously restricted channels; repairing diversions and levees; and other emergency work. The emergency area need not be declared a national disaster area to be eligible for technical and financial assistance. Emergency watershed protection is applicable to small-scale, localized disasters as well as disasters of national magnitude. NRCS provides technical and financial assistance for disaster cleanup and subsequent rebuilding; stream corridor, wetland, and riparian area restoration; and urban planning and site location assistance to the Federal Emergency Management Agency (FEMA) when relocating communities out of floodplains. Local people are generally employed on a short-term basis to assist with disaster recovery.

Watershed Operations

Under the Flood Control Act of 1944, NRCS is authorized to administer watershed works of improvement. Flood prevention operations include planning and installing works of improvement 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 may also 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.

■ Watershed Surveys and Planning Major Accomplishments - FY 1995

<i>Applications available for planning</i>	274
<i>Approved for planning</i>	17
<i>Planning completed</i>	17
<i>Planning in process</i>	91
<i>Cooperative studies initiated</i>	37
<i>Cooperative studies completed</i>	15
<i>Cooperative studies in progress at end of year</i>	136
<i>Floodplain management studies completed (cumulative total)</i>	668
<i>Floodplain management studies completed during fiscal year</i>	8
<i>Floodplain management studies in progress at end of year</i>	87

River Basin Surveys and Investigations

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 the Department on river basin regional entities and River Basin Interagency Committees for coordination among Federal departments and States.

Forestry Incentives Program

The objectives of this program are to increase the Nation's production of sawtimber and pulpwood on nonindustrial, private forest lands; to decrease expected shortages and rising prices of timber; and to help ensure effective use of available forest lands. Program objectives are met by providing cost-share and technical assistance to landowners to encourage voluntary installation of forestry practices. The program shares up to 65 percent of the cost incurred by the landowner for tree planting and timberstand improvement.

Resource Conservation and Development (RC&D) Program

The Resource Conservation and Development (RC&D) Program helps people care for and protect their natural resources in a way that will improve an area's economy, environment, and living standards. The RC&D Program is a unique blend of private enterprise and creative federalism. It is based on a number of concepts including the value of public/private partnerships in making the best use of limited resources; the value of grassroots involvement in making decisions about local areas; the need to bring USDA agencies together to focus on the same problems and opportunities; the need to leverage limited Federal dollars with private funds to accomplish goals; and the importance of achieving a balance between rural economic development and natural resource protection. RC&D involves more than a single project effort and builds upon long-range resource development plans. To implement RC&D, diverse groups of local people are brought together in an RC&D Council in an RC&D Area. An RC&D Area can include one or more adjacent counties that are big enough to have substantial natural resources to use for economic improvement and community betterment. The RC&D Councils, nationwide, are comprised of more than 20,000 volunteers. There are currently 289 authorized RC&D areas involving 2,092 counties across the country.

National Resources Inventory

Every 5 years, NRCS issues a report card on how well the Nation is sustaining natural resources on non-Federal land. Called the “National Resources Inventory,” or NRI, this report card 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 conservation treatment needs at national, regional, State, and sub-State levels.

In 1994, NRCS released the NRI data comparing resource conditions and trends in 1982 and 1992. Key findings include:

- Between 1982 and 1992, the Nation’s cropland acreage decreased by about 9 percent (from 421 million to 382 million acres), most of it going into the Conservation Reserve Program; rangeland acreage decreased by about 2 percent (from 409 million to 399 million acres); and developed land increased by 18 percent (from 78 million to 92 million acres).

- The average annual rate of soil erosion for the Nation dropped substantially between 1982 and 1992, largely attributable to the success of the Nation’s farmers in meeting the conservation provisions of the 1985 farm bill.

- Prime farmland decreased by 6 million acres between 1982 and 1992, with most of the losses due to rural and urban development.

- Wetland loss due to agriculture has slowed significantly.

The NRI contributes to resource appraisals authorized by the Soil and Water Resources Conservation Act of 1977. These “RCA” appraisals, led by NRCS, are the basis for USDA’s National Conservation Program as well as farm and environmental legislation.

In 1994, NRI data and analytical software were made available to the public on CD-ROM for the first time. To obtain the NRI database, Data Analysis Software, and spatial data sets, contact: NRCS National Cartography and Geospatial Center, Fort Worth Federal Center, Bldg. 23, Room 60, P.O. Box 6567, Fort Worth, TX 76115-0567; telephone (817) 334-5559, extension 3135.

Each NRI has built and improved upon the previous one. For example, the 1992 NRI added a data element to look specifically at Earth cover. Major improvements planned for the 1997 NRI include a broader resource assessment focus to address emerging Agency initiatives, such as soil quality and grazing lands health. The NRI and other data collection efforts are being coordinated to achieve a continuous assessment of natural resource conditions and trends.

NRI information can be used to formulate policy and evaluate programs at national, regional, and State levels. Because the NRI’s 800,000 sample points are linked to geographic coordinates, natural resource estimates and maps can be produced for user-defined areas of interest. When combined with other Federal, State, and local government inventories, the NRI can provide a snapshot of the state of the land and identify natural resource trends. NRCS field offices and new information dissemination systems, such as the Internet, will become increasingly important in getting this information to the people who most need it: landowners and natural resource managers.

For More Information

Forest Service

Director, Public Affairs

Vacant
2CEN-Aud Washington, DC 20250
202-205-1760
FAX 202-205-0885
/s=pao/ou1=w01b@mhs-fswa.attmail.com

Media Officer

Alan Polk
2CEN-Aud Washington, DC 20250
202-205-1134
FAX 202-205-0885
/s=a.polk/ou1=w01b@mhs-fswa.attmail.com

Asst. Dir., Pub. Aff.

Chris Holmes
2CEN-Aud Washington, DC 20250
202-205-1006
FAX 202-205-0885
/s=c.holmes/ou1=w01b@mhs-fswa.attmail.com

Photo, Video Services

Yuen-Gi Yee (Bernie)
2CEN-Aud Washington, DC 20250
202-205-1438
FAX 202-205-0885

Asst. Dir., Pub. Aff.

Denver James
2CEN-Aud Washington, DC 20250
202-205-1781
FAX 202-205-0885
/s=d.james/ou1=w01b@mhs-fswa.attmail.com

FOIA Office

Naomi Charboneau
51LL-RPE Arlington, VA 22209
703-235-9488
FAX 703-235-9498
/s=n.charboneau/ou1=w01b@mhs-fswa.attmail.com

FS Regional Information Offices

Northern Reg. PA Officer

Beth Horn
P.O.Box 7669-Fed. Building
Missoula, MT 59807
406-329-3089
FAX 406-329-3411
/s=io/ou1=r01a@mhs-fswa.attmail.com

Rocky Mtn. Reg. PA Officer

Steve Deitemeyer
P.O.B. 25127-11177 W.8th Ave
Lakewood, CO 80225
303-275-5135
FAX 303-275-5366
/s=rpst/ou1=r02a@mhs-fswa.attmail.com

Southwest Reg. PA Officer

Carolyn Bye
517 Gold Ave., SW, Fed.Bldg.
Albuquerque, NM 87102
505-842-3290
FAX 505-842-3457
/s=is/ou1=r03a@mhs-fswa.attmail.com

Intermtn. Reg. PA Officer

Robert Swinford
324 25th St. Fed. Bldg.
Ogden, UT 84401
801-625-5347 FAX 801-625-5240
/s=pao/ou1=r04a@mhs-fswa.attmail.com

Pacific SW Reg. PA Officer

Marilyn Hartley
630 Sansome Street
San Francisco, CA 94111
415-705-2804
FAX 415-705-1097
/s=oi/ou1=r05a@mhs-fswa.attmail.com

Pacific NW Reg. PA Officer

Sylvia Brucchi
P.O.B 3623-333 S. First St
Portland, OR 97208
503-326-2971
FAX 503-326-5044
/s=pao/ou1=r06a@mhs-fswa.attmail.com

Southern Reg. PA Officer

Bruce Jewell
1720 Peachtree Rd, NW
Atlanta, GA 30367
404-347-7240
FAX 404-347-3608
/s=pao/ou1=r08a@mhs-fswa.attmail.com

Eastern Reg. PA Officer

Sherry Wagner
310 W. Wisconsin Ave., Rm 500
Milwaukee, WI 53203
414-297-3640
FAX 414-297-3808
/s=pcr_r09a/ou1=r09a@mhs-fswa.attmail.com

Alaska Reg. PA Officer

Kimberly Bown
P.O.Box 21628 - Fed. Bldg.
Juneau, AK 99802
907-586-8806
FAX 907-586-7892 /s=pao/ou1=r10a@mhs-fswa.attmail.com

NE Area State-Private PA

Jill Cherpak
100 Matsonford Road, Rm 200
Radnor, PA 19087-4585
610-975-4111
FAX 610-975-4200
/s=j.cherpak/ou1=s24a@mhs-fswa.attmail.com

FS Research Stations**Forest Products Lab. Inf.**

Debra Dietzman
One Gifford Pinchot Drive
Madison, WI 53705-2398
608-231-9236
FAX 608-231-9592
/s=p.green/ou1=s32a@mhs-fswa.attmail.com

Intermtn. Stat. Res. Inf.

Dave Tippetts
324 25th Street
Ogden, UT 84401
801-625-5431
FAX 801-625-5434
/s=ri/ou1=s22a@mhs-fswa.attmail.com

N. Cent. Station Res. Inf.

Michael Prouty
1992 Folwell Avenue
St. Paul, MN 55108
612-649-5276
FAX 612-649-5285
/s=re/ou1=s23a@mhs-fswa.attmail.com

Northeast Stat. Res. Inf.

Mary Buchanan
100 Matsonford Rd., Rm 200
Radnor, PA 19087
614-368-0123
FAX 614-368-0152
/s=im/ou1=s24a@mhs-fswa.attmail.com

Pacific NW Stat. Res. Inf.

Cynthia Miner
P.O.Box 3890
Portland, OR 97208
503-326-7127
FAX 503-326-2455
/s=risk/ou1=r6/pnw@mhs-fswa.attmail.com

Pacific SW Stat. Res. Inf.

Sherri Richardson
1960 Addison Street
Berkeley, CA 94704
503-326-7132
FAX 510-559-6440
/s=risk/ou1=s27a@mhs-fswa.attmail.com

Rocky Mtn. Stat. Res. Inf.

Richard Schneiber
240 W. Prospect Road
Fort Collins, CO 80526-2098
970-498-1798
FAX 303-498-1660
/s=r.schneiber/ou1=s28a@mhs-fswa.attmail.com

Southern Res. Station Inf.

Rod Kindlund
P.O.B. 2680 - 200 Weaver Blvd.
Asheville, NC 28802
704-257-4389
FAX 704-259-0509
/s=pmis/ou1=s29a@mhs-fswa.attmail.com

Natural Resources Conservation Service

Dir., Conservation Comm. Staff

David C. White
Rm 6103-S Washington, DC 20013
202-720-3210
FAX 202-720-1564
dave.white@usda.gov

Program Assistant

Joyce Hawkins
Rm 6105-S Washington, DC 20013
202-720-3210
FAX 202-720-1564
joyce.hawkins@usda.gov

Public Affairs Specialist

Mary Cressel
Rm 6111-S Washington, DC 20013
202-690-0547
FAX 202-690-1221
mary.cressel@usda.gov

Public Affairs Specialist

June Davidek
Rm 6119-S Washington, DC 20013
202-720-3876
FAX 202-690-1221
june.davidek@usda.gov

Visual Information Specialist

Robert Gresh
Rm 0054ES Washington, DC 20013
202-720-5157
FAX 202-720-9925
robert.gresh@usda.gov

Editorial Assistant

Sandy Grimm
Rm 6116-S Washington, DC 20013
202-720-6243
FAX 202-690-1221
sandy.grimm@usda.gov

Public Affairs Specialist

Fred Jacobs
Rm 6113-S Washington, DC 20013
202-720-4649
FAX 202-690-1221
fred.jacobs@usda.gov

Public Affairs Specialist

Ted Kupelian
Rm 6113-S Washington, DC 20013
202-720-5776
FAX 202-690-1221
ted.kupelian@usda.gov

Public Affairs Specialist

Judith Ladd
Rm 6116-S Washington, DC 20013
202-720-2536
FAX 202-690-1221
judy.ladd@usda.gov

Public Affairs Specialist

Tom Levermann
Rm 6111 Washington, DC 20013
202-720-7570
FAX 202-690-1221
tlevermann@usda.gov

Visual Information Specialist

Chris Lozos
Rm 6123-S Washington, DC 20013
202-720-4244
FAX 202-690-1221
chris.lozos@usda.gov

Public Affairs Specialist

Diana Morse
Rm 6119-S Washington, DC 20013
202-720-4772
Fax 202-690-1221
diana.morse@usda.gov

Printing Specialist

Doug Wilson
Rm 4243-S Washington, DC 20013
202-720-7769
Fax 202-720-9975
Doug.wilson@usda.gov

Freedom of Info Act Office

Wilda Grant
Rm 5236-S Washington, DC 20013
FAX 202-690-3174
wgrant@usda.gov

Natural Resources
Conservation Service State
Public Affairs Contacts

AL

Joan Smith
665 Opelika Road,
Auburn, AL 36830-0311-4362
334-887-4530
FAX 334-887-4551 j.
smith@al.nrcs.usda.gov

AK

Lois Jackson
949 East 36th Avenue, Suite 400,
Anchorage, AK 99508-4302
907-271-2424
FAX 907-271-3951
ljackson@ak.nrcs.usda.gov

AZ

Mary Ann McQuinn
3003 North Central Avenue, Suite 800,
Phoenix, AZ 85012-2945
602-280-8778
FAX 602-280-8809
mmcquinn@az.nrcs.usda.gov

AR

Suzanne Pugh
Fed. Bldg., Rm 5404, 700 W. Capitol Ave.,
Little Rock, AR 72201-3228
501-324-5464
FAX 501-324-6138
spugh@ar.nrcs.usda.gov

CA

Anita Brown
2121-C 2nd Street, Suite 102,
Davis, CA 95616-5475
916-757-8241
FAX 916-757-8217
abrown@ca.nrcs.usda.gov

CO

Petra Barnes
655 Parfet Street, Room E200C,
Lakewood, CO 80215-5517
303-236-2886
FAX 303-236-2896
pbarnes@co.nrcs.usda.gov

CT

Carolyn Mill
16 Professional Park Road,
Storrs, CT 06268-1299
860-487-4062
FAX 860-487-4054
cmiller@ct.nrcs.usda.gov

DE

Paul Petrichenko
1203 College Park Drive, Suite 101,
Dover, DE 19904-8713
302-678-4178
FAX 302-678-0843
ppetrichenko@de.nrcs.usda.gov

FL

Dorothy Staley
2614 N.W. 43rd Street,
Gainesville, FL 32606-6611
352-338-9565
FAX 352-338-9574
dstaley@fl.nrcs.usda.gov

GA

Art Greenberg
Federal Building, Box 13, 355 East Hancock
Ave., Athens, GA 30601 2769
706-546-2273
FAX 706-546-2276
agreenberg@ga.nrcs.usda.gov

HI

Lee Ozawa
300 Ala Moana Boulevard, Room 4316,
Honolulu, HI 96850-0002
808-541-2651
FAX 808-541-1335
lozawa@hi.nrcs.usda.gov

ID

Sharon Norris
3244 Elder Street, Room 124, Boise, ID
83705-4711
208-378-5725
FAX 208-378-5735
snorris@id.nrcs.usda.gov

IL

Kay Kitchen-Maran
1902 Fox Drive, Champaign, IL 61820-7335
217-398-5273
FAX 217-398-5310
kktchenmaran@il.nrcs.usda.gov

IN

Michael McGovern
6013 Lakeside Boulevard, Indianapolis, IN
46278-2933
317-290-3222
FAX 317-290-3225
mmcgvorn@in.nrcs.usda.gov

IA

Lynn Betts
693 Federal Building, 210 Walnut Street, Des
Moines, IA 50309-2180
515-284-4262
FAX 515-284-4394
lbetts@ia.nrcs.usda.gov

KS

Tim Christian
760 South Broadway,
Salina, KS 67401
913-823-4570
FAX 913-823-4540
tchristian@ks.nrcs.usda.gov

KY

Vacant
771 Corporate Drive, Suite 110,
Lexington, KY 40503-5479
606-224-7403
FAX 606-224-7393

LA

Herb Bourque
3737 Government Street,
Alexandria, LA 71302-3727
318-473-7762
FAX 318-473-7771
hbourque@la.nrcs.usda.gov

ME

Elaine Tremble
5 Godfrey Drive, Orono, ME 04473
207-866-7241
FAX 207-866-7262
etremble@me.nrcs.usda.gov

MD

Carol Hollingsworth
John Hanson BC, 339 Bucsh's Frontage Rd.,
#30, Annapolis, MD 21401 5534
410-757-0861
FAX 410-757-0687
chollingsworth@md.nrcs.usda.gov

MA

Alyssa Aldrich
451 West Street,
Amherst, MA 01002-2995
508-692-0790
FAX 508-392-1305
aaldrich@ma.nrcs.usda.gov

MI

Bob Baetsen (Acting)
1405 South Harrison Road, Room 101, East
Lansing, MI 48823-5243
517-543-1539
FAX 517-543-5962
bbaetsen@mi.nrcs.usda.gov

MN

Vacant
600 Farm Credit Building,
375 Jackson Street,
St. Paul, MN 55101-1854
612-290-3677
FAX 612-290-3375

MS

Jeannine May
Fed. Bldg., Suite 1321, 100 W. Capitol St.,
Jackson, MS 39269-1399
601-965-4337
FAX 601-965-4536
jmay@ms.nrcs.usda.gov

MO

Norm Klopfenstein
Parkade Ctr., #250,
601 Business Loop, 70 West,
Columbia, MO 65203 2546
314-876-0911
FAX 314-876-0913
nklopfenstein@mo.nrcs.usda.gov

MT

Lori Valadez
Fed. Bldg., Room 443,
10 East Babcock Street,
Bozeman, MT 59715-4704
406-587-6842
FAX 406-587-6761
lvaladez@mt.nrcs.usda.gov

NE

Pat McGrane
Fed. Bldg., Rm 152,
100 Centennial Mall, North,
Lincoln, NE 68508-3866
402-437-5328
FAX 402-437-5327
pmcgrane@ne.nrcs.usda.gov

NV

Liz Warner
5301 Longley Lane, Building F, Suite 201,
Reno, NV 89511
702-784-5288
FAX 702-784-5939
lwarner@nv.nrcs.usda.gov

NH

Lynn Howell
Federal Building, 2 Madbury Road,
Durham, NH 03824-1499
603-868-7581
FAX 603-868-5301
lhowell@nh.nrcs.usda.gov

NJ

Irene Lieberman
1370 Hamilton Street,
Somerset, NJ 08873-3157
908-246-1171
FAX 908-246-2358
ilieberman@nj.nrcs.usda.gov

NM

Rebecca de la Torre
6200 Jefferson, NE, Suite 305,
Albuquerque, NM 87109-3734
505-761-4404
FAX 505-761-4463
rdelatorre@nm.nrcs.usda.gov

NY

Vacant
441 S. Salina Street, 5th Floor, Suite 354,
Syracuse, NY 13202-2450
315-477-6505
FAX 315-477-6550

NC

Andrew Smith
4405 Bland Road, Suite 205,
Raleigh, NC 27609-6293
919-873-2107
FAX 919-873-2156
asmith@nc.nrcs.usda.gov

ND

Arlene Deutscher
Fed. Bldg., Room 278,
220 East Rosser Avenue,
Bismarck, ND 58502 1458
701-250-4768
FAX 701-250-4778
adeutscher@nd.nrcs.usda.gov

OH

Latawnya Dia
200 North High Street, Room 522,
Columbus, OH 43215-2748
614-469-6962
FAX 614-469-2083
ldia@oh.nrcs.usda.gov

OK

Dwain Phillips
100 USDA, Suite 203,
Stillwater, OK 74074-2654
405-742-1243
FAX 405-742-1201
dphillips@ok.nrcs.usda.gov

OR

Gayle Norman
101 SW 3rd Ave., Rm. 1640,
Portland, OR 97204-2881
503-414-3236
FAX 503-414-3101
gnorman@or.nrcs.usda.gov

PAC

Joan Perry
BAS FHB Building, Suite 301, 400 Route 8,
Maitte, GU 96927
671-472-7490
FAX 700-550-7288
jperry@pac.nrcs.usda.gov

PA

Sylvia Rainford
1 Credit Union Place, Suite 340,
Harrisburg, PA 17110-2993
717-782-2290
FAX 717-782-4469
srainford@pa.nrcs.usda.gov

PR

Becky Fraticelli
IBM Bldg., 6th fl. 654 Munoz Riveria Ave.,
Hato Rey, PR 00918-7013
787-766-5206
FAX 787-766-5987
bfraticelli@pr.nrcs.usda.gov

RI

Vacant
60 Quaker Lane, Suite 46,
Warwick, RI 02886-0111
401-828-1300
FAX 401-828-0433

SC

Perdita Belk
Strom Thurmond FB,
1835 Assembly St., Rm 950,
Columbia, SC 29201 2489
803-765-5402
FAX 803-253-3670
pbelk@sc.nrcs.usda.gov

SD

Joyce Watkins
Federal Building, 200 4th Street, SW,
Huron, SD 57350-2475
605-352-1227
FAX 605-352-1261
jwatkins@sd.nrcs.usda.gov

TN

Larry Blick
675 U.S. Courthouse, 801
Broadway, Nashville, TN 37203-3878
615-736-5490
FAX 615-736-7764
lblick@tn.nrcs.usda.gov

TX

Harold Bryant
W.R. Poage Fed. Bldg., 101 South Main
Street, Temple, TX 76501-7682
817-298-1228
FAX 817-298-1388
hbryant@tx.nrcs.usda.gov

UT

Ron Nichols
W. F. Bennett FB, 125 S. State St., Rm 4402,
Salt Lake City, UT 84138
801-524-5050
FAX 801-524-4403
rnichols@ut.nrcs.usda.gov

VT

Anne Hilliard
69 Union Street,
Winooski, VT 05404-1999
802-951-6796
FAX 802-951-6327
ahilliard@vt.nrcs.usda.gov

VA

Pat Paul
Culpeper Bldg., #209, 1606 Santa Rosa Rd.,
Richmond, VA 23229-5014
804-287-1681
FAX 804-287-1737
ppaul@va.nrcs.usda.gov

WA

Chris Bieker (acting)
Rock Pointe Tower II, W.
316 Boone Ave., #450,
Spokane, WA 99201 2348
509-353-2336
FAX 509-353-2354
cbielcer@wa.nrcs.usda.gov

WV

Peg Reese
75 High Street, Room 301,
Morgantown, WV 26505
304-291-4152
FAX 304-291-4628
preese@wv.nrcs.usda.gov

WI

Renae Anderson
6515 Watts Road, Suite 200,
Madison, WI 53719-2726
608-264-5341
FAX 608-264-5483
randerson@wi.nrcs.usda.gov

WY

Nancy Atkinson
Fed. Bldg., 100 East B Street, Room 3124,
Casper, WY 82601-1911
307-261-6482
FAX 307-261-6490
natkinson@wy.nrcs.usda.gov