

South Carolina Forestry Commission

Annual Report 2002-2003

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STATE COMMISSION OF FORESTRY

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MISSION

The mission of the Forestry Commission is to protect, promote, enhance, and nurture the forest lands of South Carolina in a manner consistent with achieving the greatest good for its citizens.

Responsibilities extend to all forest lands, both rural and urban, and to all associated forest values and amenities including, but not limited to, timber, wildlife, water quality, air quality, soil protection, recreation, and aesthetics.

The Forestry Commission shall have general and specific responsibilities for the promulgation and enforcement of laws and regulations related to protection of the forest and its associated values.

The Commission shall be responsible for promoting and developing the appropriate technologies to accomplish its objectives, and for the development and promulgation of Best Management Practice Guidelines for South Carolina's forest land.

FIELD OPERATIONS SUPPORT

The Field Operations Support Division provides operational and technical staff direction to the Forestry Commission field organization in each of the major program areas of forest management, forest protection, nurseries and tree improvement, state forests and other state lands, and dispatch and forest technology.

FOREST MANAGEMENT

The Forest Management Section assists South Carolina citizens with management and development of the forest resources of the state. Programs include woodland management assistance, reforestation assistance, forestry services, forest products utilization and marketing assistance, resource conservation and development, water quality, urban forestry, and forest inventory. These programs assist owners in growing more timber, aid industries in more efficient utilization of the timber resource, and foster conservation and multiple use of the forest resource.

There are 12.3 million acres of commercial forestland in South Carolina. According to the 2000 U.S. Forest Service Survey, farmers and non-industrial private owners own 74% of this land. Forest industry owns approximately 16% with 10% in public ownership.

The Forest Management programs are designed to assist the non-industrial private landowner with multiple-use forest management.

FOREST MANAGEMENT ASSISTANCE

Professional foresters from the Forestry Commission provide forest management advice and assistance to landowners. The land is examined and a written forest management plan is prepared. Recommendations for management may include such silvicultural practices as forest protection, reforestation, harvesting, prescribed burning, wildlife habitat improvement, and recreation.

This year, 1,776 management plans were prepared for 118,422 acres. Beginning in July of 1999, customer satisfaction surveys were sent to every landowner that received a forestry management plan. In FY 03, 97% of the landowners that responded to the survey indicated that they were very satisfied or somewhat satisfied with the management plan they received. Of these landowners, 88% also indicated that they intended to complete most or all of the recommendations in their plan. Where practical, the landowner is referred to consulting or industrial foresters to assist in carrying out management recommendations. This year 342 cases were referred to consulting foresters and 84 to industrial foresters.

COST SHARE PROGRAMS

Forest Renewal Program (FRP) - State

In 1982 the program was funded for the first time by a \$100,000 state appropriation. This permitted an assessment of \$400,000 from forest industry, and created a \$500,000 Forest Renewal Fund. The state funding was doubled effective July 1, 1996. This increase permitted an assessment of \$800,000 increasing the program to \$1,000,000.

Forest Incentives Program (FIP) - Federal

This program was eliminated in the 2002 Farm Bill. Accomplishments for FY2002-2003 are the result of carry-over funds and work completed this year with funds allocated last year.

Conservation Reserve Program (CRP) - Federal

The Program began with crop year 1986 and was renewed with the passage of the 2002 Farm Bill. Twenty-six signups have been held. This year only 2,858 acres were planted due to the lack of a sign-up period during FY2001-2002. The 26th signup was completed in the spring of 2003 and should result in some tree planting activity during the next two planting seasons.

SEEDLING SURVIVAL

Survival checks were made on 10 percent of plantings using a row count or tenth acre plot method for determining survival. A weighted average involving all survival checks was used to determine the statewide survival of 75% for loblolly pine plantings. Survival rates for longleaf pine plantings were tabulated separately. Plantings with longleaf seedlings had a survival rate of 54%. Extended drought, unfavorable planting conditions and improper planting, may have contributed to the poor survival rates for longleaf pine.

Statewide Accomplishments for All Cost-Share Programs Reforestation and Timber Stand Improvement

Program	Number of Landowners	Acres Planted	Natural Regeneration	TSI Acres	Cost Share Payments
FRP	371	10,240	0	2545	\$816,447
FIP	300	9098	0	660	\$634,500
CRP	94	2,858	0	0	\$189,621
Totals	765	22,196	0	3205	\$1,640,568

FOREST SERVICES

Through this program the Commission provides assistance to landowners and other state agency lands with afforestation, reforestation, and maximization of production from their woodlands. The landowner is charged the cost of all services performed.

These services were available to landowners during the year:

Firebreak Plowing - performed by Forestry Commission employees using agency equipment for \$80 for the 1st hour and \$55 for each additional hour.

Forest Management Assistance 2002-2003

County	Non Cost-Share		Cost-Share		Forest Stewardship	
	Exams	Acres	Exams	Acres	Exams	Acres
Abbeville	30	3,823	24	631	4	1,633
Aiken	22	1,447	18	851	12	1,391
Allendale	7	1,219	9	534	1	293
Anderson	54	3,652	1	418	2	591
Bamberg	5	157	17	766	3	622
Barnwell	10	965	9	580	2	468
Beaufort	4	193	5	376	2	904
Berkeley	15	774	14	525	1	80
Calhoun	4	143	6	612	5	682
Charleston	39	2,279	7	777	2	82
Cherokee	7	207	8	489	1	310
Chester	23	1,373	17	731	4	707
Chesterfield	20	1,651	27	1,051	3	235
Clarendon	2	114	2	93	1	93
Colleton	28	1,206	28	845	12	2,352
Darlington	7	307	14	636	0	0
Dillon	18	951	22	1,035	0	0
Dorchester	30	1,124	20	1,359	1	1,375
Edgefield	5	318	41	1,225	3	554
Fairfield	6	766	8	315	3	438
Florence	42	3,010	13	438	9	1,777
Georgetown	9	611	7	208	1	70
Greenville	31	784	6	218	1	45
Greenwood	5	812	11	412	5	506
Hampton	27	1,873	32	1,614	9	919
Horry	42	2,972	30	1,159	7	512
Jasper	10	1,198	3	362	1	1,594
Kershaw	15	808	27	1,529	2	1,510
Lancaster	35	1,402	21	992	3	297
Laurens	8	506	16	649	3	1,760
Lee	17	1,126	9	408	4	374
Lexington	7	228	15	310	1	20
Marion	22	1,550	13	429	9	2,524
Marlboro	26	915	29	1,469	2	266
McCormick	12	2,024	12	646	1	300
Newberry	18	493	38	1,216	0	0
Oconee	34	1,761	10	656	0	0
Orangeburg	15	1,216	55	1,636	15	2,410
Pickens	16	369	5	225	3	330
Richland	3	80	6	144	0	0
Saluda	9	516	38	1,355	2	379
Spartanburg	6	328	17	817	6	289
Sumter	15	1,188	13	579	1	460
Union	8	734	17	894	0	0
Williamsburg	27	1,838	35	920	10	2,039
York	28	2,050	18	669	3	369
State Totals	823	53,059	793	33,803	160	31,560

Prescribed Burning - performed by Forestry Commission employees using agency equipment for \$12 per acre for the 1st 50 acres, \$10 per acre for the 2nd 50 acres and \$8 per acre for all over 100 acres. Firebreak plowing costs are not included. Minimum fee \$200.00.

Prescribed Burning Standby - an agency tractor and employee on standby at burning site for \$50 for the 1st hour and \$25 for each additional hour while landowner performs burning under an approved plan. Minimum fee \$100.00.

Equipment Rental Program - agency owned tree planters and drum choppers made available to private landowners at rates from \$5 to \$20 per acre.

Timber Marking - performed by Forestry Commission employees at the rate of \$8 per thousand board feet and \$3.00 per cord.

Beginning in July of 1999, a customer satisfaction survey was sent to all landowners that received forestry services. In FY 03, 66% of the surveys were returned and 95% of these landowners indicated that they were very satisfied or somewhat satisfied with the services they had received.

Service	Number of Tracts	Units of Measure	Receipts
Firebreak Plowing	433	1,170 miles	\$110,878
Prescribed Burning	152	12,415 acres	\$129,355
Prescribed Burning Standby	21	1,546 acres	\$7,156
Equipment Rental	39	940 acres	\$6,595
Water Bar Construction	10	388 bars	\$5,573
Timber Marking	5	1,132 cords	\$8,760
		556,934 board feet.	
Totals	660		\$268,317

ENVIRONMENTAL MANAGEMENT

The Environmental Management Section is responsible for the development and implementation of South Carolina Forestry Commission programs that are related to the environmental protection of forest and associated natural resources. Issues that are addressed include the protection of water quality, site productivity, endangered species, and unique ecosystems.

BMP Implementation Monitoring

Compliance with harvesting BMPs has been documented in three previous surveys. Compliance for harvesting BMPs was 84.5% in 1990, 84.7% in 1991, and 89.5% in 1994, 91.5% in 1999. A new survey was initiated in the fall of 2000 to update BMP compliance. Two hundred sites were located and inspected for compliance with BMPs relating to timber harvesting throughout the state. Compliance with harvesting BMPs rose to 94% in the initial phase of a two-year study. In the winter of 2001, site preparation BMPs were evaluated on the same 200 sites and an additional 100 site prepared tracts. A third and final site visit to each monitoring location was conducted in early 2002 to determine site preparation BMP compliance, regeneration methods, site stabilization, conversion to other uses, and other related factors. Compliance with BMPs related to site preparation was 96.4% in this survey. Data from the 2000, 2001, and 2002 site visits is currently being compiled for publication.

BMP Education/Training Program

BMP training and education are essential to the success of the Forestry Commission's non-regulatory BMP program. During this fiscal year, 79 BMP meetings were held across the state for forest landowner groups, government agencies, and professional organizations. A total of 3,745 people attended these meetings. Included in these meetings were six Timber Operations Professional (TOP) workshops, eight TOP Refresher workshops, and nine TOP SMZ workshops, which reached 789 loggers, landowners, foresters, and road construction contractors.

Courtesy Exam Program

The S.C. Forestry Commission's BMP Foresters, located in each of the three operating regions of South Carolina, offer courtesy BMP exams to landowners, foresters, and timber buyers. The BMP Forester makes site-specific BMP recommendations to follow while conducting forestry activities. During the 2002-2003 fiscal year, the BMP Foresters completed 408 courtesy exams. Of the 408 sites, 398 (97.5%) were completed in compliance with our recommended guidelines.

Endangered Species

This year, the Environmental Management Section continued training on endangered species biology and management, with an emphasis on those species that may impact forestry operations. The BMP Foresters are available to provide information and assistance to SCFC personnel, foresters, and private landowners. This assistance may include site visits, cooperating on the Safe Harbor program administered by the S.C. Department of Natural Resources, and assisting State Forests and other state-owned properties upon request. This year, the BMP foresters made 24 site visits to assist landowners and foresters with endangered species identification and information and presented information regarding endangered species to 10 groups, reaching 201 college students, forest landowners, foresters, loggers, and the public.

URBAN & COMMUNITY FORESTRY

Urban and community forestry (U&CF) seeks to improve the quality of life in populated areas by providing direct technical assistance to municipal and county governments, educational institutions, non-profit conservation organizations, businesses and homeowners. This is accomplished by working through diverse and cooperative partnerships to protect, conserve and improve the management of community tree resources here in South Carolina. Clean air, clean water, increased property value, energy conservation, improved aesthetics, noise buffering, and public safety are some of the products of these endeavors.

Urban and Community Forestry Grant Program

The Urban and Community Forestry Grant Assistance Program is a national program funded by Congress through the U. S. Forest Service. South Carolina received \$150,000 in base funding to provide technical assistance and training. Three full-time urban foresters are responsible for providing that technical assistance on a regional basis for the Piedmont, Pee Dee, and Coastal regions of the state. Other Commission foresters provide urban forestry assistance in their respective areas on a time available basis. A full-time Grant Administrator Assistant works in the Columbia office along with the Urban Forestry Coordinator for statewide program management.

Pass-through grants in the amount of \$230,000 were provided to county and local governments, non-profit organizations, and educational institutions to assist in the establishment and enhancement of long-lasting urban and community forestry programs.

Partnership Development and Educational Programs

Through the technical assistance of the urban and community forestry staff and utilization of grant funds, the urban forestry program strives to develop partnerships with a variety of organizations and units of local government. Often these partnerships result in educational programs about the benefits and importance of urban forest resources. During FY 03, the urban and community forestry staff and grant projects were involved with developing 160 partnerships with various organizations and presented 143 educational sessions to approximately 6,123 South Carolinians, both youth and adults.

Tree City/Tree Line USA

Sponsored by the National Arbor Day Foundation, Tree City USA is administered in South Carolina by the SC Forestry Commission. The program seeks to stimulate and promote the management of urban and community trees by recognizing towns and cities which meet the following criteria: (1) establishment of a municipal tree ordinance, (2) expenditure of at least two dollars per capita on tree care and planting, (3) a legally constituted tree board or permanent staff, and (4) observance of Arbor Day by a mayoral proclamation and official ceremony. The SC Forestry Commission has recognized and awarded 30 municipalities and 3 military bases under the Tree City USA program.

Another program sponsored by the National Arbor Day Foundation is Tree Line USA. The Tree Line USA program seeks to stimulate and recognize proper line clearing and safety techniques of private and public utility companies. In order to qualify as a Tree Line USA, a utility must meet three criteria: (1) Perform quality tree care regarding pruning, trenching and tunneling methods, (2) Provide opportunities for annual utility line worker training, and (3) sponsor an ongoing community tree planting program to include an Arbor Day celebration and at least one educational mailing to customers. The Forestry Commission recognized the Gaffney Board of Public Works as South Carolina's only Tree Line USA utility for the fourth consecutive year.

Types Of Technical Assistance	U&CF Program Accomplishments Forestry Commission Regional Urban Foresters		U&CF Program Accomplishments Sub-Grantees
	Total # of Customers	Total # of Assists	Total # of Sub-grants awarded
Program Development/Expansion			
Municipal Governments	65	129	17
Non-profit organizations	25	56	3
Educational Institutions	28	76	13
State/County Governments	<u>15</u>	<u>64</u>	<u>4</u>
	133	325	37
Public Vegetation Ordinances Passed/Revised	NA		2
Urban Forestry Cultural Practices			
Commercial/Business	38		NA
Residential	787		NA
Public Agency	<u>70</u>		NA
Total Assists (#)	895		
Public Trees Inventoried			
Miles	NA		9,700
Acres	NA		100
Total Trees Inventoried (#)			2,854
Public Trees Planted			
Saplings (<2" caliper)	NA		309
Street/Park (>2" caliper)	NA		<u>221</u>
Total Trees Planted			530
Tree City USA's	32		1
Demonstration Planting Projects	NA		27
Partnership Development	38		122
Public Information/Education			
Municipal	31		14
Non-Profit Organizations	3		2
State/County Governments	0		10
Civic Organizations	8		1
School/Youth Groups	<u>48</u>		<u>26</u>
Total Programs (#)	90		53
Total # of seat hours	3,154		39,000
Total # of people	2,248		3,875

FOREST STEWARDSHIP

The Forest Stewardship Program is a cooperative effort among the USDA Forest Service, Forestry Commission, other natural resource agencies and organizations, forest industry, and private forest consultants in South Carolina to encourage the long-term stewardship of non-industrial private forest lands. Landowners are provided technical assistance by having a multiple resource management plan developed for their property addressing their management objectives.

During FY 03, 260 Stewardship Plans were written in South Carolina on 56,293 acres.

The plans were written by the following cooperators: S.C. Forestry Commission/ DNR: 163 plans; Forest Consultants: 93 plans; and Forest Industry: 4 plans.

Stewardship Incentive Program

The federal cost-share Stewardship Incentive Program which provided financial incentives to private landowners to implement management practices outlined in their Stewardship Management Plan, was terminated in FY02.

FOREST INVENTORY & ANALYSIS

The Forest Inventory and Analysis (FIA) program is a cooperative program with the US Forest Service – Southern Research Station to collect forest inventory and forest health monitoring data from a network of permanent sample plots. There are 3,484 total forest inventory plots located in South Carolina. Plots are sampled in 20% increments of the total, referred to as Panels. Plots are measured for growth projections, mortality and harvest assessments, and land-use classification. In addition, FIA provides information about South Carolina's forest resources including forest acreage, timber quality, timber volume, timber growth, forage, water, and recreation. The information provided by FIA allows the evaluation of both quantity and quality of these important resources. The US Forest Service furnishes data analysis and reporting for this program.

An additional subset of the FIA plots is selected to provide data on forest health. A total of 204 plots are located in South Carolina. Each year, during the summer, 20% of these plots, referred to as Panels, are measured to provide forest health data, such as, soil chemistry, tree health, tree carbon fixation, tree nutrient storage, and potential for tree survival and reproduction. Forest health data provides a quantitative assessment of current tree conditions and provides an integrated measure of site conditions, stand density and influence of external stresses. In addition, separate bioindicator plots are taken to detect the presence of ozone pollution.

Currently, three full-time inventory crews are stationed throughout the state. The program coordinator is stationed in Columbia. All crewmembers are required to exceed a minimal accuracy average of 87% for all inventory plots. US Forest Service personnel conduct quality assurance and quality control checks to insure the accuracy of the field crews. During FY 2002-2003, the average accuracy for all crews was 87.55%.

South Carolina is currently in the ninth remeasurement of the state. During FY 2002-2003, field crews completed one Panel of plots that began in FY 2001-2002, and completed 22 plots of the next Panel resulting in 3% measurement of the current Panel. For the year 550 plots were completed, which falls short of the one Panel (approximately 700 plots) per year requirement. This is largely due to agency budget constraints in regards to filling vacant positions. Data collection for the subset of plots, to monitor forest health, began in June and 56% of 41 plots have been collected.

STATE FORESTS AND OTHER STATE LANDS

STATE LANDS MANAGEMENT PROGRAM

The State Lands Forest Management Program was created to provide professional forest management assistance to South Carolina state agencies that own timberlands. During fiscal year 2002-2003, six agencies requested assistance from the state lands coordinator. The agencies and facilities were as follows:

Department of Natural Resources

- Webb Wildlife Center
- Donnelley Wildlife Management Area
- Draper Wildlife Management Area
- Stephens Creek Heritage Trust Area
- Yawkey Wildlife Management Area
- Beach Hill Wildlife Management Area
- Jocassee Gorges
- Shooting Tree Ridge WMA

S.C. Department of Corrections

- Broad River Road Complex
- MacDougall Correctional Institution
- Lieber Correctional Institution
- Ridgeland Correctional Institution
- Leath Correctional Institution

Department of Juvenile Justice

- Willow Lane

Department of Disabilities and Special Needs

- Whitten Center
- Midlands Center

Department of Mental Health

- Crafts Farrow Complex

Midlands Technical Institute

- Powell Road Complex

Timber Revenue

Four state-owned tracts were marked or cruised for timber sales and produced an estimated volume of 411,221 board feet of pine sawtimber and 2,408 cords of pine pulpwood. Additionally, three timber sales were held during FY 2003, generating a total of \$102,224 in revenues.

MANCHESTER STATE FOREST

Manchester State Forest, located in Sumter County and Clarendon County, is currently comprised of approximately 25,800 acres. From 1939 to 1955, Manchester was leased by the State of South Carolina from the federal government and managed by the South Carolina Forestry Commission. The State received title to the property on June 28, 1955.

Receipts For Operating Budget:

<u>Activity</u>	<u>Receipts</u>
Timber Sales	\$235,720.43
Pinestraw Sales	\$77,456.00
Land Lease Payments	\$49,354.18
Wildlife Management Area Payments	\$ 600.00
Trail and Special Use Permits	\$34,475.25
Total	\$397,605.86

Note: Due to a special proviso included in the state budget for FY2002-2003, the Forestry Commission was allowed to retain 100% of receipts for agency operations. Without this special proviso, 25% of all receipts would have been used to support Sumter and Clarendon County school systems.

Timber sales were concentrated on thinnings in overstocked stands and conversion of older slash pine stands to longleaf plantations.

Silvicultural Practices

Due to a break in the continued extreme drought conditions, those areas previously site prepared and not planted as well as those areas recently harvested were planted with longleaf pine. Approximately 18 acres of fallow wildlife opening were planted with improved coastal loblolly pine.

The following species, number of trees and acres were planted:

<u>Species</u>	<u>Trees</u>	<u>Acres</u>
Improved Coastal Loblolly Pine	10,000	18
Containerized Longleaf Pine	<u>248,000</u>	<u>364</u>
Total Trees Planted	258,000	382 Total Acres

A total of 442 acres were prescribed burned for wildlife habitat enhancement, hardwood control and fuel reduction.

Again, drought conditions and smoke management concerns were the limiting factors in the completion of the proposed schedule of burning.

In excess of 1,500 acres were delineated by timber type using GPS in preparation for development of a new management plan for Manchester.

Forest Protection

One (1) wildfire occurred burning approximately one-tenth acre with minimal damage. Firebreaks were maintained on those areas that were either high risk or of high value. Manchester personnel responded to several fires outside the forest boundaries in assistance to regional fire needs.

Over forty-three miles of boundary line were remarked and signed, and property corners within this area were also located and marked with signs and metal posts.

Recreation/Education

Recreational use of the forest continues to escalate over previous years. Hunting, fishing, horseback riding, motorcycle/ATV riding, mountain biking, and use of the rifle/pistol range continue to be favorite activities.

Six special-use permits were issued for organized events with approximately 1,300 participants.

Manchester staff participated in four educational programs including Wood Magic, State SAF Conference and Palmetto Pride.

Work continued on the "High Hills" section of the Palmetto Trail concentrating on redecking trestles on the Norfolk-Southern Railroad bed, which crosses the Wateree Swamp. Several units of Americorps work groups were used as well as prisoners from the work release program at Wateree Correctional Institute.

In January of 2003, the local working group of the Recreational Advisory Council was organized at Manchester. Members of the council represent equestrian users, motorcyclist and ATV users, bicyclists, hunters, adjoining landowners, environmental groups, rifle and pistol range, and hikers. Their advice and volunteerism will help guide and set the tone for recreation on Manchester.

Wildlife Management

Approximately 25,000 acres of the forest are presently included in the Wildlife Management Area Program through a cooperative agreement between the Department of Natural Resources (DNR), and the South Carolina Forestry Commission. DNR provided technical assistance with game food plot establishment monitoring and dove fields. They also agreed to establish and plant a 150-acre dove field on the Oak Lea Tract. The draw hunts at Oak Lea also increased in popularity as evidenced by the increased number of applications as well as several articles being written about Oak Lea in at least three (3) wildlife and hunting magazines.

Manchester also hosted its annual youth dove hunt on the Bland Tract, which was limited to 35 youths who were required to register in advance.

Replacement of water control structures and dike improvements were completed on the Beidler Impoundment which provided duck hunters the opportunity to hunt a 350 acre area in the Wateree Swamp.

During the year DNR also provided technical assistance with deer herd dynamics, tracking various game and non-game species including quail, turkey, and fox squirrels and pond management. DNR also assisted in law enforcement on the forest through interagency cooperation.

Planting and maintenance was conducted on 404 acres of wildlife areas. Corn, popcorn, sunflowers, sorghum-browntop-millet-benne mix, wheat, rye, clover, vetch and bicolor were utilized to diversify the food supply. Several of the plantings were donated by the Department of Natural Resources and planted by Manchester and DNR personnel.

Rare, Threatened, and Endangered Species Management

Manchester currently maintains six (6) clusters of Red Cockaded Woodpecker. Colony sites continue to be monitored along with scouting for new cavity and start trees in cooperation with biologists from the neighboring Poinsett Gunnery Range (USAF). An agreement was reached with the USAF that would allow them to monitor and work on the colony sites only with prior agreement with the Manchester State Forest director.

Research

Manchester continues to cooperate with the SCFC Nursery Section by providing eight (8) sites for clone banks, seed orchards, and progeny tests.

SAND HILLS STATE FOREST

Sand Hills State Forest (SHSF) covers approximately 46,000 acres with 45,000 acres in Chesterfield County and 1,000 acres in Darlington County. The forest was operated under a use agreement with the federal government from 1939 until 1991. In July of 1991, title to Sand Hills State Forest was transferred to the South Carolina Forestry Commission.

Receipts

Since 1967, Sand Hills has been totally self-supporting. The only appropriated funds coming to Sand Hills are earmarked for the development of the H. Cooper Black Memorial Field Trial and Recreation Area.

Receipts For Sand Hills Operating Budget

<u>Activity</u>	<u>Receipts</u>
Timber Sales	\$842,020.97
Pinestraw Sales	\$54,218.86
Land Lease Payments	\$2,204.00
Wildlife Management Area Payments	\$14,548.70
User Fees (includes permit sales from PRT)	\$18,609.91
Prior Yr Refund	\$2,919.44
Donation	\$25.00
Seedling Sales	\$196.00
Total	\$934,742.88

Note: Due to a special proviso included in the state budget for FY2002-2003, the Forestry Commission was allowed to retain 100% of receipts for agency operations. Without this special proviso, 25% of all receipts would have been used to support Chesterfield and Darlington County school systems.

Silvicultural Practices

Site preparation for planting longleaf pine by disking and V-blading was completed on 384 acres. These areas were in slash pine that had stagnated. Bareroot longleaf seedlings were planted on 742 acres on SHSF. Containerized longleaf seedlings were planted on 1,031 acres on Sand Hills and 60 acres on Carolina Sandhills National Wildlife Refuge.

The following species and number of seedlings were planted:

Containerized Longleaf Pine	600,000
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In 1999 Sand Hills started a pinestraw enhancement program. Under this program an individual from the general public can enter into a four-year agreement with the Forestry Commission to clear up land for pinestraw production. The individual agrees to eradicate 90% of all hardwoods on a tract of land using chemicals. In exchange, that person may harvest all the pinestraw that falls during the 4 years of the agreement. After the agreement expires, the acreage becomes part of SHSF's quality straw production program. The straw from these areas is offered for sale on a lump sum sealed bid basis at three-year intervals. Currently there are 16 individuals working on approximately 18,693 acres of land. The value of the pinestraw in the year 2005 will approach \$1,000,000.

Pinestraw Enhancement Program

Fiscal Year	Contracts	Acres
1999	15	4,565
2000	29	5,635
2001	25	6,922
2002	5	1,104
2003	3	467
Total	72	18,693

Forest Protection

No wildfires burned on Sand Hills State Forest in FY 03.

Recreation/Education

Recreational use of the Forest continues to escalate. Hunting, fishing, horseback riding, riding, mountain biking, hiking, bird watching and camping continue to be favorite activities.

ATV use was discontinued July 1, 1999 based on an opinion from the attorney general's office. Environmental studies and mapping on a planned 5,000 acre off highway vehicle (OHV) trail continue. U.S. Fish and Wildlife Service must approve the OHV plan before it can be completed.

The Headquarters Mountain Bike Trail continues to attract riders from the surrounding areas. Sixty nine permits were issued for bike riding.

At Sugarloaf Mountain, there are 7 primitive camping sites for family camping and 8 primitive equestrian campsites. Sand Hills personnel booked 228 reservations for these sites this year. An estimated 2,776 visitors with 499 horses used the campsites and trails.

Cooper Black Recreation area continues to grow. There are now 52 campsites for RV campers. Twenty-seven have electricity and water hookups. The remaining sites are maintained as primitive sites. A clubhouse, kitchen, horse barn, full size arena, two comfort stations, and a dump station are available for use. Ten more corrals were installed this year bringing the total to thirty-six. Five hundred dogs can be housed in the dog pens just miles from the camp area.

Twenty-four weekend events were scheduled at Cooper Black. Reservations for sites at Cooper Black showed an increase from the previous year. Twelve hundred twenty six (1226) reservations were booked. Reservations are required for campsites, stalls, corrals, training sites, arena, clubhouse, kitchen and grounds. Receipts from all reservations totaled \$33,553.00. Twenty five percent of the revenue was used by the Agency by special legislation that was passed by the General Assembly.

Summary of Sand Hills State Forest Recreation Areas

Year	Cooper Black Reservations	Sugarloaf Reservations	Total	Cooper Black Visitors/Horses		Sugarloaf Visitors/Horses		Total Visitors/Horses*	
FY 1999	129	284	413	3,000	815	3,000	1,000	6,000	1,815
FY 2000	504	316	820	3,790	1,662	3,674	1,025	7,464	2,687
FY 2001	711	307	1,018	4,024	1,304	3,456	932	7,480	2,236
FY 2002	874	283	1,157	5,000	1,580	4,200	866	9,200	2,446
FY 2003	1226	228	1,454	4,883	1,175	2,776	499	7,659	1,674

***Number of Visitors and Horses does not include day users nor does it include any visitors from any other user group.**

Trail use permits had a slight increase this year. Sales increased from 839 permits in FY 2002 to 932 in FY 2003. Receipts from designated trail use permits totaled \$18,609.91.

Free-use permits are issued for camping at Sugarloaf Mountain, raking pinestraw for personal use, and gathering firewood. Sand Hills' staff issued 255 this year. Eight of the permits were for raking pinestraw for personal use, 42 for gathering firewood, 1 for collecting insects and the remaining 204 were for camping.

The permit holders hailed from South Carolina, North Carolina, Ohio, Virginia, Alabama, California, Georgia, Massachusetts, and Tennessee. Two holders were from Ontario, Canada and one was from Australia.

Francis Marion University continues using Sand Hills as a place to bring botany students for hands-on plant identification. Professor Jerry Long gave hands on instruction to 40 students this year on 4 visits to Sand Hills.

The Governor's School of Science and Mathematics in Hartsville visited the Forest for a presentation on the Red Cockaded Woodpecker and an overview of forest management practices.

Sand Hills State Forest Permit Summary

Year	Trail-Use Permits	Free-Use Permits	Total
FY 1998	271	217	480
FY 1999	505	329	834
FY 2000	573	412	985
FY 2001	839	299	1,138
FY 2002	932	335	1,267
FY 2003	1,240	255	1,495

A group of 17 students from Warren Wilson College came to Sand Hills to learn more about the Red Cockaded woodpecker and forestry management.

Eleven scout groups used Sugarloaf Mountain for their weekend campouts. Numerous church groups used Sugarloaf Mountain shelters for picnics and retreats. Several family reunions were held as well.

West Florence High School Track Team used H Cooper Black as a training site for cross-country training.

The Teachers Tour visited SHSF this year.

Wildlife Management

Approximately 40,000 acres of the Forest is included in the Wildlife Management Area Program. This is a cooperative agreement between the S.C. Department of Natural Resources and the S.C. Forestry Commission. Department of Natural Resources personnel provide assistance with the game food plot establishment; monitoring deer herd dynamics, tracking various game and non-game species, and pond management. Law enforcement on the forest is provided through interagency cooperation. Sand Hills has a 57-acre public dove field and a 30-acre public dove field. Thirty-five acres of the 57-acre field were planted to annual crops with the remainder planted and maintained in bicolor lespedeza. The 30-acre dove field was planted with sunflowers, sorghum, corn and bicolor lespedeza.

Eighty-two acres (125 plots) were planted as wildlife food plots. These plots were planted in chufa, corn, sunflower, spring game mix, dove mix, dove proso, wild turkey mix, quail mix, sorghum, and bicolor. All plantings were fertilized and limed at the recommended rates. All manageable bicolor patches in compartments 14, 15, and 16 were bushhogged, fertilized, and limed.

Sand Hills' staff planted and maintained 12 wildlife openings for quail. The quail project is a joint project with Quail Unlimited. Quail Unlimited supplied \$1,000 worth of seed and fertilizer for the quail project.

Sand Hills continues to conduct surveys for South Carolina Department of Natural Resources. A furbearer scent survey, fox squirrel survey, turkey survey, and a quail survey were conducted to track population trends.

Rare, Threatened and Endangered Species Management

Population Trends

The number of active clusters on SHSF increased slightly from 2002 at 59 clusters, and the number of potential breeding groups greatly increased from 46 to 55. There are currently 59 active clusters, 5 inactive clusters, and 6 recruitment clusters available to RCWs on SHSF.

Management Activities

Forty seven nesting attempts were made by 45 groups in 2003; 34 of these attempts produced viable offspring. Ninety two chicks were produced in 2003 which is the highest number to be produced on SHSF since we have been monitoring the population. Three adults were banded in 2003.

No artificial cavities were installed on SHSF in 2003. Currently all clusters have at least 4 suitable cavities. No recruitment clusters were installed in 2003. Current recruitment clusters include those created in 2002 that have not been activated and relict clusters that were provisioned with new cavities in 2002 and subjected to habitat improvements.

Habitat improvement continued through mechanical and chemical treatments in pinestraw enhancement areas.

Management Implications

The 2002 and 2003 breeding seasons on SHSF were the most successful since SCDNR started monitoring the population. The increases are probably due to habitat changes that have taken place on the forest. Population increases on SHSF met Recovery Plan standards in both 2002 and 2003 in terms of population growth.

Research

A longleaf pine natural regeneration research project in conjunction with the U.S. Forest Service is still ongoing and has been in effect for 25 years.

A professor from Clemson University set up a turkey litter/water quality survey on the forest in 1999. The professor is now at the University of Georgia but continues the study at Sand Hills.

A sludge research project is on going. A four-year cycle that was started in 1999 continued this year. Turkey litter was added to the study site for comparison with sludge and commercial fertilizer applications and their effects on tree growth and soil chemistry.

FOREST PROTECTION

This section encompasses Fire Management, Law Enforcement, Forest Health, and Equipment programs.

FIRE MANAGEMENT

The South Carolina Forestry Commission is responsible for protecting the forestland of South Carolina, which totals 13,657,033 acres. This total area protected is based on the 2001 Forest Inventory Analysis data with 10% added to cover adjacent non-forest land. This figure includes 101,320 acres of federal land protected under special contract, which includes such lands as the Carolina Sandhills National Wildlife Refuge and the Corps of Engineers land around such lakes as Lake Thurmond, Hartwell, and Russell. Also included is forestland protected by Mutual Aid, which is approximately 824,801 acres of additional federal land that includes lands such as the Francis Marion National Forest, the Sumter National Forest, National Park lands and lands owned by US Fish and Wildlife Service.

Wildfire Summary

Agency firefighters recorded 1,760 wildfires that burned a total of 9,182 acres of forestland and grassland during the fiscal year. **These numbers reflect the lowest fire occurrence and least number of acres lost on record.**

The Paris Mountain Fire burned in January 2003. The fire, approximately 50 acres in size, heavily damaged a home and a greenhouse. This fire later resulted in a Firewise Wildland Urban Interface (WUI) workshop for the citizens of the surrounding communities.

Other significant fires for FY 2003: A wildland fire in Aiken County that burned in difficult terrain; the Horse Pen Fire in Horry County in August 2002, where a burn-over of three wardens occurred with no casualties. Positioning of tractors to block radiant heat, the calmness of the individuals and constant communication with each other contributed to their survival; one warden utilized fire curtains and another deployed his fire shelter. One other fire, the Gold Smith Fire, burned 168 acres in Orangeburg County.

Budget restrictions have reduced the workforce by more than 25%, leaving approximately 19 firefighting positions vacant for at least a portion of the year.

The Space Shuttle Columbia disaster resulted in the dispatch of 12 SCFC personnel with GPS skills, mainly FIA crewmembers, to assist with the shuttle recovery effort in Texas. Other personnel were dispatched on federal assignments: four on western fire details that included prevention teams in New Mexico and Arizona, and one on assignment with APHIS.

Fire Protection Cooperatives

The Forestry Commission has cooperative arrangements with 11 fire and emergency management entities. Activities for each cooperative during FY 2002-03 are as follows:

Southeastern States Forest Fire Compact Commission: Formed in 1954, the Compact allows member states to provide and receive mutual aid in fighting wildland fires. Member states include: Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, and West Virginia. The Forestry Commission received no requests for assistance during the year.

SC Emergency Management Division: SC Forestry Commission personnel responded to two emergency activations during the year. Forestry Commission personnel participated in several EMD emergency response training sessions. The Forestry Commission worked with EMD to apply for one Fire Management Assistance grant from FEMA.

SC Army National Guard: Under an agreement with the National Guard, helicopter firefighting support is available when requested by SCFC. Requests from SCFC are channeled through EMD and the Governor's Office to activate the Guard.

The Guard's primary firefighting mission is providing helibucket service to SCFC Incident Commanders using SCFC's 780-gallon Bambi buckets. Guard helicopters are also available to transport firefighters into rough or inaccessible terrain. No requests for assistance from the National Guard helibucket service were made this year.

Volunteer Fire Assistance Program: The following grants were awarded:

Title II Grants: for structural and wildland firefighting needs – 76 fire departments received \$78,270

National Fire Plan Grants: for wildland firefighting needs (Title IV) – 51 fire departments received \$105,482

Federal Excess Property Program: Acquired 4,462 items with acquisition value of \$3.76 million. Two hundred nineteen (219) pieces of federal excess equipment with an acquisition value of \$3.84 million were loaned to fire departments during the year. At present, 1598 pieces of equipment with acquisition value of \$25.3 million are assigned to 452 fire departments statewide.

National Weather Service: NWS provides daily fire weather forecasts and atmospheric dispersion information. During the year, SCFC and NWS work to improve content of daily weather forecasts.

USDA Forest Service: A mutual aid agreement between the US Forest Service and SCFC allows both parties to provide initial attack firefighting within one-quarter mile of National Forest boundaries.

SCFC provided initial attack on a number of fires on the Francis Marion National Forest during the fire season, and SCFC investigators assisted with wildfire investigation and stake-outs.

DOD Corps of Engineers: Beginning in 1997, SCFC has provided all fire suppression services on 55,320 acres of Corps of Engineers land. Under the terms of the agreement, actual fire suppression costs are reimbursed to the SCFC.

USDI Fish and Wildlife Service: Under the terms of a 1992 land acquisition agreement, SCFC provides initial attack fire suppression on the 46,000 acre Carolina Sandhills National Wildlife Refuge. The agreement terminates in 2042. SCFC maintains mutual aid firefighting agreements with the following National Wildlife Refuges: Ace Basin, Cape Romain, Savannah, Pinckney Island, and Santee.

USDI Park Service: Agreement maintained; no reportable activity.

Wildland Fire Protection Partnership: Organized in 1991, the Partnership seeks solutions to wildfire management problems in the wildland-urban interface. Membership includes the SC Forestry Commission, USDA Forest Service, SC Firemen's Association, Department of Health and Environmental Control, SC Division of Emergency Preparedness, SC Fire Marshal, SC Fire Academy, and SC Forestry Association (ex officio).

Fire Weather

Weather Stations: The Forestry Commission, USDA Forest Service, National Park Service, Department of Defense (Ft. Jackson), and USDI Fish and Wildlife Service share a network of 12 Automated Weather Stations across the state. Data from these stations are used in daily calculations for the National Fire Danger Rating System. Weather readings from these stations are available 24 hours a day for wildfire and prescribed fire management purposes.

Inches Precipitation: FY 2003*

Month	Precipitation
July 2002	3.24
August	6.29
September	5.48
October	4.71
November	4.37
December	4.76
January 2003	1.78
February	4.08
March	7.51
April	6.22
May	5.74
June	7.00
Total	61.18

*Source – National Climatic Data Center

Precipitation Last 5 Years*

Fiscal Year	Precipitation Inches	Departure from Normal**
1998-99	42.83	-5.44
1999-00	42.24	-6.03
2000-01	40.56	-7.71
2001-02	34.07	-14.20
2002-03	61.18	+12.91

*Source – National Climatic Data Center

**statewide normal, based on previous 30 years is 48.27 inches

Readiness Plan: The daily readiness level of Forestry Commission firefighters is based on fire danger data, available number of firefighters, and status of firefighting equipment. Average readiness levels for each of the three regions for FY 2003 are as follows:

Region	Coastal	Pee Dee	Piedmont
Readiness 1 (No wildfire danger)	9 days	60 days	0 days
Readiness 2 (Low wildfire danger)	225 days	219 days	246 days
Readiness 3 (Moderate wildfire danger)	129 days	80 days	100 days
Readiness 4 (High wildfire danger)	2 days	6 days	16 days
Readiness 5 (Extreme wildfire danger)	0 days	0 days	3 days

Burning Ban and Red Flag Fire Alert: There was one Red Flag Fire Alert implemented during the year that occurred in September 2002. The reason for the alert was a dry, cold front moving through the state bringing low humidities and high winds.

No State Forester's Burning Bans were declared during the year.

Dispatch and Air Operations

Dispatch: Forestry Commission dispatch is by closest available resource, regardless of political or administrative boundaries. Dispatching was handled by regional dispatch centers located in Walterboro, Florence, and Newberry.

Air Operations: Specially trained private aerial contractors provide basic wildfire detection services. Forestry Commission pilots equipped with Federal Excess planes provide incident reconnaissance as well as additional detection service.

During the year, SCFC pilots flew a total of 912 hours (Coastal—267 hours, Pee Dee—246 hours, Piedmont—399 hours); contractors flew a total of 2,073 hours.

Prescribed Fire

Certified Prescribed Fire Manager Program: Two Certified Prescribed Fire Manager Programs were conducted during the year with 34 participants. Interest in this program is leveling off as the majority of those conducting prescribed burning throughout the state have attended the training over the last several years.

Prescribed Burning for Forestry, Wildlife, and Agriculture (Smoke Management Guidelines)

Region	Forest Understory		Forestry Site Prep.		Wildlife		Agriculture	
	Number	Acres	Number	Acres	Number	Acres	Number	Acres
Coastal	1,527	149,474	2,005	4,740	392	35,064	2,372	38,218
Pee Dee	816	57,307	1,027	4,354	223	15,497	2,091	44,710
Piedmont	360	29,189	1,943	5,022	89	4,449	461	3,067
Totals	2,703	235,970	4,975	14,116	704	55,010	4,924	85,995

Total Forestry, Wildlife & Agriculture Burns: 13,306 for 391,091 acres

Fire Prevention Information

Wildland-Urban Interface (WUI): Work continued on assessing wildland-urban interface risks. A number of Firewise workshops were presented, including one each in the Aiken and Paris Mountain areas following significant interface fires in these communities. The SC Forestry Commission has received a 2003 Southern Wildland Urban Interface Grant to address the Linear Urban Interface (LUI) problem which will deal with wildland fuels that produce significant smoke on heavily trafficked roadways.

Fires By Cause

Cause	Number	Acres Burned	Average Acres per Fire	Percent of Total Number FY 03
Lightning	173	1911.7	11.1	9.83
Campfire	10	69.5	7.0	0.57
Smoking	57	227.1	4.0	3.24
Debris Burning	693	2580.8	3.7	39.37
Incendiary	319	1870.5	5.9	18.13
Equipment	164	746.1	4.5	9.32
Railroad	10	219.4	21.9	0.57
Children	128	486.5	3.8	7.27
Miscellaneous	206	1071.4	5.2	11.70
TOTALS	1760	9182.0	5.2	100.00

Five-Year Summary: All Fires

Fiscal Yr.	Acres Protected	# Fires	Acres Burned	Avg. Acres/Fire	% Area Burned
1998-99	12,807,924	6,615	35,155.5	5.3	0.27
1999-00	12,807,924	4,715	21,399.3	4.5	0.17
2000-01	12,807,924	5,283	29,933.9	5.7	0.23
2001-02	12,807,924	6,378	49,371.8	7.7	0.39
2002-03	13,657,033	1,760	9,182.0	5.2	0.07
Five Year Averages		4,950	29,008.5	5.7	0.23

Acres Protected and Total Burning Notifications by County

County	Acres Protected	Smoke Mgt. Notifications	Other Notifications
Abbeville	248,551	107	2,707
Aiken	524,743	672	11,341
Allendale	199,005	332	740
Anderson	216,023	184	12,149
Bamberg	202,862	325	1,375
Barnwell	266,959	397	2,770
Beaufort	130,448	260	7,070
Berkeley	595,291	630	13,711
Calhoun	151,294	192	2,496
Charleston	318,526	335	6,780
Cherokee	168,077	101	4,014
Chester	315,565	120	2,957
Chesterfield	416,239	397	6,141
Clarendon	238,952	287	3,310
Colleton	560,896	819	11,158
Darlington	176,333	192	5,390
Dillon	163,935	221	2,729
Dorchester	272,524	239	9,492
Edgefield	279,433	233	1,928
Fairfield	408,433	91	1,973
Florence	308,707	389	10,206
Georgetown	400,136	436	7,837
Greenville	296,082	169	15,678
Greenwood	205,593	95	3,164
Hampton	303,663	707	3,328
Horry	493,012	595	16,815
Jasper	341,036	467	2,751
Kershaw	376,376	188	13,672
Lancaster	291,845	89	4,308
Laurens	337,499	90	4,586
Lee	121,735	168	1,174
Lexington	256,939	282	36,547
Marion	226,896	161	6,509
Marlboro	226,676	153	4,508
McCormick	223,394	74	1,058
Newberry	334,566	118	2,548
Oconee	292,590	228	9,912
Orangeburg	446,887	920	8,268
Pickens	236,029	161	8,629
Richland	352,904	176	7,257
Saluda	196,376	170	1,302
Spartanburg	286,496	238	8,616
Sumter	268,338	285	8,301
Union	277,640	53	538
Williamsburg	407,761	596	4,129
York	293,768	164	11,313
Total	13,657,033	13,306	313,187
	Total No. Smoke Mgt. & Other Notifications:		326,493

TOTAL ALL LAND FIRES BY COUNTY AND MONTH, FISCAL YEAR 2003

County	2002												2003												Total Number	Total Acres
	July		August		September		October		November		December		January		February		March		April		May		June			
	No.	Acres	No.	Acres	No.	Acres	No.	Acres	No.	Acres	No.	Acres	No.	Acres	No.	Acres	No.	Acres	No.	Acres	No.	Acres	No.	Acres		
Abbeville	17	14.3	5	5.9	4	34.3	1	6.0	2	1.0	1	0.8	7	4.6	3	9.2	4	7.5	3	0.8			1	0.5	48	84.9
Aiken	17	39.9	18	140.5	6	261.7			3	20.8	6	15.4	13	38.9	8	35.0	5	19.0	6	45.2	2	1.1	3	1.9	87	619.4
Allendale	2	61.8	7	35.9									2	50.0											11	147.7
Anderson	5	84.0	8	18.2	1	0.2			1	0.1	3	11.0	5	3.4	2	0.8	4	23.0			1	1.0			30	141.7
Bamberg	2	4.0	6	35.2	1	0.1					1	10.0	2	4.2	4	4.2			3	0.9					19	58.6
Barnwell	3	48.3	5	5.2	1	1.0					3	6.0	8	13.0	1	35.0	1	1.0	1	10.0					23	119.5
Beaufort			3	20.1							1	2.0	2	6.0	3	2.6	1	0.2	2	3.0					12	33.9
Berkeley	12	55.8	17	107.6	3	4.2	1	2.0			3	3.2	7	13.0	9	135.0	2	26.0	7	73.2					61	420.0
Calhoun	5	14.2	4	3.5	2	6.1			1	0.1	3	5.0	3	0.3	5	7.3	2	2.1	1	8.0					26	46.6
Charleston	1	1.5	2	28.0									3	9.0	3	31.1	3	7.0			1	20.0			13	96.6
Cherokee	7	16.0	4	45.4							1	6.0	2	22.0	1	5.5					1	4.0			16	98.9
Chester	8	105.1	12	50.1									3	3.0	2	5.5	2	3.0	1	3.0	1	1.0			29	170.7
Chesterfield	15	44.5	14	110.3	1	4.0			1	2.0	4	39.0	14	43.0	7	33.4	6	62.2	5	23.1			1	1.0	68	362.5
Clarendon	10	187.3	15	108.4	3	4.0			4	8.0			5	8.2	2	3.0					3	6.5			42	325.4
Colleton	18	112.3	10	133.3	1	0.5	2	0.2			4	5.1	15	72.7	15	159.1	4	32.0	2	5.1	1	0.1	1	0.1	73	520.5
Darlington	5	4.4	12	52.8					3	3.1	2	4.0	9	54.7	13	27.3	4	20.3	3	7.0	1	40.0	3	12.6	55	226.2
Dillon	5	3.1	8	6.5	2	0.4	1	1.0			4	7.2	4	16.0	4	2.0	1	1.0	3	33.5					32	70.7
Dorchester	10	102.9	7	49.2	1	1.0					1	1.0	5	24.5	3	16.5	1	2.0			1	5.0			29	202.1
Edgefield	2	2.5	5	42.5	1	1.0							1	1.5			1	4.0							10	51.5
Fairfield	17	135.7	8	11.0	2	8.2					3	1.6	2	30.1			2	32.0	1	1.0			2	20.2	37	239.8
Florence	13	18.9	10	11.5	1	10.0			2	7.3	3	0.4	10	56.4	9	6.0	3	4.6	4	3.4	1	2.0	2	1.1	58	121.6
Georgetown	6	101.6	2	130.0							1	0.1	9	105.1	9	20.2	2	3.0	5	63.0	1	2.0			35	425.0
Greenville	4	9.3	5	6.2	2	17.0			2	35.2	1	4.0	6	95.0	3	4.2			1	0.2					24	171.1
Greenwood	8	67.8	2	27.0									3	1.8	2	4.2	2	2.3	1	1.0					18	104.1
Hampton	6	32.7	2	0.3	1	0.1							3	1.6	3	7.0	1	8.0	1	0.1	1	0.2			18	50.0
Horry	17	57.2	17	409.4	3	6.0	1	4.5	2	1.7	8	26.6	14	25.9	9	89.4	2	5.0	4	8.3	2	0.5	1	1.0	80	635.5
Jasper	3	9.1	6	6.4	2	0.5					2	27.0			6	10.3			4	1.5	2	0.6			25	55.4
Kershaw	14	87.4	15	44.5	3	26.1	1	3.0	1	15.0	1	2.5	11	29.1	6	10.1	4	2.6	6	4.2	2	2.1	2	3.1	66	229.7
Lancaster	3	8.0	13	30.6									1	0.5	4	13.1	2	1.0	1	40.0					24	93.2
Laurens	4	5.7	13	60.8	2	5.0	1	1.0					2	2.0	4	8.8	1	2.0							27	85.3
Lee	1	0.5	1	1.0							1	1.5	6	23.0	2	2.5	2	1.1	1	0.2	1	0.5	1	0.1	16	30.4
Lexington	23	64.4	15	12.8	2	9.5	2	1.4	1	3.0	2	3.0	10	66.1	7	65.9	4	2.6	4	5.6	3	0.6	3	0.6	76	235.5
Marion	8	89.4	2	15.0	1	0.1							8	10.8	5	21.7	2	4.1	4	12.8			1	1.0	31	154.9
Marlboro	15	62.0	4	3.4	1	0.2			2	13.0	4	3.0	8	49.9			5	9.0	3	8.0	1	0.1	3	5.1	46	153.7
McCormick	5	1.0	7	35.0	1	0.1					4	0.8	1	40.0	1	0.5	1	0.3	1	6.0					21	83.7
Newberry	7	361.6									1	1.0	1	0.5			1	0.5					1	0.3	11	363.9
Oconee	3	6.5	7	12.0	1	8.0	1	0.1	4	15.3	2	3.5	3	3.7	2	6.0	5	18.9			1	0.5			29	74.5
Orangeburg	27	338.1	21	77.6	8	18.8	1	0.3	1	2.0	7	60.0	26	151.1	18	72.3			4	2.6	2	2.1	3	9.2	118	734.1
Pickens	6	11.7	7	1.9	2	0.8			3	5.7	2	2.4	2	2.0	1	1.5	7	8.7	5	32.0			1	1.0	36	67.7
Richland	21	67.7	7	210.5	1	0.2			2	2.5			7	58.1	2	6.0	2	28.0	2	6.0					44	379.0
Saluda	5	180.3	10	42.3			1	0.2	1	0.1	1	0.1							1	0.5					19	223.5
Spartanburg	4	5.0	7	10.5	1	2.0			1	5.0			2	1.2	1	2.0	3	5.7	2	6.0					21	37.4
Sumter	20	65.4	31	128.0	2	1.0			2	2.0	5	7.5	13	32.2	9	15.4	2	17.0	2	3.1	1	0.1			87	271.7
Union	4	33.6	4	20.5	1	2.5			1	4.0	2	3.1	6	7.8	1	8.0	2	0.3	1	3.0	1	0.5			23	83.3
Williamsburg	8	15.8	10	7.1	2	10.2			2	0.3	3	2.3	10	30.5	18	120.3	5	16.0	3	1.3					61	203.8
York	6	28.2	11	30.6							1	0.3	3	4.8			3	12.8			1	0.1			25	76.8
Grand Total	402	2766.5	399	2344.5	66	444.8	13	19.7	42	147.2	91	266.4	277	1217.2	207	1007.9	104	395.8	98	422.6	32	90.6	29	58.8	1760	9182.0

TOTAL ALL LAND FIRES BY COUNTY AND CAUSE, FISCAL YEAR 2003

County	Lighting		Campfire		Smoking		Debris Burning		Incendiary		Equipment Use		Railroad		Children		Miscellaneous		Total Number	Total Acres
	No.	Acres	No.	Acres	No.	Acres	No.	Acres	No.	Acres	No.	Acres	No.	Acres	No.	Acres	No.	Acres		
Abbeville	4	5.4			3	5.8	14	13.0	6	7.4	8	38.6	1	0.5	7	9.7	5	4.5	48	84.9
Aiken	16	144.6			5	34.0	28	82.3	9	51.4	3	2.7			12	282.0	14	22.4	87	619.4
Allendale	7	82.9					2	20.8			2	44.0							11	147.7
Anderson	3	67.0	2	9.1	4	8.8	10	7.0	2	15.5	2	15.0					7	19.3	30	141.7
Bamberg	2	17.1					11	15.1	3	11.1	2	15.1					1	0.2	19	58.6
Barnwell	6	47.5			2	4.5	9	55.0			2	2.5			1	1.0	3	9.0	23	119.5
Beaufort							6	3.9	4	10.0					2	20.0			12	33.9
Berkeley	3	45.1			1	0.1	28	156.0	19	196.8	1	0.1	1	0.1	4	5.1	4	16.7	61	420.0
Calhoun	2	13.0					17	20.8	3	6.6	1	2.0					3	4.2	26	46.6
Charleston	2	19.5			1	1.0	5	37.0	5	39.1									13	96.6
Cherokee	3	7.8			2	4.3	2	6.5	5	63.1	1	10.0			1	5.5	2	1.7	16	98.9
Chester	4	118.0	1	0.5	3	7.5	8	12.0	2	1.1	5	10.6	1	1.0	2	15.5	3	4.5	29	170.7
Chesterfield	6	60.3			2	3.0	29	201.4	5	5.7	15	79.0			4	4.6	7	8.5	68	362.5
Clarendon	5	185.0			1	4.0	15	41.0	12	83.2	5	10.0			2	1.1	2	1.1	42	325.4
Colleton	3	7.5					41	294.2	21	209.0	6	6.7			1	0.1	1	3.0	73	520.5
Darlington	4	85.1			1	6.0	29	65.9	8	31.2	4	24.2			6	6.3	3	7.5	55	226.2
Dillon	1	0.2			1	0.1	13	13.2	6	18.0	7	36.0			1	0.1	3	3.1	32	70.7
Dorchester	7	50.3					14	87.3	6	58.0					1	5.0	1	1.5	29	202.1
Edgefield	3	2.6					5	12.8			1	0.1					1	36.0	10	51.5
Fairfield	4	65.0			2	0.3	10	52.9	3	47.0	12	59.5					6	15.1	37	239.8
Florence	7	3.5	1	25.0			26	51.4	12	27.8	1	1.0			5	10.2	6	2.7	58	121.6
Georgetown	5	212.1					13	29.4	10	158.0	2	9.0	1	2.0			4	14.5	35	425.0
Greenville			2	5.5			11	76.4	6	54.5					2	1.2	3	33.5	24	171.1
Greenwood	2	60.0			1	0.2	4	10.4	2	2.3	3	22.1	1	1.0	1	0.5	4	7.6	18	104.1
Hampton	7	31.7					7	16.1	2	1.1	2	1.1							18	50.0
Horry	9	31.4					24	373.2	33	188.9	3	27.0			6	3.4	5	11.4	80	635.3
Jasper							11	32.3	8	18.4	3	1.5			2	3.1	1	0.1	25	55.4
Kershaw	6	87.0	1	1.0	6	7.4	30	84.1	5	12.0	6	12.4			4	2.6	8	23.2	66	229.6
Lancaster	1	5.0			1	0.1	8	20.0	4	49.0	5	2.6			2	10.0	3	6.5	24	93.2
Laurens	1	2.0	1	28.0	2	3.0	6	11.0	7	5.8	1	5.0	3	13.0	1	3.0	5	14.5	27	85.3
Lee					2	1.0	6	11.1	5	15.7	2	1.1					1	1.5	16	30.4
Lexington	2	4.0	1	0.1			27	45.6	5	40.5	8	7.9			17	16.2	16	121.2	76	235.5
Marion	3	85.5			1	1.0	16	50.4	3	10.3	1	0.1	1	0.8			6	6.8	31	154.9
Marlboro	3	16.1					13	41.2	20	54.5	3	36.4			3	3.2	4	2.3	46	153.7
McCormick	4	10.0	1	0.3	1	5.0	5	1.6			1	6.0			1	0.1	8	60.7	21	83.7
Newberry	3	48.0					1	0.5							7	315.4			11	363.9
Oconee							17	44.4			4	7.6			2	0.7	6	21.8	29	74.5
Orangeburg	15	159.3			9	118.5	42	152.3	20	66.9	15	47.4			7	10.6	10	179.1	118	734.1
Pickens	2	0.6					18	48.7	6	6.6					2	1.5	8	10.3	36	67.7
Richland	2	2.1					13	39.3	6	72.5	3	4.0	1	201.0	11	39.1	8	21.0	44	379.0
Saluda	5	48.2					3	4.2	2	12.2	9	158.9							19	223.5
Spartanburg	1	1.0					11	21.2	1	1.0					4	5.0	4	9.2	21	37.4
Sumter	5	26.2			4	8.0	41	130.1	12	73.1	9	10.1			8	6.1	8	18.1	87	271.7
Union	1	30.0					6	5.4	4	6.8	2	16.5			2	4.5	8	20.1	23	83.3
Williamsburg	2	6.0			1	1.0	32	66.6	25	129.7	1	0.5							61	203.8
York	2	17.1			1	2.5	6	15.8	2	8.5	3	11.8			4	9.5	7	11.6	25	76.8
Grand Total	173	1910.7	10	69.5	57	227.1	693	2580.8	319	1870.3	164	746.1	10	219.4	128	486.5	206	1071.3	1760	9181.7

FOREST HEALTH

The Forest Health Program, in cooperation with the State Division of Plant Industry and the U.S. Forest Service, maintains a program to detect, evaluate, and suppress forest pests. Through cooperative agreements, these agencies make their technical assistance and advice available to the Forestry Commission.

The current forest pest detection and reporting system involves the reporting by field foresters of forest pests that are causing abnormal losses, require control action, or which may present new problems. Aerial surveys are made periodically for specific pests to determine occurrence and the need for suppression action.

Major Insect Problems

Southern Pine Beetle

The Southern Pine Beetle outbreak that began in York County in 1997 continued to increase in intensity and scope. As of June 30, 2003 there were 25 counties in outbreak status. These were Abbeville, Anderson, Beaufort, Berkeley, Cherokee, Chester, Colleton, Dorchester, Edgefield, Fairfield, Greenville, Greenwood, Kershaw, Lancaster, Laurens, Lexington, McCormick, Newberry, Oconee, Pickens, Richland, Saluda, Spartanburg, Union and York. Some infestations reached several hundred acres in size.

The calendar year 2003 was our worst on record for losses to Southern Pine Beetle. In that period we had over \$255 million in pines killed by the SPB.

In fiscal year 2003, the losses were somewhat less. During that time, SCFC foresters and technicians plotted 32,313 active beetle spots containing 12,786,831 trees. This timber had an estimated volume of 726,800 cords and 511,473 thousand board feet. The green value of this timber was \$163,455,587.

Because of the severity and scope of the outbreak, the SCFC requested the assistance of the Governor. He declared a forest pest emergency and activated the Governor's Disaster Salvage Council. This group assisted with marketing, public relations and other aspects of the control program.

The SCFC continued in a SPB suppression program in cooperation with the USFS. This program included funding to operate cut and leave controls on isolated or non-merchantable SPB spots. During the year we assisted 44 landowners by funding cut and leave controls on their lands.

The suppression program also funded eight positions in the agency redirecting existing employees to the SPB program from other areas such as forest management and fire control. Without the SPB program, these positions could have been lost to budget cuts.

During the spring of 2003, 31 counties were pheromone trapped for prediction of Southern Pine Beetle population trends. In stark contrast to the previous year, no counties trapped enough beetles to predict a severe outbreak. Only Cherokee and Pickens Counties trapped enough beetles to expect high insect populations. Twelve additional counties in the piedmont had predictions of moderate beetle activity. These were Abbeville, Edgefield, Fairfield, Greenwood, Lancaster, Lexington, McCormick, Newberry, Oconee, Richland, Saluda and York. Aerial surveys were in progress at the end of the fiscal year and very little beetle activity was seen outside of the mountains.

100% surveys were flown in FY 2003 in all outbreak counties and we saw the best salvage/suppression rates in recent history. Over 22% of the beetle spots were controlled and these contained more than 34% of the trees killed. Surveys and the suppression program are continuing.

The U.S. Forest Service has funded a new initiative that is targeted at preventing or reducing Southern Pine Beetle damage. In this program SCFC personnel make forest management recommendations for practices known to minimize future beetle damage. These include thinning, prescribed burning, planting at low density, matching

planted species to site, and other known mitigation measures. This program will fund approximately nine forester level positions.

Hemlock Woolly Adelgid

An exotic insect pest of hemlock was discovered in South Carolina this year. It is the Hemlock Woolly Adelgid, a small insect that feeds by sucking plant juices from its host tree. Unfortunately, heavy infestations of this pest kill hemlocks and control is very difficult, especially in the general forest. Clemson University has established an insect rearing center to raise insect predators of the adelgid, but it will be at least a year before it is operational. We may face the loss of hemlock as an important forest species.

Major Disease Problems

Oak Wilt

Oak wilt disease has been identified in Aiken, Barnwell, Chesterfield, Kershaw, Lancaster, Lee, and Richland counties. Except for the recent discoveries in Aiken and Barnwell Counties the disease appears to be static and causing losses only to low value oaks. Since there is potential for loss of valuable trees, including urban trees, periodic surveys are made to evaluate the spread.

Dutch Elm Disease

Dutch Elm disease has been confirmed in Aiken, Anderson, Cherokee, Chester, Chesterfield, Edgefield, Fairfield, Greenville, Greenwood, Kershaw, Lancaster, Laurens, Lexington, Marlboro, Newberry, Oconee, Pickens, Richland, Saluda, Spartanburg, and York counties. It is expected to gradually spread through the state because the primary agent of spread is the smaller European elm bark beetle that occurs statewide.

Dogwood Anthracnose

In 1988 a new anthracnose disease of dogwood was noted for the first time in South Carolina. This disease is caused by the fungus, *Discula destructiva*. Symptoms include foliage blighting, canker formation, and progressive deterioration. The fungus usually kills infected trees in two to three years. At this time infected trees have been found in Anderson, Greenville, Laurens, Oconee, Pickens, and Spartanburg counties. As part of a southwide effort, the Forestry Commission has established 19 permanent plots in the counties known to harbor infections of the fungus. The dogwoods in those plots will be monitored periodically to determine the rate of spread of this potentially devastating disease.

Sudden Oak Death

Sudden Oak Death is an exotic disease caused by a fungus in the genus *Phytophthora*. It is presently known to occur only on the West Coast in the USA. This disease kills oaks and causes leaf spots on many other species. Testing of eastern species of oaks in California has shown that they could be susceptible to this disease if it occurs here.

As part of a southeastern project, we are cooperating in a survey to be sure the disease does not occur here. Oaks and rhododendrons were sampled in the forest adjacent to commercial nurseries. At this time no sample results are available from the lab at Clemson, but no oak mortality fitting the disease profile was located.

Miscellaneous Insect And Disease Checks

Commission foresters made approximately 3,186 field checks of insect and disease problems and made recommendations for prevention and control. Other inquiries were handled by telephone, mail, and personal contact.

Insect And Disease Laboratory

During Fiscal Year 2002-2003, the Insect and Disease Laboratory processed 63 samples. Commission employees and

private individuals submitted these for analysis. Recommendations for control of various pests identified were given where needed. In addition to these samples, 25,674 southern pine beetles and 34,640 clerid were counted in the lab. Insect and disease collections from two Ranger-Technicians were processed for training purposes.

Exotic Insect Trapping Project

The I&D Unit is cooperating with the US Forest Service in a program to identify exotic insects which may have become established in the state. At three locations we have placed four different pheromone traps. These traps should catch bark beetles and ambrosia beetles that can be sent to the USFS for analysis. The traps are checked every two weeks and insects captured are collected and sent to a taxonomist for identification. The results of the survey will be published upon completion.

Forest Health

The SCFC entered into agreement with the USFS to evaluate permanent Forest Health plots throughout South Carolina. This was done by the Management Section and reported there. As another part of this program, the Forestry Commission also received additional funding for off-plot activity to survey for and report on other forest insects and diseases.

In conjunction with the spring 20% beetle survey, the entire state was surveyed for defoliation, beaver damage, fire, and annosus root rot damage.

Major defoliation continued this year due to an outbreak of Forest Tent Caterpillar. Larvae of this insect defoliated gum and other bottomland hardwoods over 185,875 acres in 16 counties. Defoliation occurred until late May at which time the insects pupated and became adults. The most impacted areas were along the Congaree, Wateree, Upper Santee, Pee Dee basins, and in many low country swamps.

Timber losses due to beaver impoundment and feeding were seen on a total of 10,795 acres. Fire mortality was detected on 6,910 acres. The estimated value of beaver and fire-killed timber was \$5.7 million. Annosus root rot was also identified on 50,040 acres. Value lost due to annosus was estimated to be \$1.3 million.

EQUIPMENT

The Equipment Program is responsible for development and implementation of statewide activities concerning use, design, and maintenance of specialized forest fire control equipment.

The program provides technical assistance and advice to repair shops, developing specifications for fire suppression equipment and motor vehicle fleet, and arranging training for all field mechanics.

All regular and specialized fire suppression equipment is modified and processed for field use at the Commission's Central Repair Shop. The Central Repair Shop personnel made numerous repairs to Forestry Commission vehicles and equipment and manufactured fire suppression equipment. Following are some of the major accomplishments of the Central Repair Shop:

- Serviced and maintained vehicles/equipment assigned to Columbia Office/Shop Complex, Richland and Lexington Counties, and Creech Seed Orchard in Sumter County.
- Provided maintenance assistance to the Region Repair Shops
- Processed new motor vehicle equipment

Maintenance facilities at the Regions, State Forests, Taylor Nursery, Neiderhof Seed Orchard and Central Repair Shop were all certified by the State Fleet Management.

Equipment Purchased

Coastal Region

Five (5) 2003 Dressta crawler tractors
Thirteen (13) 2003 Fesco wheel fire plows
One (1) 2003 Fesco RM900 fire plow

Pee Dee Region

Six (6) 2003 Dressta crawler tractors
Ten (10) 2003 Fesco wheel fire plows

Piedmont Region

Four (4) 2003 Dressta crawler tractors
Three (3) 2003 Fesco wheel fire plows
Two (2) 2003 Fesco RM900 fire plows

Manchester State Forest

One (1) 2003 Chevrolet Blazer

Sand Hills State Forest

One (1) 2003 Dressta crawler tractor
One (1) 2003 Fesco RM900 fire plow
One (1) 2003 Fesco wheel fire plow

Columbia Headquarters

Central Repair Shop initiated purchasing, fabrication, and organized the modification of crawler tractors for field use.

The Central Repair Shop prepared and organized the fire suppression equipment for an auction held at its headquarters in October 2002. The auction netted the Forestry Commission \$114,020.00. These proceeds are used to purchase like equipment.

Received 1.8 million dollars in recurring funds to purchase fire suppression equipment.

FIA purchased one (1) 2003 1/2 ton 4x4 extended cab Chevrolet truck.

LAW ENFORCEMENT

The Forestry Commission had 45 commissioned officers including 2 full time investigators during fiscal year 2003. They are trained and experienced in arson, forest product theft and fraud, and related crime investigations.

During the year, investigators cleared 170 timber transaction cases, involving timber valued at \$710,148. In addition 30 cases were pending court or pleas at the end of the year, with a timber value at \$146,824.

Officers also investigated 593 fires and made 149 prosecutions of fire law violations.

Law Enforcement Report, Fiscal Year 2003

County	Prosecutions				Investigations				State Forests			
	Outdoor Burning		Woods Arson	Juvenile cases	Total	Fire	Smoke	Timber Theft/Fraud		Burn Site		
	Prosecutions	Fines						Investigated	Settled	Inspections	Prosecutions	Fines
Abbeville	0					7		6	5	0		
Aiken	5	\$150.00	1	1	7	7	1	18	16	0		
Allendale	0	\$0.00	0	0	0	5	0	0	0	0	0	\$0.00
Anderson	0	\$0.00	0	0	0	3	0	10	7	0	0	\$0.00
Bamberg	1	\$125.00	0	0	1	32	0	1	1	3	0	\$0.00
Barnwell	1	\$490.00	0	0	1	11	0	4	3	0	0	\$0.00
Beaufort	1	\$000.00	0	0	1	11	0	3	2	1	0	\$0.00
Berkeley	6	\$1,125.00	0	0	6	14	0	5	5	0	0	\$0.00
Calhoun	6	\$1565.00	0	0	6	38	0	2	2	3	0	\$0.00
Charleston	1	\$000.00	0	0	1	13	1	2	2	1	0	\$0.00
Cherokee	0	\$0.00	0	0	0	5	0	2	2	0	0	\$0.00
Chester	0	\$0.00	0	0	0	3	0	3	3	0	0	\$0.00
Chesterfield	4	\$150.00	0	0	4	14	0	0	0	0	0	\$0.00
Clarendon	0	\$0.00	0	0	0	3	1	1	1	3	0	\$0.00
Colleton	6	\$620.00	0	1	7	42	1	19	15	9	0	\$0.00
Darlington	18	\$1,350.00	0	0	18	27	3	2	2	0	0	\$0.00
Dillon	0	\$50.00	0	0	0	5	0	2	2	0	0	\$0.00
Dorchester	0	\$0.00	0	0	0	1	2	6	6	1	0	\$0.00
Edgefield	0	\$0.00	0	0	0	0	0	4	4	0	0	\$0.00
Fairfield	0	\$0.00	0	0	0	5	0	1	1	0	0	\$0.00
Florence	8	\$1,093.00	0	0	8	12	2	13	8	0	0	\$0.00
Georgetown	12	\$2,343.00	0	1	13	30	2	5	5	12	0	
Greenville	3	\$508.00	0	0	3	10	0	2	1	0	0	\$0.00
Greenwood	0	\$0.00	0	0	0	0	0	0	0	0	0	\$0.00
Hampton	0	\$0.00	0	0	0	9	0	1	1	1	0	\$0.00
Horry	7	\$350.00	0	0	7	38	14	6	2	11	0	\$0.00
Jasper	2	\$300.00	0	0	2	14	0	2	2	0	0	\$0.00
Kershaw	10	\$775.00	0	0	10	16	2	6	4	2	0	\$0.00
Lancaster	1	\$125.00	0	0	1	3	0	1	1	0	0	\$0.00
Laurens	0	\$0.00	0	0	0	0	0	0	0	0	0	\$0.00
Lee	3	\$1025.00	0	0	3	3	0	3	3	1	0	\$0.00
Lexington	3	\$696.00	0	0	0	3	0	2	2	0	0	\$0.00
Marion	1	\$125.00	0	0	1	6	1	2	1	1	0	\$0.00
Marlboro	5	\$375.00	0	0	5	12	0	3	3	0	0	\$0.00
McCormick	0	\$0.00	0	0	0	3	0	3	2	0	0	\$0.00
Newberry	1	\$100.00	0	0	1	1	0	0	0	0	0	\$0.00
Oconee	3	\$,331.00	0	0	3	8	2	2	2	0	0	\$0.00
Orangeburg	11	\$1,629.00	0	0	11	65	1	8	8	0	0	\$0.00
Pickens	6	\$462.00	0	0	6	6	0	3	2	0	7	\$3,087.00
Richland	0	\$0.00	0	0	0	2	1	8	6	0	0	\$0.00
Saluda	0	\$0.00	0	0	0	0	0	1	1	0	0	\$0.00
Spartanburg	0	\$0.00	0	0	0	0	0	2	1	0	0	\$0.00
Sumter	4	\$827.00	0	0	4	4	1	3	3	0	0	\$0.00
Union	0	\$0.00	0	0	0	0	0	1	1	0	0	\$0.00
Williamsburg	16	\$1,515.00	0	0	16	77	1	2	2	5	0	\$0.00
York	0	\$0.00	0	0	0	25	0	2	1	0	0	\$0.00
Manchester	0	\$0.00	0	0	0	0	0	0	0	0	49	\$10,827.00
Sandhills	0	\$00.00	0	0	0	0	0	0	0	0	20	\$3,905.00
Totals\	145	\$18,204.00	1	3	149	593	36	170	140	54	76	\$17,819.00

NURSERIES AND TREE IMPROVEMENT

This year the SC Forestry Commission distributed a total of 9,376,000 seedlings to landowners in SC. A total of 69,989,000 seedlings from all sources were planted on 136,515 acres in the state during the year.

The SCFC's goal is to provide quality seedlings to South Carolina landowners to support forest regeneration, promote efficient wood production and multiple use, promote restoration of longleaf pine ecosystem, and provide a wide variety of hardwoods and conifers not commonly available for wildlife, wetlands restoration, Christmas tree growers, and various cost-share programs. The SCFC is the primary provider of longleaf pine and hardwood seedlings in the state while total production is targeted at or below 25%.

At Taylor Nursery four years of drought were ended with ample rain beginning in September 2001. Seedling sales throughout South Carolina continue to decline for the third year in a row down from 104 million in 1999-2000 to 70 million in 2002-2003. A combination of drought, poor seedling survival, pine beetle losses, reduced clear-cuts from thinning CRP plantings and beetle salvage, reduced cost share incentives, and a slow economy are contributors.

Creech Greenhouse in Wedgefield produces containerized seedlings, rooted cuttings and progeny test material. The greenhouse production was 1,200,450 for this fiscal year. The demand for longleaf pine remained high this year primarily to support state forest regeneration. The new production line, benches and irrigation system are in place and allow 1.3 million cell under irrigation. Over-the-winter greenhouse operations can now be suspended without reducing production while reducing production costs.

The old Piedmont Nursery (now an education center), Coastal Nursery (now a seed orchard) and Tilghman Nursery (now Sumter Area Office) facilities continue to house white pine, Virginia pine and hardwood orchards. Spartanburg, Sumter and Walterboro Area Offices plus Taylor Nursery are used as seedling distribution centers. An agreement was signed with NC Forest Service where they will manage the seed orchards at Piedmont Nursery (Piedmont Center) and provide us with 25% of the seed. This will benefit both organizations by keeping these orchards in production.

RESEARCH

The South Carolina Forestry Commission continues cooperative research projects with Clemson University, Auburn University and U.S. Forest Service. The Commission also maintains membership in the North Carolina State University Pine Tree Improvement Cooperative and the Auburn University Southern Forest Nursery Management Cooperative. A Virginia pine Christmas tree research project conducted by the SCFC, SC Christmas Tree Association and NC State University was published in *HortTechnology* and the data is being used to provide a superior Christmas tree mix of Virginia pine to customers.

FOREST TREE SEED COLLECTION PROGRAM

Each year the South Carolina Forestry Commission collects or purchases pine cones and other forest tree seed for seedling production. During the past year, a variety of hardwood and longleaf pine seed were purchased for future seedling production. The SCFC collected 6,000 bushels of longleaf pine from a contractor at Sandhills State Forest, 63 bushels of black walnut from the public. SCFC employees collected 670 bushels of sawtooth oak acorns.

State Nurseries Seedling Production by Species, 2002-2003	
Bareroot Seedlings	
Baldcypress	75,000
Cedar, Eastern Red	97,400
Loblolly Pine, Coastal 2 nd Generation	3,832,000
Loblolly Pine, Coastal 2 nd Generation Rust Resistant	2,000,000
Loblolly Pine, Piedmont 2 nd Generation	2,800,000
Loblolly Pine, Pine 2 nd Generation Rust Resistant	1,000,000
Loblolly Pine, Texas	63,000
Longleaf Pine	3,000,000
Virginia Pine	97,250
White Pine (2 years old)	45,200
Ash, Green	5,570
Buttonbush	2,590
Crabapple, Southern	8,500
Dogwood	10,000
Lespedeza, Attaway	1,000,000
Oak, Cherrybark	47,900
Oak, Gobbler Sawtooth	10,035
Oak, Laurel	5,700
Oak, Sawtooth	50,000
Oak, White	13,500
Oak, Willow	10,601
Persimmon	8,000
Plum, Chickasaw	6,160
Sweetgum	36,100
Sycamore	36,000
Walnut, Black	19,220
Washington Hawthorn	5,000
Yellow Poplar	25,100
Total Bareroot	14,309,825
Containerized Seedlings (Creech Greenhouse)	
Longleaf Pine	1,100,000
Virginia Pine Christmas Tree Mix	7,380
Atlantic White Cedar	33,598
Carolina Sapphire	8,406
Clemson Greenspire	5,490
Leyland Cypress	45,576
Total Containerized	1,200,450
Total Seedlings Produced by SCFC	15,510,276
Total Seedlings Distributed by SCFC	9,373,120

TREE IMPROVEMENT

Niederhof Seed Orchard produced a 1,039 bushels of second generation piedmont loblolly and 532 bushels of second generation coastal loblolly pine cones. Family seedlots are collected, and both a fast growth mix and rust resistant mix of loblolly pine are being grown in 03-04.

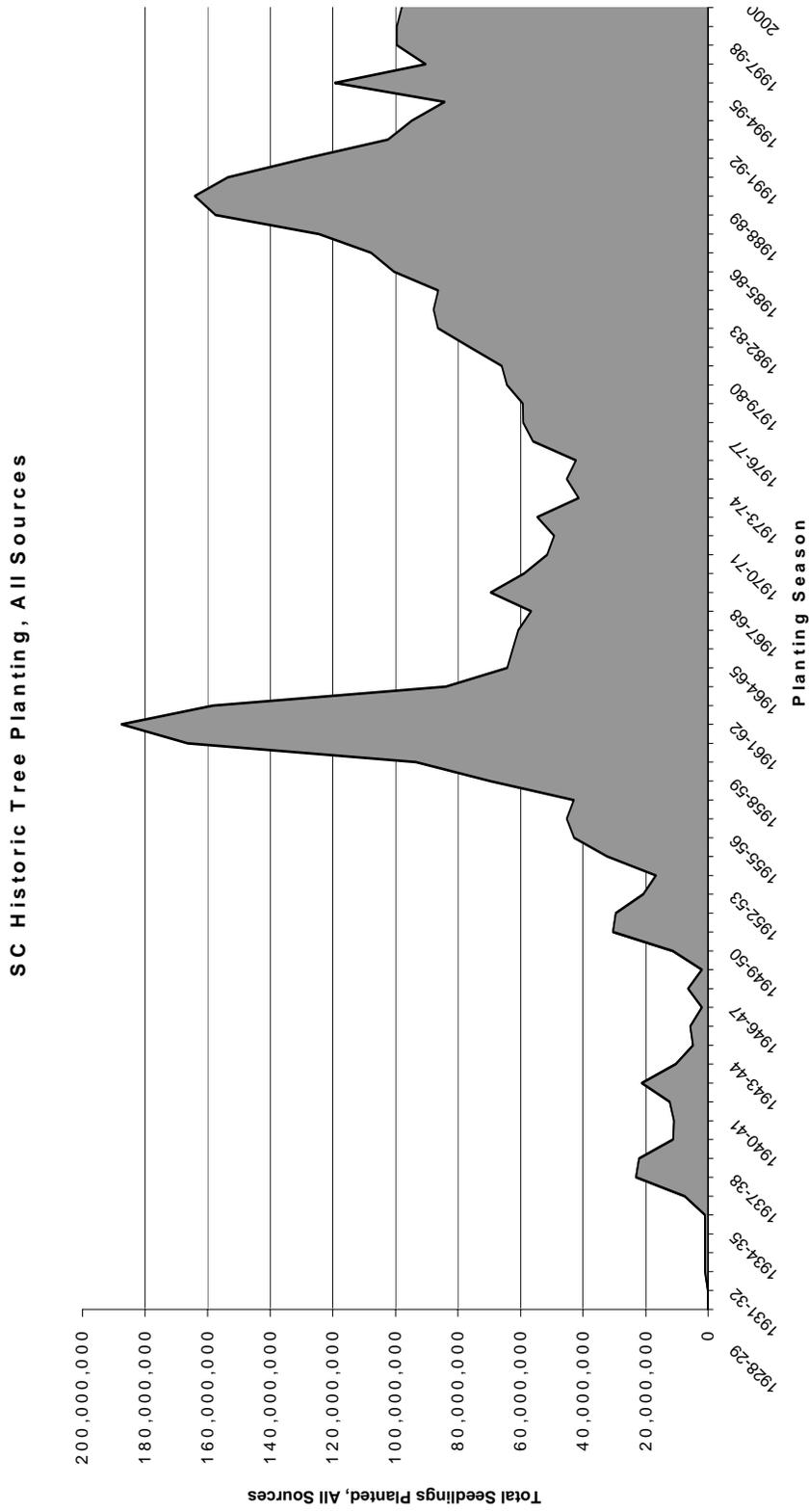
SCFC staff completed our second cycle of breeding and testing. We are continuing to graft new selections into our breeding orchard at Niederhof Seed Orchard. We began grafting scion from families that have demonstrated superior traits for height and growth while exhibiting resistance to fusiform rust. These selections will be planted in our third cycle orchard at Niederhof. We have recently started breeding work to produce fourth generation progeny. Niederhof staff has begun top grafting sublimes onto the tops of orchard trees to enhance new breeding efforts.

Tree Seedling Distribution by Landowner Classification			
	Pine	Hardwood	Total Planted
Non-Industrial Private Forest Landowner	36,181,555	1,080,172	37,261,727
Forest Industry	30,347,950	33,600	30,381,550
Non-forest Industry	601,525	217,150	818,675
Government	1,475,750	51,418	1,527,168
TOTAL	68,606,780	1,382,340	69,989,120

Source of Seedlings Planted in the State	
Nurseries in South Carolina	
Industry Nurseries	53,682,150
South Carolina Forestry Commission	9,373,120
Private Nurseries	370,000
Total	63,425,270
Nurseries Outside of South Carolina	
Industry Nurseries	1,185,550
Private Nurseries	4,925,300
Georgia Forestry Commission	450,000
Total	6,560,850

SCFC Active Seed Orchards		
Orchard Location and Type	Year Established	Acres
Creech Greenhouse		
Genetic Diversity Archives (clone banks)	1977-83	25
Coastal Loblolly Pine 1.0 Rust Resistant	1971	5
Longleaf Pine 1.0	1971	12
Virginia Pine 1.0 (Creech)	1980	1
Virginia Pine 1.0 (Manchester SF)	1986	2
Sawtooth Oak 1.0 Seedling	1990	2
Total		47
Niederhof Seed Orchard		
Coastal Loblolly Pine 2.0	1985-88	204
Piedmont Loblolly Pine 2.0	1985-88	118
Longleaf Pine 1.0	1988-90	30
Loblolly Pine Breeding Orchard 3.0	1997-	10
Longleaf Pine Seedling Seed Orchard	1998	8
Total		370
Coastal Seed Orchard, St George		
Sweetgum 2.0	1992-95	6
Willow Oak Seedling Seed Orchard	1992-95	1
Swamp Chestnut Oak Seedling Seed Orchard	1992-95	1
Green Ash Seedling Seed Orchard	1992-95	3
Red Maple Seedling Seed Orchard	1992-95	1
Southern Red Oak Seedling Seed Orchard	1992-95	2
White Oak Seedling Seed Orchard	1992-95	2
Total		16
Piedmont Center		
White Pine 1.5	1991-93	12
Virginia Pine 1.5	1993	3
Northern Red Oak Seedling Seed Orchard	1993-95	2
Total		17
Grand Total		455

South Carolina Historic Tree Planting, All Seasons



DISPATCH, INFORMATION AND FOREST TECHNOLOGY

Dispatch Technology

An action item under *Protect the Resource* of the Forestry Commission's Strategic Plan is to update dispatch software, equipment and staffing. A Request for Proposals (RFP) for a new and enhanced computer aided dispatch system was prepared and released in FY 2003. Federal funds from the National Fire Plan, Wildland and Urban Interface and other grants will be utilized to fund this upgrade. The RFP is designed to utilize commercial-off-the-shelf dispatch software to replace a mid-1990's custom developed application using software that is no longer supported. It is anticipated that a vendor will be selected and a contract awarded during the 1st half of fiscal year 2004.

The automated yard debris burning notification system was modified so that all non smoke management type vegetative debris burning notifications could be directed to that system as of July 1, 2001. It was estimated that this change would redirect approximately 30,000 calls per year from our dispatch centers to the automated system. This reduction in call volume would allow dispatchers to more efficiently handle smoke management notifications, radio communications, and wildfire calls. The automated system was also modified to handle 24 calls simultaneously which increased its call handling capabilities by 50%.

Financial benefits of this change continued in fiscal year 2003 with an overall reduction in 1-800 phone charges due to the automated system being more efficient and cost effective in handling these types of burning notifications. The Forestry Commission achieved a 40% reduction in 1-800 phone charges in fiscal year 2003 and a 52.2% reduction since implementing this change in 2001.

COMPARISON OF 1-800 CALLS TO AUTOMATED NOTIFICATION SYSTEM AND DISPATCH CENTERS FY 2001, 2002 AND FY 2003

Fiscal Year	1-800 Call Routing	Calls	Percent Change Previous Year	Percent Change From FY 2001	Average Length	Average Cost	Call Charges for Year	Percent Change Previous Year	Percent Change From FY 2001
FY 2001	Automated System	345,061	XX	XX	1.47	\$0.14	\$48,437.58	XX	XX
	Dispatch Center	132,140	XX	XX	2.08	\$0.30	\$39,456.50	XX	XX
	Total	477,201	XX	XX	XX	XX	\$87,894.08	XX	XX
FY 2002	Automated System	419,066	21.4%	21.4%	1.61	\$0.12	\$48,946.42	1.1%	1.1%
	Dispatch Center	116,768	-11.6%	-11.6%	1.83	\$0.18	\$21,080.70	-46.6%	-46.6%
	Total	535,834	12.3%	12.3%	XX	XX	\$70,027.11	-20.3%	-20.3%
FY 2003	Automated System	344,304	-17.8%	-0.2%	1.59	\$0.09	\$32,386.34	-33.8%	-33.1%
	Dispatch Center	70,464	-39.7%	-46.7%	1.69	\$0.14	\$9,658.42	-54.2%	-75.5%
	Total	414,768	-22.6%	-13.1%	XX	XX	\$42,044.75	-40.0%	-52.2%

In June of 2002, the coordination of operations (in addition to technical issues) was realigned and centralized under a Dispatch Coordinator that reports to the Dispatch and Information Technology Coordinator in Columbia. The Dispatch and Information Technology group was further realigned under the Education and Information Technology Division. A major goal in centralizing dispatch operations is to standardize the operations of all three dispatch centers. A review of the 3 Region Dispatch Centers conducted during February and March, 2001 identified areas where statewide consistency in various procedures was needed.

Information and Forest Technology

The Information Systems group was realigned under the Dispatch and Forest Technology Coordinator in February, 2002. The Information Systems group is responsible directly and indirectly for the maintenance and support of the agency's wide area network, 10 Windows NT Servers, over 200 computer users, software applications and implementation of various initiative to support agency operations and programs.

An analysis of 283 computers, laptops and servers listed under the agency's Fixed Asset records was conducted to develop a replacement plan and estimated cost to implement. Due to budgetary limitations, it was determined a 5 year (i.e. 20%) replacement schedule for most computers and servers should be implemented at an annual cost of \$200,000. Equipment used for mission critical or intensive applications (i.e. computer aided dispatch, geographical information systems, etc.) may need to be replace on a 3 year or less cycle or leased under this plan.

The Chief Security Officer with the State CIO Office conducted a preliminary review of the agency's computer and network security. Based on his recommendations, a computer consulting firm was contracted to perform a more intensive security analysis and recommendations. A number of those recommendations have been implemented including the installation of a new firewall, three layers of virus detection, upgrading computers to a more secure operating system, and various configuration changes. Additional recommendations will be implemented as time and funding permits.

The Commission was a major cooperater in the 1999 National Aerial Photography Program, which acquired 1:40,000 color infrared aerial photography of South Carolina during January and February of 1999 and 2000. The Commission worked with the Department of Natural Resources, US Corps of Engineers and other agencies to have this photography converted into Digital Orthophoto Quarter Quads (DOQQs) so various computer applications and geographical information systems can more easily utilize this aerial photography. Delivery of the 1999 DOQQs for South Carolina began in August, 2001 and was completed in October, 2002. The Forest Technology Coordinator packaged and duplicated the 1999 DOQQs on to CD-ROMs by county for distribution to field personnel. This digitized aerial photography will also be utilized in the computer aided dispatch system and fire management activities to help assess fire potential and damage.

OFFICE OF THE STATE FORESTER

South Carolina Forestry Commission Financial Statement			
Fiscal Year 2002 - 2003			
<u>REVENUES</u>			
State Appropriations		16,190,446	
Federal Grants		3,572,374	
Earmarked Funds			
Hunting & Fishing License		600	
Refund of Prior Year Expenditure		195,661	
Burning Assistance Fee		124,841	
Fire Lane Fee		124,493	
Timber Marking Fee		11,201	
Training Conf - Registr Fee		2,805	
User Fee - State Park & Forest		67,109	
Miscellaneous Fee - Field Trial		35,163	
Construction of Water Bar		3,620	
Stand By for Prescribed Burning		3,038	
Sale of Seedlings		769,219	
Sale of Timber		1,438,754	
Rent - Residence		35,607	
Rent - Farm Land		63,808	
Rent - State Owned Property		19,875	
Rent - Equipment		7,304	
Contributions & Donations		1,019	
Insurance Claims		7,757	
Sale of Services		19,124	
Sale of Publications		45	
Sale of Materials & Supplies		1,341	
Sale of Recycling Material		1,138	
Commission-Vending Machines		294	
Forest Product Assessment		960,387	
Sale of Assets		680,796	
Total Earmarked		\$4,575,000	
Total Revenue		\$24,337,820	
<u>EXPENDITURES</u>			
State		16,171,485	
Federal		3,271,241	
Earmarked		3,611,276	
Permanent Improvements		617,250	
Total Expenditures		\$23,671,252	
<u>EXCESS OF REVENUE O/(U) EXPENDITURES</u>		\$666,568	

INTERNAL AUDIT

The Internal Audit Department is an independent appraisal function that examines and evaluates the adequacy and effectiveness of Commission activities as a service to all levels of Management and the Commissioners. Emphasis is on auditing the agency's activities, processes, systems, and operations to ascertain efficiency in quality services.

The following audits were performed this fiscal year: the audit of the Calculation of Hourly Rates and the audit of Shop Operations. Audit Report 2001-04 South Carolina Forestry Commission Travel was followed up on in the course of the audit of Shop Operations. Certification reviews were performed at Taylor Nursery, Niederhof Seed Orchard, and Sand Hills State Forest in accordance with State Fleet Management's guidelines. Reviews were performed internally, as these shops are no longer in State Fleet Management's rotational pool to be examined. Equipment custodians were responsible for verifying their own fixed assets this fiscal year with the knowledge that spot checks would be performed by Internal Audit. Internal Audit verified 10% of the agency's custodians' inventories.

Other activities include: a review of the Voluntary Retirement Incentive Plan, physical inventories of shop supplies in all relevant locations, and assistance with Wood Magic at Harbison State Forest.

The Internal Audit Department was also aware and involved where applicable in reviews performed by external sources. In addition, memorandums were prepared and submitted to Management noting various issues that warranted attention.

The Internal Auditor has obtained adequate training to maintain compliance with the continuing education requirements of the Government Auditing Standards.

During Fiscal Year 2002-2003, the Internal Auditor was elected to the Board of Directors for the South Carolina State Internal Auditors Association where she serves as Training Chairperson.

RECORDS MANAGEMENT

The Internal Audit Department oversees the Records Management System for the Commission. The Internal Auditor serves as Records Officer. We have Record Liaison Officers selected based on the organizational structure of the Commission. The Records Officer is responsible for training the Record Liaison Officers. Such training is performed periodically to ensure consistency and continuity. In addition, the Record Liaison Officers are kept abreast of other training opportunities available.

During Fiscal Year 2002-2003, a total of 75 cubic feet of official records were destroyed in accordance with the retention schedules approved by the South Carolina Department of Archives and History. This total does not include the destruction of copies. In addition, a minimal amount of records were transferred to the South Carolina Department of Archives and History for possible retention.

ECONOMIC AND RURAL DEVELOPMENT

Forest and wood product business development and recruiting as well as rural development assistance is a component of the Forestry Commission's mission. The goal is to maximize the benefits to the state from the forest resource base.

BUSINESS DEVELOPMENT

6 new wood products businesses announced with investment of \$1.82 million and creation of 84 new jobs.

35 business recruiting contacts were maintained, with 2 contacts added this year.

44 business assists or requests for information were provided.

Conducted workshops for implementing new phytosanitary regulations for wood pallets used in International Trade.

Business promotion activities included a South Carolina exhibit at the International Woodworking Fair in Atlanta, Ga.

Served on South Carolina District Export Council and participated in Midlands International Trade Association meetings.

RURAL DEVELOPMENT

Continue to represent the Forestry Commission on SC Rural Development Council. Administer a program in conjunction with USDA Forest Service to assist communities in reducing hazardous fuels by creating markets for small diameter trees.

INFORMATION OFFICER

The Information Officer is charged with generating news media coverage of SCFC activities and responding to inquiries from the news media. During the year, the Information Officer wrote and distributed 80 press releases. Some releases were for statewide distribution; others covered specific local events and were released only to the appropriate local media.

The Information Officer provided 225 interviews to the news media. These were distributed as follows:

Television stations:	91
Daily newspapers:	74
Radio stations:	20
Weekly newspapers:	31
Wire services:	3
Other:	6

The Information Officer arranged 36 media interviews with other SCFC personnel and made 8 media referrals to outside agencies. Field personnel and Columbia specialists provided many additional interviews to the media.

In addition, the Information Officer provided several interviews to national news media, including one feature segment for CBS' 60 Minutes II.

Newspaper exposures pertaining to SCFC activities were tracked by means of a clipping service. From clippings returned by the service, the following information was determined:

Number of articles mentioning SCFC:	805
Number of articles originating from SCFC releases:	339
Number of articles directly quoting SCFC personnel:	243
Number of SCFC personnel quoted:	52

TRAINING AND SAFETY

During fiscal year 2002-2003, the Training and Safety section continued to work to provide a well-trained and safe workforce. The Training portion of this section is charged with providing the training needed by SCFC employees to carry out their duties in a safe, efficient, and effective manner. There were 125 training sessions with 1639 employees attending during fiscal year 2002-2003 (some employees attended multiple sessions). These sessions are listed by major subject area below.

Category	Number of Sessions	Number of Employees Attending
Fire Management	29	481
Forest Management	17	231
Equipment Maintenance	3	60
Safety	56	687
Law Enforcement	9	149
Personnel Management	5	22
Administration	6	9
Total	125	1639

The Training section is also responsible for coordinating the agency's fire management and Certified Prescribed Fire Manager training for non SCFC personnel. During the fiscal year, 29 fire management training sessions with 520 people attending and 2 Certified Prescribed Fire Manager training sessions with 34 people attending were held.

Other major accomplishments included: maintaining an active and working Training Council, developing and implementing a forklift training program, and developing 3 SCFC Employee Training Guides. These training guides give both the supervisor and the employee a checklist of minimum required training, a time frame in which to complete the training, and the level of knowledge required by subject area.

The Safety portion of the section is responsible for insuring that all SCFC employees work in a safe environment, in a safe manner, and comply with safety regulations. During fiscal year 2002-2003, 7 safety inspections were made at SCFC facilities by the SCFC Safety Coordinator. Safety violations were noted and corrected.

During fiscal year 2002-2003, there were 15 personal injuries (many minor in nature) to SCFC personnel while on duty.

The SCFC Physical Fitness Program was implemented in September 2001. The Training and Safety section is charged with administering the program. Participation in the program is required for all fireline employees and for those that volunteer to assist with fireline duties. During the fiscal year, 261 employees participated in the program. The program was in its second year where the goal was to walk 2 miles in 30 minutes.

INFORMATION AND EDUCATION

The Information and Education department includes Creative Services, Environmental Education, Harbison State Forest, Piedmont Forestry Center and Poe Creek State Forest.

CREATIVE SERVICES

Creative Services provides audio-visual and print materials for use by schools, Forestry Commission personnel and the public for both educational and training purposes. The department is the agency's contact for outreach activities related to state forests, forest landowner assistance, and fire prevention. Creative Services is responsible for keeping lines of communication open with Forestry Commission internal and external audiences. Currently the department accomplishes this using a weekly electronic news bulletin and a frequently updated website.

Internet Website

The Forestry Commission's website at <http://www.state.sc.us/forest> has been expanded and updated, since we went online in 1997, to include comprehensive forestry information and information about the Commission's services.

Categories for search include Fire/Outdoor Burning, Forest Recreation, Forest Management, Forest Products, SCFC Facts and Facilities, Environmental Education, Seedling Sales, Reference Resources, and a Bulletin Board. Entire publications are available online, such as the Best Management Practices (BMP) Guidelines for Forestry Practices in SC and its supplement on braided streams, SC Smoke Management Guidelines, and the Forest Fire Law Handbook.

The website is a research tool for students of forestry. It is a reference for users of our services, with complete lists of county forestry personnel, outdoor burning information and relevant phone numbers, grant application information, seedling and services prices, current seedling inventory, ordering information and forms, location and trail maps for the state forests, and trail user permit applications. It is a continually updated source for fire weather, current news and training events. And it provides convenient links to related online resources. During fiscal 2002-2003 the site was visited 645,876 times.

Projects Completed in FY 2002-2003

Web

Created a Governor's Council Southern Pine Beetle webpage with lists of loggers to contact for salvage.
Created a screensaver using new FIA data – made it available online.

Recreation Advisory Council

The SC State Forests Recreation Advisory Council was formed by the State Forester in May, 2001 to draft statewide guidelines for recreational use of the state forests. Monthly meetings were chaired and facilitated by Information & Education. The department wrote drafts for approval by the Council and composed the final report, which was completed in January, 2003. Recreation guidelines were included in the State Forests Long Range Plan. As its final task, the Council formed local working groups to implement the guidelines on each state forest. The Council will continue to meet once a year or on an as-needed basis.

In February 2003 meetings were held at Manchester, Sand Hills and Harbison State Forests to present and explain the new recreation guidelines to local audiences.

National Fire Plan

The Department works as part of a unified command with Fire Management and the Wildland- Urban Interface (WUI) Field Coordinator to administer the Forestry Commission's National Fire Plan grant from the USDA Forest Service.

To implement education commitments of the Hazard Mitigation portions of the grant, the Creative Services department: accomplished the following.

Public information

- Produced two eight-week statewide radio campaigns
- Contracted original music composition and recording for use on radio, television and DVD production
- Produced 3 tabletop Firewise exhibits and Firewise banners
- Served on a 3-state team to write and design a four-color newspaper insert entitled *Living with Fire* for the entire southern region
- Produced a South Carolina version of *Living with Fire*;
- Composed, designed and mailed postcards to residents of Aiken, Myrtle Beach and Paris Mountain, SC, immediately following WUI fires, describing the fire and giving information about how to protect homes from future wildfires

Produced a Firewise checklist card for homeowners

Produced five different Firewise Powerpoint presentations for use by the State Forester and the WUI Coordinator

Workshops

Held a statewide Firewise Workshop on October 15, 2002, to introduce the Firewise program to interested publics and to train Forestry Commission personnel in how to conduct a workshop.

Planned and facilitated a Firewise Workshop for the city of Aiken, February 22, 2003

Planned and conducted a Firewise evening information session for Paris Mountain homeowners following the Paris Mountain fire

Planned and conducted a Firewise Workshop for Paris Mountain community planners, May 1, 2003

Training

Attended Firewise facilitator training in Tallahassee, Florida

Planned and conducted training for foresters and project supervisors in use of a laptop, digital camera, GPS unit and CADS databases in preparing community Firewise plans.

Created CDs containing information used in training as well as template for community plans.

Publications

Smoke Management Guidelines revision.

Presentations

Prescribed Fire Powerpoint presentation for landowners association meetings

State Forester: Powerpoint presentations for the Timber Producers Association and the National Wildfire Coordinating Group (NWCG)

Video Programs

It Can Happen Here (22 minute video concerning fire at Paris Mountain)

Created DVD of *Your Home in the Line of Fire*

Video footage of Southern Pine Beetle damage for SC Governor's Council and CBS network program.

Environmental Education

It is the responsibility of the Environmental Education Coordinator's position to plan, develop, support, and coordinate the Forestry Commission's environmental education effort. The Coordinator oversees the development of Harbison State Forest's Environmental Education Center and serves as State Coordinator of Project Learning Tree (PLT) which is an international environmental education program designed for students in pre-kindergarten through high school. The S.C. PLT Coordinator is also the elected coordinator representative on the National PLT Education Operation Committee, serving to represent all the PLT Coordinators throughout the world. This position is a 4-year elected term.

Last fiscal year (July '02 to June '03) SC PLT conducted 21 educator workshops throughout the state to train 421 teachers. In addition, PLT participated in 7 exhibits and/or presentations at various functions across the state to reach approximately 1955 participants.

The Coordinator also represents the Commission on the Coalition for Natural Resource Education, the Environmental Education Committee of the Governors' Interagency Council on Natural Resources, and various other committees involved with environmental education throughout the state.

The Assistant Environmental Education Coordinator was instrumental in assisting the training and conducting of this year's Envirothon competition. The Envirothon is a program for high school students to learn more about our natural environment. The Envirothon tests the student's knowledge on topics such as soils, water resources, forestry, wildlife, and current environmental issues. The Assistant Coordinator established contacts and training throughout the state,

teaming our Commission employees and high school teams in their areas, along with conducting a training session for the teachers and coordinating the forestry part of the competition and test.

The Assistant Coordinator also coordinated the Wood Magic Forest Fair. This event was held at Harbison State Forest in Columbia, Sewee Visitor's Center in Charleston County and the S.C. Botanical Gardens at Clemson University. The program involved approximately 2891 students, teachers and adult chaperones. Two hundred eighty-eight applications were received to attend the Wood Magic Forest Fair program this year. However, the program could only accommodate 111 classes at the three sites. Demand continues to exceed the capacity of this popular education program.

The Forestry Commission was also a key partner in the SC Teachers' Tour Coalition, an association of forest industry representatives, state and federal agencies. This coalition conducted the SC Teachers' Tour in the Pee Dee area in June of this year. This successful tour provided 29 teachers with a first-hand experience of the forest industry and forest management. These educators received training, resources and information to conduct lessons in sustainable forestry for their students. The participants received 3-hours of non-degree graduate credit for their efforts. The Environmental Education Coordinator serves as an adjunct professor for the University of Charleston in order to obtain this credit for the educators.

Using the Title III Proposal under the Rural Schools and Community Self-Determination Act of 2000, a partnership has been developed between the Education & Information Technology Division of the Commission and the Clemson Cooperative Extension Service to use the Piedmont Forestry Center in Oconee County to conduct natural resource based environmental education classes for schools in the Oconee County area. Last year 5 programs were conducted for 106 students and teachers from Oconee County schools at the Piedmont Forestry Center. This was the first year for this program and it is expected to expand greatly in the upcoming years.

The Forestry Commission continues to be a strong supporter of the Coalition for Natural Resources' environmental education efforts throughout the state. Foresters are trained to help conduct Teaching KATE (Kids About The Environment) environmental education lessons in forestry at Camp Long in Aiken County and at Camp Cooper in Clarendon County.

Harbison Environmental Education Forest

Harbison Environmental Education Forest, located within the city limits of Columbia, contains 2,176 acres. This tract is being managed as a public greenspace to emphasize environmental and forestry education, demonstrate forest management practices, and serve as a forest recreational area. The forest is open seven days a week, with estimated annual attendance of 75,000 – 80,000.

Harbison's education staff and other SCFC employees associated with Harbison conducted 56 programs this past year, serving approximately 3,751 participants. Forty-four programs were conducted at Harbison, with 2,308 participants and 12 programs were conducted outside of Harbison by the staff, serving approximately 1,443 participants.

Harbison continues to offer support to the Scouting community. Fifteen scouting programs were held for both Cub Scouts and Girl Scouts last year. Approximately 158 scouts and their leaders participated in these programs. Harbison also conducted one Boy Scout Forestry Merit Badge Program where approximately 60 scouts earned their Forestry Merit Badge. Scouts and other organized groups continue to use the facilities at Harbison for camping and other activities. Fifty-nine groups used the camping facilities with a total of 1,189 campers.

Volunteers helped with the workload at Harbison once again. Prospective Eagle Scouts completed 3 projects during the 2002-2003 fiscal year to fulfill their requirements. These scouts built and installed 2 bridges on the trail system

at Harbison State Forest and installed material on 9 existing bridges to improve visitor safety. Cub Scouts again helped maintain 10 waterbars on the Eagle Trail. In addition, 35 volunteers carried out a variety of projects on 4 work days organized by the Forest Director.

A Trails Working Group was formed this year, with the first meeting occurring in March 2003. This group is composed of representatives of the user groups with an interest in activities at Harbison – hikers, bikers, walkers, hunters, and neighbors. The Harbison Trails Working Group is in the process of organizing a Friends of the Forest group to help solicit donations and promote the use of the Forest.

The Harbison Environmental Education Center is a 5,000 square foot log building containing three offices, a small conference room, a screened porch, a large deck and a 100-seat conference room. The conference rooms at the Center are offered free to groups or agencies conducting environmental education workshops or classes. In the large conference room, thirty-three environmental education related meetings with 1,877 participants were held free of charge last fiscal year. SCFC conducted 47 meetings and training for 3,290 participants using the Education Center at no charge. Seventy-three other groups or agencies used the facilities for a fee. The large conference room was used a total of 153 times with 6,682 participants. This generated an income of \$14,000.00*.

Harbison State Forest contains over 24 miles of roads and trails for bicycling, hiking, jogging and nature study. A permit system for recreational users requires bikers to pay a user's fee and promotes donations from other users. Harbison sold 953 bike permits for an income of \$14,919.00* and received \$809.95* in donations. Four special use permits were also issued for biking events on Harbison, which generated revenue of \$800.00*. Both school groups and visitors who may rent the facilities used the Gazebo and Eagle Shelter frequently. Seventy-one groups used these facilities this fiscal year. Among those were 40 paying groups, which generated an income of \$1,925.00* and 31 educational and other groups that were not charged a fee.

The Middle Creek landing provides access to the Broad River for canoes and kayaks. Seventy-eight float plans were filed during 2002 – 2003 with the Education Center for approximately 266 participants.

Forest Management Activity

Four timber sales were conducted in 2002-2003, all four of which were negotiated sales associated with a severe southern pine beetle outbreak on the Forest. These sales removed 2,380 cords of pine pulpwood; 2,753 cords of chip-n-saw; and 1,743 Mbf of sawtimber for a total of \$425,453.62*.

*Note: Twenty-five percent of all revenue generated on Harbison State Forest is paid to Richland County for local school district use.

South Carolina Forestry Commission Organizational Chart

