

South Carolina Forestry Commission

Annual Report 2004 - 2005

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State Commission of Forestry

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William Boykin, Deputy State Forester

Larry Moody, Director of Legislative and Administrative Services

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.

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 13,657,033 acres of forestland in South Carolina from wildfire. 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 and Sumter National Forests, National Park lands, and lands owned by US Fish and Wildlife Service.

Wildfire Summary

Agency firefighters recorded 2,283 wildfires that burned a total of 13,478 acres of forestland and grassland during the fiscal year.

Construction debris burning (Avalon community) and an escape from a debris burn barrel in Horry County within the Carolina Forest community created smoke problems for weeks as residual smoke from the burns had citizens concerned about their health and safety. This is a forewarning as to what is to come as the urban population moves into the interface.

Wildfires destroyed 17 homes and damaged six others. In addition, five other buildings were destroyed and three vehicles were damaged.

Fire Protection Cooperatives

The Forestry Commission has cooperative arrangements with 11 fire and emergency management entities. Activities for each cooperative during FY 2004-05 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 participated in several EMD emergency response training sessions and redeveloped the Logistical Staging Area (LSA) SOP as a result of the training exercise held in June 2004.

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 support were made this year.

Volunteer Fire Assistance Program: The following grants were awarded:

Title II Grants for structural and wildland firefighting needs: 38 fire departments were allocated \$73,160.

National Fire Plan Grants for wildland firefighting needs: 98 fire departments were allocated \$108,225.

Federal Excess Property Program: Acquired 7,422 items with acquisition value of \$ 2.39 million. One hundred seventy three (173) pieces of “inventoried” federal excess equipment with an acquisition value of \$2.02 million were loaned to fire departments during the year. At present, 1,743 pieces of equipment with acquisition value of \$27.45 million are assigned to 466 fire departments statewide. Additionally, since 1987, non-inventoried durable and consumable property valued at \$3.95 million have been issued to fire departments for use in support of firefighting and rescue operations.

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 and Sumter National Forests during the fire season, and SCFC investigators assisted with wildfire investigation.

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.

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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 National 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, USDI 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 is 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 2005*

Month	Precipitation
July 2004	8.55
August	4.66
September	3.19
October	3.52
November	1.7
December	2.57
January 2005	2.05
February	3.98
March	5.1
April	2.93
May	3.98
June	7.12
Total	49.35

*Source – National Climatic Data Center

Precipitation Last 5 Years*

Fiscal Year	Precipitation Inches	Departure from Normal**
2000-01	40.56	-7.71
2001-02	34.07	-14.20
2002-03	61.18	+12.91
2003-04	42.90	-5.99
2004-05	49.35	+.33

*Source – National Climatic Data Center

**statewide normal, based on previous 30 years is 49.02 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 2005 are as follows:

Region	Coastal	Pee Dee	Piedmont
Readiness 1 (No wildfire danger)	12 days	9 days	0 days
Readiness 2 (Low wildfire danger)	302 days	289 days	270 days
Readiness 3 (Moderate wildfire danger)	43 days	59 days	85 days
Readiness 4 (High wildfire danger)	8 days	8 days	10 days
Readiness 5 (Extreme wildfire danger)	0 days	0 days	0 days

Burning Ban and Red Flag Fire Alert: There were no declared Burning Bans and only three Red Flag Fire Alerts during the year. These included:

- December 19-20: a Red Flag in 34 counties due to high wind and low humidity
- January 22-25: a Red Flag in 27 counties due to high wind and low humidity
- March 11-14: a statewide Red Flag due to high wind and dry surface fuels

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: Forestry Commission pilots equipped with Federal Excess aircraft provide incident reconnaissance (suppression assistance) as well as wildfire detection service. The SCFC has 10 aircraft with 3 full time pilots and on average 10 temporary pilots which fly on as needed basis. Specially trained private aerial contractors provide basic wildfire detection services..

During the year, SCFC pilots flew a total of 1,689 hours (Coastal--599 hours, Pee Dee--397 hours, Piedmont--693 hours); contractors flew fire detection a total of 1,612 hours.

Prescribed Fire

Certified Prescribed Fire Manager Program: Three Certified Prescribed Fire Manager Programs were conducted during the year with 82 participants. Participation in this program strengthened over the past year due to increasing statewide interest in prescribed burning. This course focuses on planning prescribed burns to comply with mandated air quality standards.

Prescribed Burning for Forestry, Wildlife, and Agriculture FY05 (Smoke Management Guidelines)

Region	Forest Understory		Forestry Site Prep.		Wildlife		Agriculture	
	Number	Acres	Number	Acres	Number	Acres	Number	Acres
Coastal	2,428	212,245	2,295	8,604	660	72,088	2,896	45,751
Pee Dee	1,193	51,551	942	4,688	337	20,538	2,458	49,956
Piedmont	445	46,432	1,949	8,747	123	5,004	622	5,525
Totals	4,066	310,228	5,186	22,039	1,120	97,630	5,976	101,232

Total Forestry, Wildlife & Agriculture Burns: 16,348 for 531,129 acres.

Fire Prevention Information

Wildland-Urban Interface (WUI): Work continued on assessing wildland-urban interface communities and their wildfire risks. Two additional communities were assessed and 26 community wildfire protection plans developed to the draft stage. One plan was delivered to homeowners of Calhoun Forest in Pickens County where a ‘*How to Have a Firewise Home*’ workshop was conducted. Four other ‘*How to Have a Firewise Home*’ workshops were conducted : Savannah Lakes in McCormick County, Rock Point in Pickens County , Carolina Forest in Horry County and one for the Georgetown Citizen Emergency Response Team. An additional six Firewise workshops specifically designed for community leaders in South Carolina known as ‘*Living on the Edge in South Carolina*’, were conducted in the Camden/Lugoff/Elgin area of Kershaw County, Savannah Lakes in McCormick County, North Charleston area of Charleston and Berkeley Counties, Awendaw area of Upper Charleston County, Pawley’s Island of Georgetown County and one in Lexington County. Total attendance for these 11 workshops was just under 600.

Other projects to get the word out about WUI and Firewise principles included presentations at the National WUI conference in Denver, the SC Prescribed Fire Council annual meeting, the Sumter County Forest Landowners Assoc., and the Clemson extension agent conference; exhibits were presented at the joint meeting

of the SC Chapter of the American Planning Assoc and the SC Urban and Community Forestry Council, the SC Nursery and Landscaping Assoc. and at the SC Firemen’s Convention. A flammable plant list on cardstock was also developed and delivered to homeowners at the workshops mentioned earlier.

Three Wildfire Prevention Teams (one in each Region) were implemented in historically high fire occurrence areas. The goal of the teams was to reduce the number of wildfires caused by escaped debris burns. Teams were located in Columbia to address the lower Lexington County area, Moncks Corner to address the fires around the Francis Marion NF, and the third team was located in Kingstree to address those wildfires in the southern part of Williamsburg county (some over the line into Georgetown County). The slogan “Think Before You Burn” was devised and printed on brochures, posters, and table tents. These items were distributed to local businesses, schools, and delivered by hand to various community leaders throughout the targeted areas.

Fires By Cause

Cause	Number	Acres Burned	Average Acres per Fire	Percent of Total Number FY 05
Lightning	40	322.4	8.06	1.75
Campfire	12	50.1	4.2	0.53
Smoking	62	394.7	6.4	2.72
Debris Burning	1,062	5,206.2	4.9	46.52
Incendiary	549	4,784.3	8.7	24.05
Equipment	156	904.2	5.8	6.83
Railroad	17	54.3	3.2	0.74
Children	156	502.9	3.2	6.83
Miscellaneous	229	1,259.0	5.5	10.03
TOTALS	2,283	13,478.1	5.9	100.00

Five-Year Summary: All Fires

Fiscal Yr.	Acres Protected	# Fires	Acres Burned	Avg. Acres/Fire	% Area Burned
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
2003-04	13,657,033	3,409	21,394.3	6.3	0.16
2004-05	13,657,033	2,283	13,478.1	5.9	0.10
Five Year Averages		3,823	24,672.0	6.4	0.18

**Acres Protected and Total Burning Notifications by County,
Fiscal Year 2005**

County	Acres Protected	Smoke Mgt. Notifications	Other Notifications
Abbeville	248,551	119	2,818
Aiken	524,743	791	14,452
Allendale	199,005	445	635
Anderson	216,023	228	12,756
Bamberg	202,862	452	1,616
Barnwell	266,959	554	3,226
Beaufort	130,448	306	8,486
Berkeley	595,291	839	17,270
Calhoun	151,294	314	3,228
Charleston	318,526	332	7,940
Cherokee	168,077	146	4,011
Chester	315,565	151	2,974
Chesterfield	416,239	385	6,894
Clarendon	238,952	405	5,511
Colleton	560,896	1125	13,231
Darlington	176,333	198	7,124
Dillon	163,935	241	3,467
Dorchester	272,524	379	11,236
Edgefield	279,433	205	2,412
Fairfield	408,433	147	2,396
Florence	308,707	444	12,505
Georgetown	400,136	569	11,029
Greenville	296,082	146	14,357
Greenwood	205,593	114	3,197
Hampton	303,663	882	3,719
Horry	493,012	552	21,673
Jasper	341,036	585	3,446
Kershaw	376,376	289	15,384
Lancaster	291,845	132	4,567
Laurens	337,499	138	4,931
Lee	121,735	222	1,514
Lexington	256,939	373	39,818
Marion	226,896	176	7,862
Marlboro	226,676	124	4,949
McCormick	223,394	107	999
Newberry	334,566	134	3,177
Oconee	292,590	128	11,883
Orangeburg	446,887	1280	11,090
Pickens	236,029	141	9,534
Richland	352,904	212	8,324
Saluda	196,376	155	1,726
Spartanburg	286,496	251	7,945
Sumter	268,338	311	12,122
Union	277,640	66	504
Williamsburg	407,761	886	6,170
York	293,768	180	11,359
Total	13,657,033	16,359	365,467

Total Smoke Mgt. & Other Notifications 381,826

Total All Land Fires by County & Month - Fiscal 2005

	2004												2005												Total No.	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	1	0.5										4	14.1	9	23.6	7	3.2	2	3	5	9.7	1	2	29	56.1		
Aiken	9	31.3	7	14.4	2	12	3	6.2	4	10	11	30.4	13	58.4	11	88.1	28	165.2	19	82.3	9	19.1	2	2.1	118	519.5	
Allendale									2	3.5	2	2	10	11.7	4	11	4	11	16					2	0.3	18	54.5
Anderson	1	0.1					2	0.2					6	22.5	7	32.7	6	55.2	3	10.5			1	0.1	26	121.3	
Bamberg	2	1.1			1	0.1					2	26	4	1.4	5	30.5	6	75	7	18.2					27	152.3	
Barnwell									1	4	3	6.2	4	21	5	12.1	21	203.3	2	9	1	4.2			21	93.8	
Beaufort									1	0.3	13	56.6	22	73.8	17	73.4	48	375.4	28	257.3	5	35.1	4	27	152	930.6	
Berkeley	7	10.1	5	17.6	1	3	1	1	1	1	5	3.6	8	20.1	9	22	10	101.1	6	40.6	4	4.4			45	203.3	
Calhoun	1	10.4			1	0.1			1	0.1	4	12.1	6	7.8	10	33.1	6	81.5	8	14.7	3	0.3	2	1.1	41	150.8	
Charleston									1	0.8	3	7.5	2	2.325	1	2.5	5	20	6	39.8	1	1			20	75.925	
Cherokee	1	2											4	12.6	1	2	5	6.5	4	19.1	1	0.1			19	46.8	
Chester	3	6											10	39	11	38.9	31	131.35	12	110.4	6	55.5	2	15	81	449.05	
Chesterfield	3	50.3	2	3	1	0.1			2	0.2	9	15.1	22	98.7	10	9.8	30	110.5	16	166.6	4	6	3	16.5	101	435.6	
Clarendon			4	12.1	1	0.1																					
Colleton	3	1.3							1	1	12	65.6	23	169.9	18	80.1	39	346.1	19	110.8	6	51.1	5	15	128	843	
Darlington	1	0.1	2	0.6					1	0.1	4	23.3	5	15.5	12	30.1	20	64	12	34.5	2	1.5			59	169.7	
Dillon	2	1.5	1	10					2	6	3	2.7	2	7.2	4	47.6	10	142.7	7	136.8			1	10	33	364.7	
Dorchester	1	0.1							1	0.1	7	44.1	6	30.1	8	89.3	5	285	12	41.8	1	0.1			42	491.1	
Edgefield	2	5.1	1	5					1	0.5	3	1.3	7	26.1	1	5	2	18	3	11.2	3	22.1			12	49.1	
Fairfield	4	24.8	1	0.3	2	0.4			1	0.2	3	34	13	32.3	15	75.9	31	110.3	25	178.5	3	11.2	2	40	100	496.7	
Florence	4	9.4	3	5					1	0.1	3	34	13	32.3	15	75.9	31	110.3	25	178.5	3	11.2	2	40	100	496.7	
Georgetown	1	2							1	2	5	5	3	1.7	9	445.85	21	170.7	17	134	9	45.4			66	806.65	
Greenville									4	8	4	8	4	6.5	3	3	9	80.6	3	9					23	107.1	
Greenville	2	2.1	1	0.1																					6	14.2	
Hannington	2	7	1	1																					34	106.8	
Horry	2	7	1	1																					97	898.5	
Jasper	4	36	1	0.1					1	1	1	4	16	235.5	7	46	25	385.7	10	16.3	1	0.5			66	725.1	
Kershaw	5	7.6	2	1.1	2	0.3			1	1	4	23.1	3	9.6	6	25.1	26	103.15	10	108.5	3	24.5	2	33	64	336.95	
Lancaster	1	5							1	3	4	9	4	9	1	0.5	3	25.1	3	3.25	2	4.5			15	50.35	
Laurens	2	5							1	0.2	1	0.5	3	26	3	5	8	56.3	4	8.5	2	2.5	1	0.2	27	108.7	
Lee									2	13	4	12	2	6	6	6	17.5	5	17	2	3	1	1	23	70.5		
Lexington	1	0.2	6	7.7	1	0.3			4	3.1	10	23.6	13	22.5	5	6	18	257.25	14	30.6	9	21.15	2	0.9	84	376.3	
Marion	2	4.75											2	3	1	0.1	2	1.2	4	12.5					13	51.65	
Marlboro	4	6.2											3	7	11	29.9	15	98.65	7	111.3	3	53.25	1	10	49	322.4	
McCormick	1	0.2	1	0.1					1	0.2	1	1	1	1	1	1	3	6.3	1	0.1	2	0.6			11	9.5	
Newberry													1	0.5	2	1	2	1.6	2	2					6	4.3	
Oconee													1	0.5	3	3	11.5	12	100.5	5	12.6	4	12.5		26	142.1	
Orangeburg	8	32.1	5	16.2	3	3.2	2	0.3	2	8	14	63.3	41	224.9	18	74.1	45	269.15	17	125.75	9	16.4	2	3	166	836.4	
Pickens									2	2.5	4	4	3	2.5	7	12.2	13	41.4	9	25.6					39	88.4	
Richland	2	2.5							1	1.5	3	25	7	41.35	2	19	8	34.85	5	18.2	3	22.1			32	329.8	
Saluda									1	3.8	1	0.5	2	1.1	1	1	3	0.3	1	0.1					7	2	
Spartanburg									1	3.8	1	3.7	4	6.4			9	39	1	1.7	3	2.6	1	0.1	20	57.3	
Sumter	1	0.5											22	89.55	10	87.8	23	165.7	7	31.4	5	10.1	1	30	79	434.45	
Union	1	1							3	12.5	17	131.2	19	146.6	22	182.6	42	661.1	36	271.3	8	52.5	5	9.2	158	1480.2	
Williamsburg	1	1	4	12	1	0.2							3	12.5	17	131.2	19	146.6	22	182.6	42	661.1	36	271.3	8	52.5	
York													4	8.2	4	8.2	11	31.2	1	0.3					21	45.8	
Grand Total	84	269.25	48	106.5	22	26.5	18	18.3	39	63.4	180	692.6	352	1596.0	302	1851.45	679	5215.4	384	2701	129	665	46	272.6	2283	13478.03	

Total All Land Fires by County & Cause - Fiscal Year 2005

County	Lightning		Campfire		Smoking		Debris Burning		Incendiary		Equipment Use		Railroad		Children		Miscellaneous		Total No.	Total Acres
	No.	Acres	No.	Acres	No.	Acres	No.	Acres	No.	Acres	No.	Acres	No.	Acres	No.	Acres	No.	Acres		
Abbeville	5	9.9			3	7.2	11	22.3	7	16.2	5	9.3			3	1.1			29	56.1
Aiken					1	30	57	324.7	4	6.7	9	11.1	1	3	23	50.8	18	83.3	118	519.5
Allendale							6	7.6	7	16.2	3	4.2	1	15	1	11.5			18	54.5
Anderson	1	0.1	1	1.2	1	2	11	57.8	5	17.6	1	3			1	5	5	34.6	26	121.3
Bamberg	2	0.2	1	1	4	30	11	101.7	3	4.2	4	3.2			2	12			27	152.3
Barnwell							10	35	1	35	2	3.1			2	3	6	17.7	21	93.8
Beaufort							11	195.3	19	130.1					6	20.2			36	255.6
Berkeley			1	0.1			61	273	60	425.4	1	10	1	5	8	58.5	20	158.6	152	930.6
Calhoun	2	92.4			2	5	30	86.9	1	0.2	5	6.6			3	2.2	2	10	45	203.3
Charleston	1	1			1	60	26	51.2	8	22					1	0.1	4	16.5	41	150.8
Cherokee					3	7.5	7	16.8	3	6.3	2	3			3	11	2	31.3	20	75.9
Cherokee							11	27.1	3	0.7	3	7			1	8	1	4	19	46.8
Chester					5	28	52	215.9	9	80.1	2	16	1	1	4	7.3	4	2.8	81	449.1
Chesterfield	3	92	1	6	1	2	47	180.2	29	78	10	73.1			5	10.7	9	91.6	101	435.6
Clarendon					3	14	74	342.8	39	455.9	4	8.1			2	15.1	5	5.1	128	843
Colleton			1	2	1	0.5	41	140.8	6	16.6	4	5.1			2	4.5			59	169.7
Darlington	1	0.1			1	1	10	55.3	12	260.9	6	10.7	1	1.3			3	35.5	33	364.7
Dillon					1	15	24	318.9	11	138					3	9.1	3	10.1	42	491.1
Dorchester							8	43.7							2	5.2	2	0.2	12	49.1
Edgefield							9	46.2	6	22.3	2	1.7			1	0.1	7	2.4	26	75.7
Fairfield	1	3			1	5	52	235.1	31	199.3	5	31	2	13	2	1.2	5	3.9	100	496.7
Florence	2	8.2					35	181.4	20	571.6	5	17.7			3	32	2	2	66	806.7
Georgetown	1	2			1	0.1	4	13	3	53	1	4	1	3	4	10.5	9	23.5	23	107.1
Greenville					1	4	1	3	1	3	1	0.1	1	2			1	0.1	6	14.2
Greenville					1	0.1	16	71.3	8	18.3	5	7.1			1	2	1	1	34	106.8
Hampden	2	7					41	368.2	33	371.5	3	6			11	22.1	8	118.7	97	898.5
Horry			1	12			24	247.5	37	432.4	2	2.2			2	18			66	725.1
Jasper	1	25					30	177.3	10	62.8	8	11.1			1	30	9	25.2	64	337
Kershaw	2	21.5	1	0.1	3	9	30	111.1											15	50.4
Lancaster					2	1.1	9	33.8	1	3	1	3.5			2				27	108.7
Laurens					1	0.2	4	41.6	5	10.7	4	8.5	3	8	5	12.7	5	27	23	107.1
Lee	1	1					9	38.5	4	4.5	4	9			1	3	4	14.5	23	70.5
Lexington	2	1.8	1	4	1	2.5	36	96.6	10	25.1	1	1	1	0.2	24	42.6	8	202.6	84	376.3
Macon	1	4					5	39.2	3	4.1	1	0.1			2	2.8	1	1.5	13	51.7
Macon	1	0.1					17	47.5	20	239.3	7	20.3	1	2	1	10	2	3.3	49	322.4
McClintock			2	1.5			1	0.2			2	1.1	2	0.3			4	6.4	11	9.5
Newberry							3	2.2	1	0.5							1	1.1	6	4.3
Oconee	1	10			2	22	12	83.3	6	14.3	1	3					4	9.5	26	142.1
Orangeburg	5	27			16	95.6	87	323.2	21	123.2	17	163.4			10	54	10	50.1	166	836.4
Pickens	2	13	2	22.2	1	1.5	13	30.2	1	5	1	0.5			4	2.5	15	13.5	39	88.4
Rhodes	1	2					11	141.3	6	44.5	2	75.8			4	11.5	8	54.8	32	329.8
Saluda							6	1.9			1	0.1							7	2
Spartanburg	1	0.1			1	0.1	10	33.9	1	3.7	1	0.5			2	3	4	16	20	57.3
Sumter					2	50	41	181.2	11	37.4	8	44.4			6	8.6	11	112.9	79	434.5
Union					1	0.3	7	12.5	1	0.7	1	0.3			2	8	5	15.6	17	37.4
Williamson	1	1					61	336.3	82	822.1	11	318.5			3	6.1	7	25.6	158	1480.2
York					1	1	10	13.1											21	45.8
Grand Total	40	322.4	12	50.1	62	394.7	1062	5206.2	549	4784.4	156	904.3	17	54.3	156	502.8	229	1258.9	2283	13478.03

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 collapsed over most of the outbreak zone. As of June 30, 2005, there were 2 counties in outbreak status. These were Edgefield and McCormick. The largest active infestations were 50-100 trees 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 2004-2005, the losses were minimal. During that time, SCFC foresters and technicians plotted 2,387 active beetle spots containing 40,743 trees. This timber had an estimated volume of 2,313 cords and 1,629 thousand board feet. The green value of this timber was \$520,817.

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. We received no requests for cut and leave treatments this year.

The suppression program also funded six positions in the agency where existing employees were redirected 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 2005, 31 counties were pheromone trapped for prediction of Southern Pine Beetle population trends. No counties trapped enough beetles to predict a severe outbreak. In Chester, McCormick and Newberry counties, sufficient beetles were trapped to predict increasing-high pine beetle activity. Two additional counties in the piedmont and coastal plain had predictions of moderate beetle activity. These were Edgefield and Horry. Aerial surveys were in progress at the end of the fiscal year and very little beetle activity was seen outside of the Savannah River drainage. Surveys will continue as needed.

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 existing forester level positions. A coordinator was also identified and assigned to this program. Six additional new forester positions were created and filled at one/unit.

Hemlock Woolly Adelgid

An exotic insect pest of hemlock was discovered in South Carolina in 2002. 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 and is currently rearing two species of predatory beetles to relocate in infested stands.

Unfortunately, we may face the loss of hemlock as an important forest species. We have contracted with Clemson to perform a survey of susceptible stands to delineate the infestation area.

Emerald Ash Borer

This is another introduced insect that is not yet a problem in South Carolina, but is established in some northern states. Last year's survey found no infestation by the EAB. We will do a second year of survey of Ash in S.C. this year to certify our lack of infestation.

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. Unfortunately, some infected plants were shipped to S.C, but no local spread was detected.

As part of a southeastern project, we are cooperating in a survey to be sure the disease does not occur here. Oaks and rhododendrons and other susceptible species were sampled in the forest adjacent to commercial nurseries. At this time all sample results from the lab at Clemson are negative.

Miscellaneous Insect And Disease Checks

Commission foresters made approximately 439 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 2004-2005, the Insect and Disease Laboratory processed 58 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, 15,171 southern pine beetles and 24,355 clerids were counted in the lab.

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 nine locations we have placed three 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, sorted, 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 392,453 acres in 12 counties. Defoliation occurred until late May at which time the insects pupated and became adults. The most impacted areas were along the Santee, Pee Dee and Edisto basins, and in many low country swamps.

Timber losses due to beaver impoundment and feeding were seen on a total of 13,950 acres. Fire mortality was detected on 8,325 acres. The estimated value of beaver and fire-killed timber was \$8 million. Annosus root rot was also identified on 51,820 acres. Value lost due to annosus was estimated to be \$1,865,520.

EQUIPMENT

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

This section is responsible for providing technical assistance and advice to repair shops, developing specifications for fire suppression equipment and motor vehicle fleet, and arranging training for all field mechanics.

Maintenance facilities at the regions, state forests, Taylor Nursery and Central Repair Shop were all certified by State Fleet Management. The Forestry Commission has nine maintenance facilities.

Three training sessions were offered to our mechanics during the fiscal year.

Equipment Purchased

Coastal Region

- One (1) Terra Riser Maintenance Harrow
- Two (2) Oliver Dahlman Maintenance Harrows
- Two (2) 2005 Explorers (Law Enforcement and Dispatch Manager)
- One (1) 2005 Ford F350 Truck with Mechanic Bed
- One (1) 2005 Ford F-550 Truck (Mechanic)
- Two (2) 2005 JD700J Crawler Tractors

- Three (3) 2005 JD550J Crawler Tractors

Pee Dee Region

- One (1) Oliver Dahlman Maintenance Harrow
- One (1) 2005 F-350 Ford Truck w/Mechanic Bed
- Two (2) 2005 3/4T 4x4 Chevrolet Ext. Cab Trucks
- Two (2) 2005 Chevrolet Transport Trucks
- Five (5) 2005 JD550J Crawler Tractors
- One (1) 2005 1/2T Ford Truck Ext. Cab (Law Enforcement)

Piedmont Region

- One (1) 2005 1/2T Ext. Cab Chevrolet Truck (Law Enforcement program)
- Two (2) 2005 1/2T Extended Cab Chevrolet Trucks (BMP program; FIA program)
- Two (2) 2005 Ford Explorers (Law Enforcement)

Sand Hills State Forest

- Two (2) 2005 Ford Explorers
- Three (3) 2005 1/2T Ford Trucks

Columbia Headquarters

- One (1) 2005 Mini Cargo Van

The Forestry Commission prepared and organized equipment for auction in November 2004. The auction netted the Forestry Commission \$197,445.00. This money was used to purchase equipment.

LAW ENFORCEMENT

The agency had an average of 37 sworn officers during FY 05. Of these, seven were investigators focused primarily on timber theft, timber fraud, and woods arson.

Despite a light fire season, fire investigations and prosecutions increased significantly. Strong emphasis on law enforcement resulted in prosecutions on more than 22% of all wildfires suppressed by the Forestry Commission.

Sustained aggressive law enforcement appears to be reducing the amount of timber transaction crime. During FY 05, agents responded to 186 complaints, down 13% from the previous year.

In addition, officers wrote 81 litter tickets.

Officer Kenny Robertson became the first SCFC officer ever to win the SC Criminal Justice Academy's J.P. Strom Award. The award is given to the top graduate in the Academy's nine-week basic law enforcement course.

County	Prosecutions			Total	Investigations			Burn Site Inspection	State Forests	
	Outdoor Burning		Fire		Timber Theft/Fraud		Prose-cutions		Fines	
	Prosecu-tions	Fines			Investi-gated	Settled				
Abbeville	1	\$102.00	0	1	12	0	0	0		
Aiken	7	\$1,813.50	0	7	33	6	5	2		
Allendale	2	\$388.00	0	2	8	1	1	0		
Anderson	1	\$125.00	0	1	1	2	1	1		
Bamberg	5	\$663.00	2	7	26	4	1	5		
Barnwell	2	\$205.00	0	2	8	0	0	0		
Beaufort	5	\$1,610.00	0	5	29	2	1	0		
Berkeley	21	\$5,237.50	0	21	42	0	0	6		
Calhoun	15	\$2,441.00	0	15	42	1	1	1		
Charleston	6	\$859.64	0	6	24	1	1	1		
Cherokee	1	\$0.00	0	1	13	2	1	1		
Chester	4	\$0.00	0	4	9	1	1	1		
Chesterfield	11	\$200.00	0	11	62	7	4	0		
Clarendon	7	\$400.00	0	7	71	5	3	2		
Colleton	15	\$1,830.00	0	15	70	10	6	1		
Darlington	37	\$4,543.50	0	37	38	5	3	1		
Dillion	5	\$380.00	0	5	24	4	1	21		
Dorchester	5	\$843.75	0	5	5	6	4	18		
Edgefield	0	\$0.00	0	0	0	0	0	0		
Fairfield	5	\$657.00	0	5	5	16	8	0		
Florence	36	\$5,474.00	0	36	79	6	4	11		
Georgetown	21	\$2,240.00	0	21	41	2	2	6		
Greenville	10	\$1,524.50	0	10	11	5	3	14		
Greenwood	1	\$50.00	0	1	1	4	2	0		
Hampton	3	\$705.00	0	3	26	6	4	1		
Horry	50	\$5,130.00	0	50	68	8	5	15		
Jasper	7	\$1,523.00	0	7	54	0	0	0		
Kershaw	30	\$2,808.50	0	30	52	8	6	0		
Lancaster	13	\$730.00	0	13	13	3	2	0		
Laurens	0	\$0.00	0	0	0	3	1	0		
Lee	4	\$300.00	0	4	14	0	0	0		
Lexington	13	\$2,706.00	0	13	18	7	5	2		
Marion	10	\$200.00	0	10	10	0	0	0		
Marlboro	5	\$176.00	0	5	20	6	4	0		
McCormick	0	\$0.00	0	0	0	2	1	0		
Newberry	0	\$0.00	0	0	0	3	2	0		
Oconee	15	\$5,306.00	0	15	15	2	2	0		
Orangeburg	43	\$9,508.00	0	43	136	4	3	0		
Pickens	8	\$637.00	0	8	23	8	6	8		
Richland	6	\$1,500.00	0	6	9	6	5	2		
Saluda	1	\$150.00	0	1	1	2	1	0		
Spartanburg	5	\$768.76	0	5	6	8	6	0		
Sumter	34	\$6,675.00	0	34	61	3	2	2		
Union	0	\$0.00	0	0	0	3	2	0		
Williamsburg	37	\$1,976.01	0	37	124	5	3	0		
York	6	\$525.00	0	6	13	9	7	9		
Manchester									77	\$14,320.00
Sandhills									67	\$13,776.75
Poe Creek									12	\$1,772.00
Harbison									0	\$0.00
Totals	513	\$72,911.66	2	515		186	120	131	156	\$29,868.75

FOREST MANAGEMENT

There are 12.2 million acres of commercial forestland in South Carolina. According to the 2001 U.S. Forest Service Survey, farmers and non-industrial private owners own 73% of this land. Forest industry owns approximately 16% with 11% in public ownership.

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, and urban & community forestry. 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. The urban & community forestry program strives to help local government, educational institutions and non-profit organizations develop and enhance the benefits provided by trees and greenspace where we live and work.

In addition to programs designed to assist private landowners and local communities, the Forest Management section also coordinates development and management of almost 90,000 acres of forests included in the state forest system. These lands are owned by the Forestry Commission and provide forest based recreation opportunities and serve as examples of the benefits of active 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, 1244 management plans were prepared for 82,819 acres. Beginning in July of 1999, customer satisfaction surveys were sent to every landowner that received a forestry management plan. In FY 05, 97% of the landowners that responded to the survey indicated that they were satisfied with the management plan they received. Of these landowners, 95% 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 177 cases were referred to consulting foresters and 34 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. Beginning in 2001, the objectives of the Forest Renewal Program were expanded to include providing funds to help match federal grants that provide financial support for the Forest Inventory and Analysis (FIA) program.

Conservation Reserve Program (CRP) - Federal

The Program began with crop year 1986 and was renewed with the passage of the 2002 Farm Bill.

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	330	8,611	0	2,390	\$716,987
CRP	136	2,709	0	0	\$126,243
Totals	466	11,320	0	2,390	\$843,230

SEEDLING SURVIVAL

Survival checks were made on 10 percent of plantings using a row count or tenth acre plot method for determining survival. An average of all survival checks was used to determine the statewide survival of 78% for loblolly pine plantings. Survival rates for longleaf pine plantings were tabulated separately. Plantings with longleaf seedlings had a survival rate of 65%.

Forest Management Assistance 2004-2005

Stewardship/FLEP County	Non Cost-Share		Cost-Share		Forest	
	Exams	Acres	Exams	Acres	Exams	Acres
Abbeville	18	879	6	326	1	74
Aiken	13	1,227	20	1,411	0	0
Allendale	1	30	4	197	2	413
Anderson	117	4,072	1	49	1	35
Bamberg	4	540	9	560	1	370
Barnwell	7	281	19	1,100	0	0
Beaufort	6	1,390	1	5	2	347
Berkeley	23	801	7	287	1	220
Calhoun	1	40	36	1,878	5	778
Charleston	47	2,602	2	106	3	446
Cherokee	5	218	3	169	1	52
Chester	12	1,255	8	325	2	358
Chesterfield	5	395	14	611	2	626
Clarendon	3	348	9	413	2	705
Colleton	31	3,397	24	1,275	3	1,432
Darlington	1	200	23	1,261	3	617
Dillon	7	376	9	185	1	182
Dorchester	38	1,778	5	115	1	58
Edgefield	0	0	0	0	3	177
Fairfield	8	847	18	891	3	373
Florence	14	1,112	25	640	4	671
Georgetown	9	650	9	349	1	109
Greenville	29	822	1	62	5	357
Greenwood	9	456	5	236	2	535
Hampton	20	1,809	13	854	2	462
Horry	13	1,806	19	418	3	556
Jasper	5	704	5	277	0	0
Kershaw	9	578	5	83	2	427
Lancaster	5	321	7	307	3	623
Laurens	10	600	3	128	3	387
Lee	7	620	16	474	3	375
Lexington	9	377	10	450	0	0
Marion	13	596	13	446	4	1,219
Marlboro	1	60	5	252	3	733
McCormick	19	1,990	6	816	3	377
Newberry	10	508	15	792	1	41
Oconee	23	1,307	0	0	6	1,125
Orangeburg	8	781	72	2,568	8	1,440
Pickens	16	724	0	0	2	274
Richland	5	140	2	41	0	0
Saluda	5	218	0	0	3	777
Spartanburg	12	576	12	633	2	244
Sumter	4	232	4	101	0	0
Union	6	783	9	423	2	407
Williamsburg	4	191	21	1,002	2	299
York	15	1,921	19	556	2	488
State Totals	627	40,558	514	23,072	103	19,189

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.

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.

Service	Number of Tracts	Units of Measure	Receipts FY 04-05
Firebreak Plowing	443	1,392 miles	\$123,430
Prescribed Burning	86	7,756 acres	\$81,911
Prescribed Burning Standby	18	944 acres	\$2,873
Equipment Rental	26	343 acres	\$1,740
Water Bar Construction	3	46 bars	\$763
Timber Marking	5	465 cords 1,552,648 board feet.	\$9,789
Totals	581		\$220,506

Beginning in July of 1999, a customer satisfaction survey was sent to all landowners that received forestry services. In FY 05, 54% of the surveys were returned and 93% of these landowners indicated that they were satisfied with the services they had received.

COMMUNITY FORESTRY

The Community Forestry program exists to provide technical assistance to municipal and county governments in creating, maintaining, and enhancing community forest conservation and management within their jurisdictions; to provide for, coordinate and/or conduct information, education and training regarding community forestry, wildland-urban interface issues, and arboricultural best management practices; to provide financial assistance grants to local governments, non-profit organizations, and educational institutions of higher learning in order to create, enhance and support long-term local, regional and statewide community forestry programs. This assistance is accomplished through a variety of ways: direct contact, diverse and cooperative partnerships, and the financial assistance grant program.

Expected results include but are not limited to: improved air quality, energy conservation through reduced heat island effect in downtown areas, local government recognition and management of the community tree resource, sustained financial support on the local level for community tree management, more professional public tree managers to provide safe walkways, streets and parks, and more public trees planted and maintained to beautify, cool, and clean South Carolina communities. These results occur when a community or county government works towards accomplishing a natural resource inventory and management plan, employs professional urban forest staffing, adopts and implements natural resource policy, and works in partnership with local advocacy organizations.

Community Forestry Financial Assistance and Partnership Program

The Community Forestry Financial Assistance and Partnership Program is a state program funded on the federal level with monies appropriated by Congress. These funds are funneled through the U. S. Forest Service to the SC Forestry Commission to administer. Pass-through funds in the amount of \$228,000 were awarded to municipal and county governments, non-profit conservation organizations, and educational institutions to assist in the creation, enhancement and support of long-term local, regional and statewide community forestry programs. Specific project types include but are not limited to: educational tree planting, public tree ordinance development, community forest management plans, community forestry staffing, and training and continuing education.

Tree City/Tree Line USA

Sponsored on the national level by the National Arbor Day Foundation and others, the Tree City USA program is administered in South Carolina by the SC Forestry Commission. This program seeks to stimulate and promote the management of community trees by recognizing towns and cities which meet the following criteria: (1) establishment of a municipal tree care ordinance, (2) expenditure of at least two dollars per capita on their community forestry program, (3) establishment of a legally constituted tree board or permanent staff to address tree issues, and (4) observance of Arbor Day by a mayoral proclamation and official ceremony. The SC Forestry Commission has recognized and awarded 33 municipalities, 1 county, and 2 military bases under the Tree City USA program during 2005.

The Tree Line USA program, also sponsored by the National Arbor Day Foundation, seeks to stimulate and promote proper utility 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 sixth consecutive year.

Partnership Development and Educational Programs

Through the direct technical assistance of the community forestry staff and implementation of the Financial Assistance projects, the program strives to develop partnerships with a variety of organizations and units of local government. Often these partnerships result in educational programs regarding the economic, ecological and social value of community forest resources. During FY 05, 67 partnerships were developed and 68 different educational sessions were presented to approximately 4,800 South Carolinians, both youth and adults.

<i>Types of Technical Assistance</i>	<i>Program Accomplishments Community Forestry Staff</i>			<i>Program Accomplishments Financial Assist. Grants</i>
	<i># of Customers</i>	<i># of Assists</i>		<i># of grants awarded</i>
Program Development/Expansion				
Municipal Governments	62	96		16
Non-profit organizations	28	74		3
Educational Institutions	9	31		9
State/County Governments	<u>38</u>	<u>67</u>		<u>4</u>
TOTALS	137	268		32
Public Tree Ordinances Developed	1			2
Urban Forestry Cultural Practices				
Commercial/Business	16			NA
Residential	75			NA
Public Agency	<u>27</u>			NA
Total # of Assists	118			
Public Trees Inventoried	NA			23,409
Public Trees Planted	NA			2,429
Tree City USA's	36			1
Demonstration Planting Projects	5			8
Partnership Development	28			106
Public Information/Education	Adults	Youth	Totals	Totals
# Programs	43	18	61	21
# of people	1,239	2,473	3,712	4,378
# of hours	85	38	123	1,068
# of seat hours	1,805	2,828	4,633	12,596

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 05, 159 Stewardship Plans were written in South Carolina on 27,771 acres. The plans were written by the following cooperators: S.C. Forestry Commission/ DNR- 92 plans; and Forest Consultants- 67 plans.

Nineteen landowners (comprising 15,722 acres) were certified for FY05.

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 2004-2005, four 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
Edisto Wildlife Management Area
Jocassee Gorges
Santee Coastal Reserve
Bonneau Ferry Wildlife Management Area
Congaree Bluff Heritage Preserve

Department of Disabilities and Special Needs

Whitten Center

SC Department of Parks, Recreation and Tourism

Chester State park
Barnwell State Park
River's Bridge State park
Colonial Dorchester State Park

SC ETV Commission

Aynor, Florence and Whitehall tower locations

Timber Revenue

Seven state-owned tracts were marked or cruised for timber sales and produced an estimated volume of 1,301,522 board feet of pine and 36,878 board feet of hardwood sawtimber. Also included in these sales are 474 cords of pine pulpwood and 278 cords of hardwood pulpwood.

Three tracts were also cruised with estimated volumes of 205,000 board feet of pine and 4,378 cords of pulpwood. Additionally, four (4) timber sales were held during FY2005, generating a total of \$228,698 in revenues.

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. An additional 250 acre tract in Compartment 18 has been acquired and planted with longleaf pine.

Receipts

Since 1967, Sand Hills has been totally self-supporting. No appropriations were received for H. Cooper Black Recreation Area in FY 2005.

Receipts for Sand Hills Operating Budget

Activity	Receipts
Timber Sales	\$662,885
Pinestraw Sales	\$489,557
Stump Sales	\$9,366
Rent State Owned Property	\$4,280
Wildlife Management Area Payments	\$21,270
User Fees	\$19,207
Prior Yr Refund	\$4,458
Donation	\$6
Total	\$1,211,029

Note: 25% of \$1,202,284.70 was paid to Chesterfield and Darlington County School Systems. Sale of recyclables, donations, prior year refunds, and rental income categories are not included when calculating the total to be dispersed to the school systems. An additional \$365.00 was generated from 25% of Cooper Black user fees.

Chesterfield County Schools	\$293,713.71
Darlington County Schools	<u>\$ 7,222.47</u>
Total	\$300,936.18

Silvicultural Practices

Containerized longleaf seedlings were planted on 125 acres. These areas were formerly farm rental fields that were converted to longleaf pine.

The following species and number of seedlings were planted:

Containerized Longleaf Pine	100,000
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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 straw 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 5 individuals working on approximately 10,767 acres of land. The enhancement contracts on 9,215 acres have expired

Pinestraw Enhancement Program

<u>Fiscal Year</u>	<u>Contracts</u>	<u>Acres</u>
1999	15	4,565
2000	29	5,635
2001	25	6,922
2002	5	1,104
2003	3	467
2004	15	2,147
2005	2	421
Total	94	21,261

As result of increased pine straw activity at Sand Hills State Forest, a vehicle registration system was implemented to ensure that licensed, insured vehicles were operating on the Forest. The registration stickers provide a visible means to those patrolling the Forest that the participant has complied with the program. The program started in FY 2003. Negotiated and advertised contracts require an orange sticker for vehicles. Enhancement contracts require a yellow sticker. This year shows a decrease in the number of stickers issued. Four hundred fifty six (456) were issued in FY03. Two hundred thirty six (236) were issued in FY 04. One hundred seventy eight (178) were issued in FY 05.

A total of 566 acres were prescribed burned for wildlife habitat enhancement, hardwood control and fuel reduction. Smoke management limitations and weather limited the number of acres burned this year.

Forest Protection

Sand Hills State Forest had one wildfire that burned 52 acres in FY 05. The fire was an incendiary fire.

Recreation/Education

Recreational use of the Forest continues to escalate. Hunting, fishing, horseback 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. The trailhead was moved from Flory Pond Road to a more visible site on U.S. Highway 1. Volunteers from the mountain bike user group did the majority of this work.

At Sugarloaf Mountain, there are 7 primitive camping sites for family camping and 8 primitive equestrian

campsites. Sand Hills' personnel booked 172 reservations for these sites this year. An estimated 3,803 visitors with 935 horses used the campsites and trails. FY 04 was the first time ever that a fee was charged for use of facilities at Sugarloaf. FY 05 fees ranged from \$15 for sites with shelters to \$10 for sites without shelters.

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, 24 stall horse barn, 63 pipe corrals, a full size arena with lights, two comfort stations, and a dump station are available for use. Five hundred dogs can be housed in the dog pens just miles from the camp area.

Twenty-three weekend events were scheduled at Cooper Black. Reservations for sites at Cooper Black showed a slight decrease from the previous year. Nine hundred sixty eight (968) reservations were booked. Reservations are required for campsites, stalls, corrals, training sites, arena, clubhouse, kitchen and grounds. Receipts from all reservations and other fees totaled \$49,175 (an increase of \$3,210).

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
FY 2004	1,369	268	1,637	8,849	2,037	4,986	1,281	13,835	3,318
FY 2005	968	172	1,140	10,967	1,967	5,582	935	16,549	2,949

***Number of Visitors and Horses does not include day users nor does it include any visitors from any other user group (i.e. hunters, fishermen, birdwatchers, pinestraw workers, etc.)**

Trail use permits increased from 1,246 permits in FY 2004 to 1,314 in FY 2005. Six hundred one annual permits and 713 daily permits were processed. Revenue from trail use permits totaled \$19,207.00. The majority of the annual permits are for horseback riders (575). Six hundred fifty six (656) of the daily permits were for horseback riders. Forty two percent of the annual permit holders are female.

The permit holders hailed from 93 cities in South Carolina, 69 cities in North Carolina, 1 city in Ohio, 7 cities in Virginia, 1 city in Alabama, 4 cities in Georgia, 2 cities in Tennessee, 4 cities in Florida 1 city in New Hampshire, 4 cities in Pennsylvania, and 1 city in Indiana and 1 city in New York.

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
FY 2004	1,246	192	1,438
FY 2005	1,314	78	1,392

Free-use permits are issued for any activity at Sand Hills State Forest that does not have a fee. Sand Hills' staff issued 78 this year. Twenty-nine (29) of the permits were for raking pinestraw for personal use, forty-seven (47) for gathering firewood, one (1) for camping and one (1) for removing sand for a playground..

As a result of community meetings, Sand Hills began a vehicle registration system for state forest users that wanted access to roads that had restricted use. The program began in December 2003. Two hundred twenty three (223) vehicles were registered in FY 2005. In comparison, 170 were issued in FY 04. The majority of the users were hunters.

Francis Marion University continues using Sand Hills as an outdoor classroom to bring botany students for hands-on plant identification. Professor Jerry Long gave hands on instruction to 33 students this year on 4 visits to Sand Hills.

Dr. Bill Alexander from the Governor's School of Science and Mathematics in Hartsville brought 2 classes to SHSF this year. In the fall he brought a vertebrate biology class of 10 to look at fish and other vertebrates. In the spring he brought an ornithology class of 12 students for bird identification.

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

Fifteen scout groups used Sugarloaf Mountain for their weekend campouts. Numerous church groups used Sugarloaf Mountain shelters for picnics and retreats. Sugarloaf Mountain continues to be a favorite place for many family reunions.

Twenty Coker College evening students taking Biology 101 used Sand Hills State Forest for biology lab assignments in the fall and spring. Brian Davis gave them a tour of Sand Hills State Forest with emphasis on prescribed burn areas and red cockaded woodpecker clusters.

West Florence High School Track Team used H Cooper Black as a training site for cross-country training. Twenty team members trained for 2 days. Cheraw High School's track team joined West Florence for the training this year.

Mr. Bill Truman of the Florence County Track Club brought several students to train for the Junior Olympics team.

Brian Scholtens from the College of Charleston traveled to SHSF to collect insects.

A forestry/wildlife presentation was done at Pate Elementary School in Darlington for 140 first grade students. Another presentation was made to 25 students at Edwards Elementary School in Chesterfield.

Brian Davis made a presentation on pine straw management to Chesterfield County Landowner's Association.

Wildlife Management

Approximately 40,000 acres of the Forest is included in the Wildlife Management Area Program. This is a cooperative agreement between the Department of Natural Resources (DNR) and the S.C. Forestry Commission. DNR 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 57acre public dove field. Thirty-five acres of the 57acre field were planted to annual crops with the remainder planted and maintained in bicolor lespedeza. A 30 acre farm field was made into a second public dove field this year. The field was planted in sunflowers and millet. It will open on September 3, 2005.

Darlington, Scott, Middendorf, Sexton and Campbell's Lake were reopened in September 2005 for fishing.

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 11, 12, 13 and the HCB area were bush hogged, fertilized, and limed. Two local volunteers worked approximately 400 man-hours with the Sand Hills staff planting and maintaining wild life food plots.

Quail Unlimited supplied \$1,000 worth of seed and fertilizer that Sand Hills staff used to establish and maintain 12 wildlife openings for quail.

Sand Hills continues to conduct surveys for DNR. Furbearers, fox squirrel, turkey and quail were surveyed to track population trends.

Rare, Threatened and Endangered Species Management

Red Cockaded Woodpeckers

Population Trends

The number of active clusters on SHSF was stable at 61 clusters and the number of potential breeding groups remained stable at 55 (Table 1). The number of solitary males was also the same at 4 individuals (Table 1). There are currently 61 active clusters, and 9 inactive clusters, of which 1 can be considered recruitment clusters on SHSF. The other 8 would require habitat work in order to be considered a suitable recruitment clusters. One cluster is currently considered to be a relict cluster.

Fifty-two nesting attempts were made by 50 groups in 2005; 41 of these attempts produced viable offspring (Table 1). The average clutch size for 2005 was 3.19 (Table 1). Ninety-eight chicks were produced on the forest this year, down slightly from 2004 (Table 1).

Management Implications: The 2005 breeding season on SHSF was slightly down from last year (Figure 1), and the five-year average growth rate is below what is expected for recovery (Table 1). The initiation of a vigorous recruitment program will likely result in greater increases over the next few years. Recruitment clusters are to be provided at a rate of 10% of the active number of clusters. Therefore, we need to supply 6 recruitment clusters for FY2006. This can be done by using the one recruitment cluster currently available, improving existing inactive clusters making them suitable recruitment clusters, and by the creation of up to five new recruitment clusters in previously unoccupied habitat. Placing new recruitment clusters in strategic locations based on the RCW management plan in concert with translocation of individuals to recruitment sites will likely result in the highest rate of population growth.

SHSF Reproductive Data 1992-2005

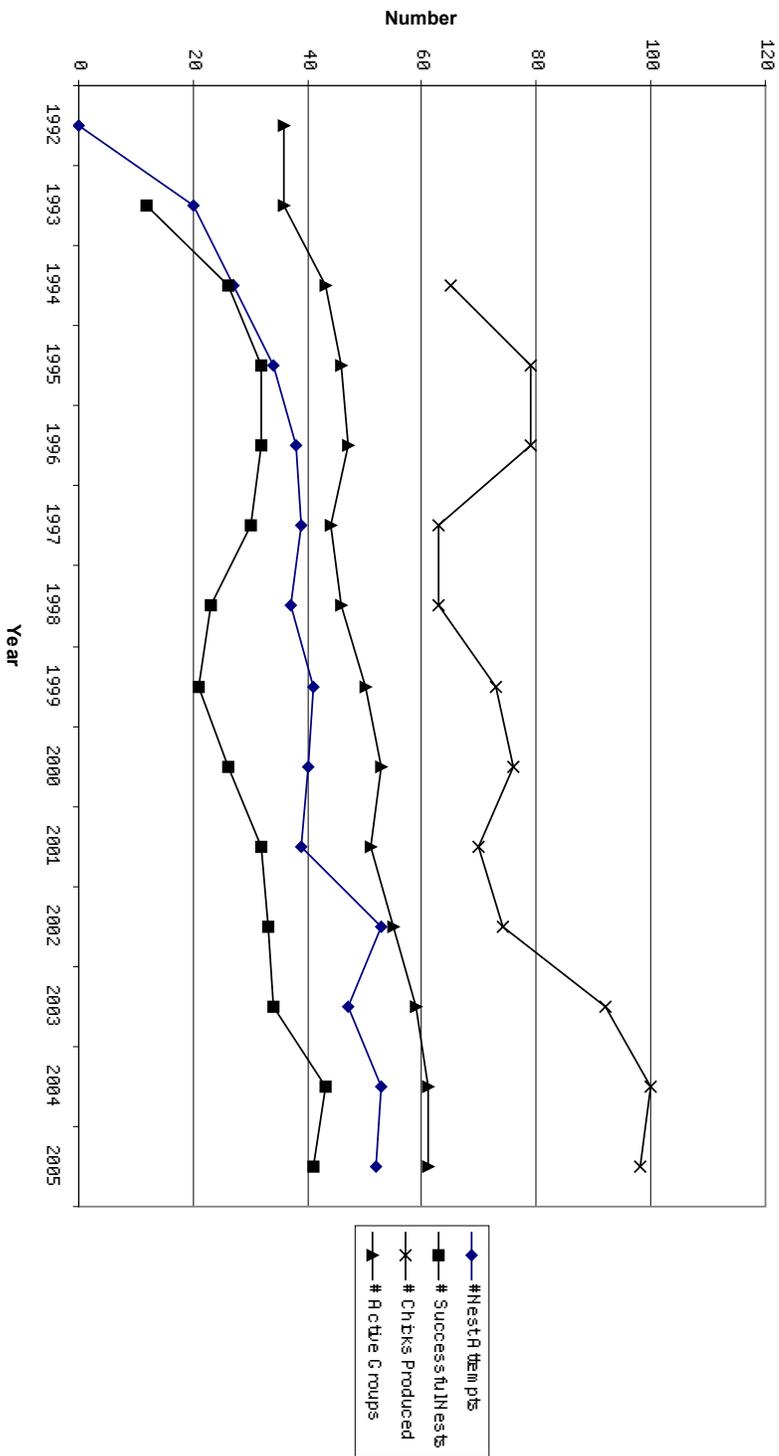


Table 1. 2005 Reproductive Data Compared to that of Previous Years at SHSF

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
# Active Groups	36	36	43	46	47	44	46	50	53	51	55	59	61	61
# Active Pairs	-	-	-	-	39	38	41	40	39	44	46	55	55	55
# Active Male Groups	-	-	-	-	3	6	5	10	14	7	9	4	4	4
# Nest Attempts (# Groups)	-	20	27	34	38	39(33)	37(34)	41(35)	40(35)	39(37)	53(44)	47(45)	53(50)	52(50)
# Successful Nests	12	12	26	32	32	30	23	21	26	32	33	34	43	41
Average Clutch Size	-	-	3.4	3.1	-	3	2.9	3.4	3.3	3.3	3.7	2.9	3.2	3.33
# Chicks Produced	-	65	79	79	63	63	63	73	76	70	74	92	100	98
Average Group Size ^b	-	-	-	-	-	-	-	2.6	2.5	2.5	2.5	2.5	2.5	2.5
% Groups w/ Helper	-	-	-	-	-	-	-	49	46	47	43	43	43	43
# Birds Banded	62	47	88	86	90	64	70	74	70	74	71	69	90	74
# Adults Banded	62	25	20	9	6	0	1	2	6	2	2	3	3	0
# Chicks Banded ^a	0	22	68	77	84	64	69	72(73)	64(78)	72	69	66	90	74 (92)
% Change Active Groups	0.00	19.44	6.98	2.17	-6.38	4.55	8.70	6.00	-3.77	7.84	7.27	3.39	3.39	0
5.yr Average Growth		4.44	5.35	3.20	3.01	1.82	4.66	5.21	4.15	3.98	3.98	4.15	4.15	3.98

^anumber in parentheses is actual number of chicks that made it to banding age

^bthis is the average group size for paired groups and does not include solitary male groups

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.

MANCHESTER STATE FOREST

Manchester State Forest, located in Sumter County and Clarendon County, is currently comprised of approximately 29,070 acres with the addition of 3,270 acres in the Tuomey Tract. 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:

Activity	Receipts
Timber Sales	\$292,855
Pine Straw Sales	\$82,510
Land Lease Payments	\$39,034
Wildlife Management Area	\$25,600
Trail and Special Use Permits	\$39,270
Total	\$479,269

Note: 25% of all forest receipts are paid to Sumter and Clarendon Counties for a total of \$119,817.49.

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

Silvicultural Practices

Approximately 128 acres of recently harvested areas were planted with longleaf pine.

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

<u>Species</u>	<u>Trees</u>	<u>Acres</u>
Bareroot Longleaf Pine	93,000	128

1,591.3 acres of longleaf pine stands were placed under a pine straw enhancement program utilizing three (3) vendors in fiscal year 2004. All of the enhancement acreage was enhanced by either mechanical or hand labor methods. Most of the acreage was raked and then treated with herbicides.

A total of 207 acres were prescribed burned for site prep, hardwood control, fuel reduction, and aesthetics. Fifty-six acres were improved by mowing with a piece of equipment from a private company on loan as a demonstrator.

Efforts began in 2004-05 to collect timber stand data for input into an internet based system that will allow designated personnel access to information for management decision making. The input data includes inventory, stand history, stocking, mapping, planting, cost data, etc. A forest technician was added to the

Manchester State Forest staff with the primary responsibility of collecting data for entry into the system from all of the state forests. Training for those personnel authorized to use the system began in January, 2005 and continues.

Forest Protection

One (1) wildfire occurred burning approximately one-tenth of an 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.

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 1,624 paid participants.

Manchester staff participated in five educational programs including Wood Magic, school programs, and Palmetto Pride with approximately 275 attending. An organized clean-up comprised of 40 volunteers was held on Manchester which resulted in 5.5 tons of trash being picked up. Those participating included Palmetto Pride, Clemson Extension, Sumter County, Shaw Air Force Base, and numerous volunteers from the various recreational groups as well as Manchester State Forest personnel.

Work continued on the "High Hills" section of the Palmetto Trail concentrating on redecking trestles and installing hand rails 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.

One meeting of the Manchester Recreational Advisory Council was held. Discussions included closures of hunting due to flooding of the Wateree Swamp, dog hunt drawing procedures and request for additional trails for motorcycle/atv and equestrian use. No action was taken due to lack of a quorum.

Wildlife Management

Approximately 26,000 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. Game harvests increased slightly from the previous year.

Manchester also hosted its annual youth dove hunt on the Bland Tract, which was limited to 35 youths accompanied by 28 adults who were required to register in advance. Two hundred five (205) doves were harvested during this event with 2,849 shots being fired.

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 580 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.

Infrastructure

The agreement with the South Carolina National Guard for the improvement and/or replacement of bridges, culverts, and roads on the Beidler Tract on Manchester as well as the Wee Tee Tract was completed. To date, 15 culverts were replaced, 2 bridges redecked, and 5 miles of roads surfaced with rock under this agreement. A coquina cairn was erected in appreciation and the dedication attended by local and state dignitaries.

WEE TEE STATE FOREST

Wee Tee State Forest located on the Santee River in lower Williamsburg and Georgetown Counties was acquired by the South Carolina Forestry Commission in November of 2003 through the partnership of eight participants. These partners included the South Carolina Forestry Commission, South Carolina Department of Natural Resources, The Conservation Fund, U. S. Forest Service, Forest Legacy Program, U. S. Fish and Wildlife, North American Wetlands Conservation Act Grant, Ducks Unlimited, National Wild Turkey Federation, and Anheuser-Bush. Wee Tee contains 12,394 acres, of which 770 acres are planted loblolly pine plantations and upland pine-hardwood types and the remaining 11,624 acres bottomland hardwood types with the associated oxbow lakes and creeks. Being in the Santee River Focus Area of Ducks Unlimited's Lowcountry Initiative, it is a very significant, unfragmented bottomland hardwood forest. Its significance lies in its watershed and water supply protection, habitat for wildlife and a number of threatened and endangered species, and the opportunities it provides for recreation, forest practices and education.

Receipts

As of fiscal year 2004 -05, \$31,269.81 was collected on Wee Tee State Forest as payment for SCDNR's WMA program from which \$7,817.45 was paid to Williamsburg and Georgetown counties.

Silvicultural Practices

None for fiscal year 2004-05.

Recreation/Education

Fishing in the Wee Tee Lakes was opened in April, 2004 on Wednesdays and Saturdays from sunup to sundown. Manchester State Forest personnel opened and closed the gates to the three boat landings for this opportunity.

A hunting season was planned with SCDNR and was implemented starting in September 2004. Harvest data was collected for both the deer and turkey seasons. Harvests were minimal due to continued high water levels in the Santee River Swamp.

Canoeing and kayaking will also be allowed at those times when the Wee Tee Lakes are open.

Funds have been secured and plans have been made to construct a permanent boat landing and parking lot in cooperation with SCDNR. Permits have been requested through the U. S. Army Corps of Engineers as well as SCDHEC and are currently in the comment phase.

Forest Protection

Gates have been constructed and placed on all known entrances into Wee Tee. Property boundary marking and signing are currently being conducted with completion expected in October of 2005.

Wildlife Management

An agreement has been reached in 2004-05 with SCDNR to place Wee Tee under the WMA program

according to a pre-closing cooperative arrangement. Hunting and fishing schedules were agreed upon and implemented.

Infrastructure

Manchester State Forest personnel made road improvements to Sanders Landing with material left by the previous owner. Rock and fill were hauled to Wee Tee from Manchester State Forest for maintenance of roads to the boat landings at Wee Tee Lake and Ferry Lake.

Renovations continued to the existing metal building which is being used as a work center at Wee Tee.

HARBISON STATE FOREST

Harbison State Forest, located approximately 9 miles from downtown Columbia, encompasses 2,176 acres. The forest was purchased in 1945 and became the site of the agency headquarters in 1963. Following the adoption of a Master Plan in 1981, the Forest began to be developed as an Educational State Forest. Recreational use grew markedly in the early 90's with Harbison soon gaining the reputation as a mountain biking mecca for the area.

Receipts

Parking fees were initiated in March 2004, at the suggestion of the Recreation Advisory Council, to provide more equity with regard to user fees. Since 1997, bicyclists have been required to purchase daily or annual permits while hikers, runners, picnickers, and other forest users were not required to pay fees. Fee boxes were installed at all trailheads in February 2004 to allow visitors to purchase parking permits without assistance.

Receipts for Operating Budget

Activity	Receipts
Shelter Rentals	\$1,620
Conference Room Rentals	\$11,375
Bike Permits	\$25,386
Special Use Permits	\$950
Parking Permits	\$11,844
Camping/Firewood Donations	\$340
Trail Maintenance Donations	\$650
Total	\$52,165

Note: 25% of all receipts except facility rentals are paid to Richland and Lexington County School Systems. This amounted to \$14,027 for the 2004-2005 fiscal year.

Silvicultural Practices

Recovery of the Forest following the 2002 southern pine beetle outbreak continues to take place at a satisfactory rate. Most of the areas that were understocked following salvage operations now contain an adequate number of natural seedlings, most of which are loblolly pine. Control of competing hardwoods and pines is being considered for the 4 areas that were planted during 2003 (2 areas of loblolly pine and 2 areas of longleaf pine) to demonstrate management options for private landowners.

A 1 1/2-acre prescribed burn was conducted during March 2005 to serve as a demonstration area. The burn is located on the Discovery Trail behind the Education Center, so it is easily visible to many visitors. The east side of this trail was left unburned to provide a contrast to the burned area.

Forest Protection

No forest fires occurred on Harbison State Forest during this fiscal year. Individual tree mortality returned to a normal level following the 2002 southern pine beetle outbreak. Trees that were considered hazardous to Forest visitors and/or to buildings were felled as workload allowed. (Many of these trees were removed during chainsaw training conducted by the Forestry Commission Training Section.)

Recreation/Education

Several events were held on the trails at Harbison during the 2004-2005 fiscal year. Six mountain bike races were held – one each month from January through June 2005. A total of approximately 325 individuals participated in these events. An adventure race was held in February that involved about 35 participants. The largest event during this fiscal year was the Friends Weekend which included a bike race, a running race, a nature hike, and workshops on beekeeping, nature photography, and backyard wildlife habitats. It was estimated that over 150 visitors participated in this event that was sponsored by the Friends of Harbison State Forest. The Friends Weekend raised awareness among many area residents of opportunities available at the Forest. Publicity for the event included flyers at area businesses, articles in The State newspaper and Living In South Carolina magazine, and participation by the Forest Director and a Friends member in a talk show on a local radio station. In addition to these events, 5 trail work days were conducted during the 2004-2005 fiscal year. These events included the re-routing of approximately ½ mile of trail, rehabilitation of numerous wet areas on the trails, and pruning of overhanging branches and brush. Friends of the Forest members continue to provide leadership for these work days enabling Harbison staff to perform other functions during these weekend events.

The Friends of Harbison State Forest continue to meet on a monthly basis to plan events and promote the Forest. They have received recognition from the Secretary of State as a non-profit group and are currently seeking 501(c)3 status from the IRS. The mission of the Friends group is to “preserve and promote the recreational and educational aspects of this urban forest resource.” Current membership of this group is about 35 individuals.

Boy Scouts continue to provide assistance to Harbison through Eagle Scout projects and Cub Scout activities. Although no Eagle projects were completed during 2004-2005, several are currently in the planning stage. Cub Scouts and Boy Scouts performed maintenance on waterbars on the Eagle Trail and conducted other trail work on the Spider Woman II and Crooked Pine Trails. Numerous educational programs were conducted for Scouts and others at Harbison State Forest. (See the Education and Information Technology section of this report for details.)

Scouts and other organized groups continue to use the four primitive camping facilities at Harbison. Sixty-three groups used the camping facilities for a total of 1,381 campers.

The canoe landing at Harbison State Forest provides access to the Broad River. During the 2004-2005 fiscal year, 112 groups (349 total paddlers) used this facility.

Wildlife Management

Five wildlife viewing areas totaling 2 ½ acres are maintained each year. These areas are planted in cover crops such as wheat, rye, and clover to facilitate the viewing of wildlife by forest visitors.

Rare, Threatened, and Endangered Species Management

No threatened or endangered species are known to occur on Harbison State Forest. The two vernal ponds that were created in May 2004 have become well established. These ½-acre wetlands provide habitat for amphibians, reptiles, and many species of insects and are favorite stops on nature hikes by educational groups and other forest visitors.

Research

A Clemson University graduate student is conducting disease vector research on Harbison that involves the trapping of field mice. Yale University is co-sponsoring a project with the Centers for Disease Control in Atlanta to assess the population of ticks on the forest.

POE CREEK STATE FOREST

Poe Creek State Forest is located in Pickens County adjacent to SC Highway 11 and contains 1806 acres. The property was purchased from Crescent Resources, Inc. on April 6, 1999. Approximately 800 acres is under forest management with 610 acres of planted pine and 190 acres that have been clear-cut and allowed to regenerate naturally to native hardwood species

The remaining 1006 acres are in natural upland hardwood type and a mixture of white pine and hardwood. The steep terrain in this area will limit the forest management activities that can be implemented.

Receipts For Operating Budget:

Timber Sales	\$49,213
Wildlife Management Area	\$11,603

Silvicultural Practices

Harvesting continues on a 172 acre timber sale area. Most of this sale is a buyer select, first thinning on loblolly pine plantations.

Recreation/Education

Long Shoals Wayside Park, known locally as Sliding Rock, was dedicated on June 24, 2005. The two-year project, led by upstate conservationists Dennis Chastain and Dr. George Smith, has transformed a local party spot into a family recreation area. Improvements include grading and stabilizing parking areas, closing off vehicular access to erodable soils and slopes, and installing picnic tables, rest room and trash facilities. Project partners include the SC Forestry Commission; the SC Department of Transportation; the SC Dept. of Natural Resources; the USDA Natural Resources Conservation Service; the Town of Pickens; the Rural Water Company; Partners for Trout; the Carolina Association of Landscapers and Lawn Maintenance; Metromont Concrete Co.; the Boy Scouts of America; and numerous individual volunteers.

Trout fishing is available in Little Eastatoe Creek near Long shoals Wayside Park and in the Cheohee River near the Piedmont Forestry Center.

Forest Protection

Harvesting currently in progress on Poe Creek and harvests for planned for FY 2005-2006 on Piedmont Forestry Center will reduce density in over stocked loblolly pine plantations. This harvesting will improve forest health and reduce the hazard of wildfire and infestation by bark beetles.

Wildlife Management

The SC Forestry Commission and the Department of Natural Resources cooperate on the planting and management of a 40 acre dove field at the Piedmont Forestry Center. Poe Creek State Forest and Piedmont Forestry Center are also in DNR's Wildlife Management Area program and open to public hunting. During FY05, nine logging decks were graded and planted as wildlife food plots. Additional areas are slated for improvement in FY06.

Rare, Threatened, and Endangered Species Management

In FY04, habitat improvements were made on Poe Creek State Forest to restore the health of some populations of federally endangered plants. This work involved removing overhead competition that was impacting the health of the population by blocking sunlight. In FY05, additional overstory removal was done to further improve habitat for this endangered plant.

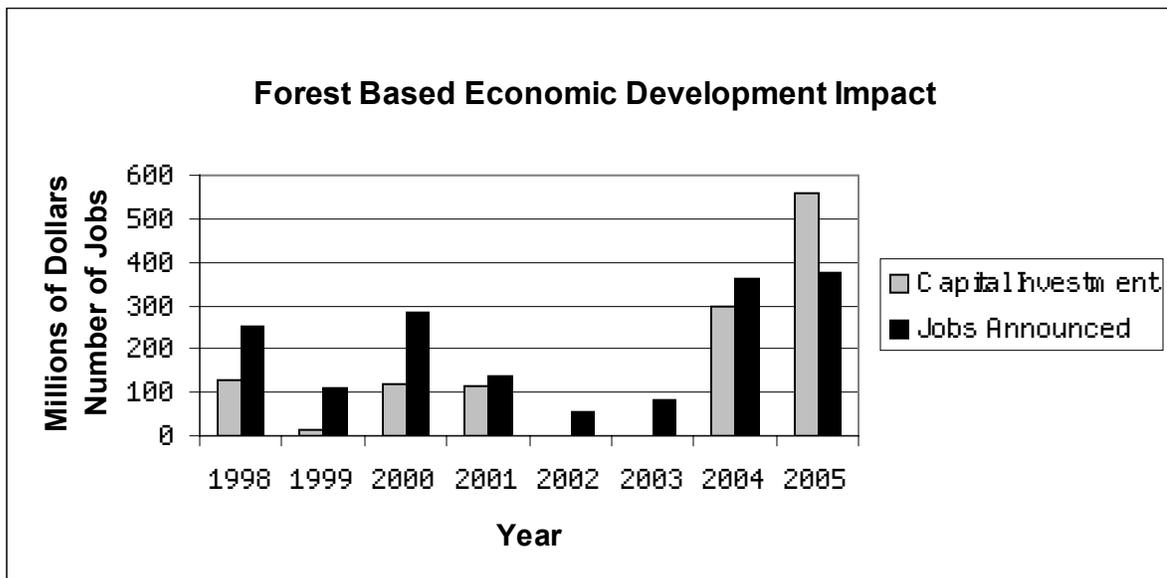
Infrastructure

Receipts from timber sales during the fiscal year were used to improve access to the property by installing culverts and rock to several miles of roads. In addition, two easements across private lands were obtained to provide official access to areas of the property that were inaccessible. Road improvements were necessary at both locations to improve access.

RESOURCE DEVELOPMENT

BUSINESS DEVELOPMENT

Forest industry development and investment increased significantly in FY 2004-2005. Grant Forest Products announced their intent to build two OSB (oriented strand board) plants in Allendale and Clarendon Counties in South Carolina. This will bring \$400 million in capital expenditures to the state and income for 240 families. Also notable, International Paper Company announced a \$125 million capital improvement project at their Eastover paper mill. Kronotex USA Inc. began operation of their laminated flooring plant in Barnwell County. Agency personnel worked on a total of 16 forest-product related economic development projects during the year.



A major emphasis during this past fiscal year was the promotion of woody biomass as a renewable energy source in South Carolina. The Strom Thurmond Institute at Clemson University was funded to publish a report on the “Potential for Biomass Energy Development in South Carolina.” The report was published in Fall, 2004 and the availability of up-to-date biomass information has been critical in working w/ potential bioenergy producers.

In addition to the Strom Thurmond Institute biomass project, the SCFC utilized USDA Forest Service grants to fund several economic development projects. “SC Forest Products – An Export Overview” was published in Fall, 2004 by the SC Export Consortium to highlight SC’s top forest products and markets. The use of bioretention cells for treating stormwater runoff was demonstrated by Clemson researchers at an Orangeburg County Industrial Park. Also, funding was provided to Clemson University to quantify the amount of biomass on Clemson Forest that could be utilized for bioenergy.

During the 2005 fiscal year, the SCFC Resource Development Division represented the agency and forestry community through 10 statewide and regional economic development organizations. The SCFC has taken a lead role in the SC Competitiveness Initiative representing the forestry clusters. Finally, 170 individual business assists were to address single-issue requests.

South Carolina became the first state in the US to complete the new annualized forest inventory and publish the results. “The State of South Carolina’s Forests” report was published in Fall, 2004. The report addresses forest resource status and extent as well as forest health issues.

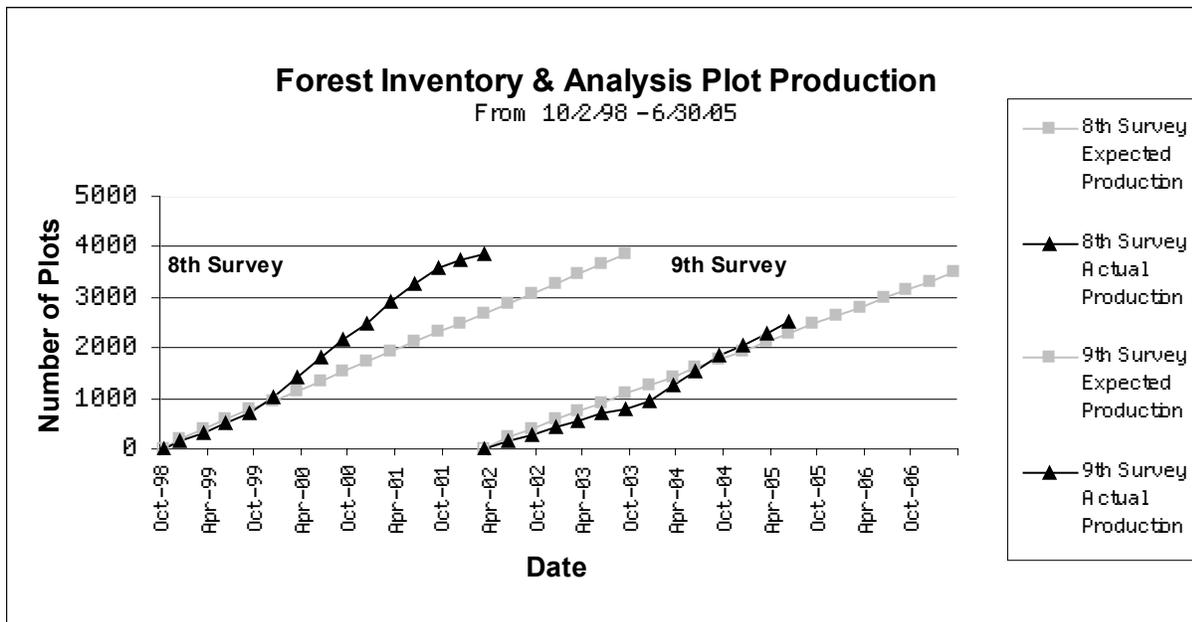
FOREST INVENTORY & ANALYSIS

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. Funding for the program is provided through a 75% Federal grant and a 25% state match of the program budget. There are 3,491 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. This network of plot data collection is referred to as the Phase 2 portion of FIA. The information provided by FIA Phase 2 allows the evaluation of both quantity and quality of these important resources. The US Forest Service furnishes data analysis and reporting for this program.

A subset of the FIA plots is selected to provide data on forest health, referred to as the Phase 3 portion of FIA. A total of 189 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. Phase 3 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. In FY 2004-2005 the US Forest Service collected all Phase 3 plots and withheld grant funds to accomplish the data collection. The Forestry Commission will collect Phase 3 plot data this summer.

Currently, four 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 data collected by Forestry Commission field crews. During FY 2004-2005, the average accuracy for all crews was 93.37%.

South Carolina is currently in the ninth remeasurement of the state. During FY 2004-2005, field crews completed one Panel of plots that began in FY 2003-2004, and began the next panel. For the year a total of 934 plots were completed. The Forestry Commission FIA program is currently on schedule to complete the entire ninth survey in five years with December 2006 as a target date for completion.



In fiscal year 2005, the Forestry Commission's Forest Inventory and Analysis (FIA) program completed 934 FIA plots. The FIA program is currently 72% completed with the 9th survey of the State. The FIA program is currently fully staffed with four two-person crews located across the state. If funding and staffing remain constant, expected completion of the 9th survey in December, 2006. Data for the 9th survey will be available online by Summer, 2007.

NURSERIES AND TREE IMPROVEMENT

NURSERIES

This year the SC Forestry Commission produced a total of 8,563,710 seedlings for the landowners in SC. A total of 5,530,881 were distributed. A total of 47,243,702 seedlings were planted this year from all sources of which 89.3% were grown in the state. This is down from 51,823,000 seedlings planted last year, which represents a 9.1% drop. Tree planting has been dropping 10-27% a year since 1999-2000. This follows nearly a decade of large scale tree planting driven by CRP incentives. These trees are now providing ample pulpwood through thinning and timber and pulp prices are very low. Future reforestation efforts will need to increase with estimates given by the recent announcement of two new OSB mills to be built in the state and their estimates of current inventories and reforestation figures.

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. Customer satisfaction surveys show a 96% satisfaction rate for products and services. We began shipping seedlings direct to customers by UPS both at Creech Greenhouse and Taylor Nursery in 2004. This was well received and 30% of orders were shipped this way this year, with an increase expected for the next several years. The seedling distribution centers, located in Wedgefield, Walterboro and Spartanburg were closed in 2004 due to reduced staffing and budgets. Customers had the choice of picking the seedlings up at Taylor Nursery or Creech Greenhouse or having their seedlings shipped by UPS to the location of their choice for additional charge.

Taylor Nursery has increased the number and type of hardwood seedlings and scaled back on loblolly and longleaf to adjust to changes in demand. Favorable weather conditions have resulted in a good crop and good field survival of seedlings, with the exception of our containerized Longleaf pine. It was reported by Forest Management that the overall state survival for containerized Longleaf was 59% compared to over 70% for bare root Longleaf. It is not clear why there is such a difference, but all aspects of the nursery operation are being reviewed and monitored this year to determine if any transplant failure can be attributed to nursery operations.

2004 -2005 was the last year for containerized seedling production and distribution from Creech Greenhouse facility. Creech Greenhouse container operation, in Wedgefield, produces all containerized seedlings and rooted cuttings for the landowners of SC. Creech Greenhouse operation was moved to Taylor Nursery facility this year. This allowed for more efficient production and consolidated resources and personnel. The first containerized crop sown at Taylor Nursery will be ready for harvest and distribution October 2005 through February 2006. Demand for longleaf seedlings has leveled off but demand for containerized longleaf is still strong.

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 seed were purchased and collected to support our growing variety of hardwoods being produced. Considerable stocks of pine seed are available.

Sales of surplus improved seed, especially the best families to industry, have generated considerable revenue the last few years.

TREE IMPROVEMENT

Niederhof Seed Orchard collected 628 bushels of second generation piedmont loblolly and 1,083 bushels of second-generation coastal loblolly pine cones. Only the best family seedlots are retained so that both a fast growth mix and rust resistant mix of loblolly pine can be grown at the nursery. Small quantities of “Niederhof’s Best” families are being grown at Taylor Nursery to provide seedlings with the maximum growth potential possible from our superior seed orchard selections. Surplus cones collected from other orchard selections were sold to various forest industry companies to generate additional revenue within the program. In addition, specific seed lots were designated for sale to forest industry with the same goal in mind. Due to recent budgetary constraints and a shift in emphasis, Niederhof staffing has been reduced to only the Seed Orchard Manager. Surplus second-generation orchard acreage was harvested in May to bring the orchard acreage more in line with program goals, and the very best sites within the clear cut areas were prepared for third cycle orchard establishment. With the assistance of personnel from Coastal Region, some 20% of the piedmont province third cycle grafts were out planted to establish new, third cycle orchard acreage. In addition, Niederhof is pursuing a unique opportunity for partnership with a private forestry company to enter into a research agreement that would provide new benefits for the non-industrial private landowners of South Carolina.

State Nurseries Seedling Production by Species, 2003-2004

Taylor Nursery Bareroot Seedlings

American Beauty Bush	3,000
Ash, Green	3,500
Baldcypress	10,000
Buttonbush	5,000
Cedar, Eastern Red	30,000
Chinese Chestnut	1,000
Crabapple, Southern	13,000
Dogwood	5,000
Dogwood, Silky	5,000
Hawthorn, Washington	7,000
Hickory, Mockernut	160
Lespedeza, Attaway	570,000
Lespedeza, Bi-color	32,950
Loblolly Pine, Coastal 2nd Generation	1,000,000
Loblolly Pine, Coastal 2nd Generation Rust Resistant	900,000
Loblolly Pine, Coastal 2nd Generation Fast Growth	300,000
Loblolly Pine, Piedmont 2nd Generation	1,366,000
Loblolly Pine, Pine 2nd Generation Rust Resistant	1,500,000
Loblolly Pine, Pine 2nd Generation Fast Growth	1,000,000
Loblolly Pine, Texas	50,000
Longleaf Pine	1,400,000
Maple, Red	1,000
Mulberry, Red	4,000
Oak, Burr	1,000
Oak, Burr (NWTF)	10,000
Oak, Cherrybark	50,000
Oak, Gobbler Sawtooth	12,000
Oak, Live	5,000
Oak, Northern	1,000
Oak, Northern (NWTF)	40,000

Oak, Pin (NWTF)	20,000
Oak, Sawtooth	37,000
Oak, Swamp Chestnut	3,000
Oak, White	25,000
Oak, White (NWTF)	10,000
Oak, Willow	9,000
Pawpaw	2,000
Pear, Common	9,000
Pecan, Wild	20,000
Persimmon	3,400
Plum	6,200
Redbud	1,460
Slash Pine, Rust Resistant	10,000
Sweetgum	25,000
Sycamore	27,000
Tupelo, Blackgum	10,000
Tupelo, Ogechee	1,000
Virginia Pine	29,900
Virginia Pine, Christmas	30,000
Walnut, Black	8,00
White Pine	100,000
Witch Hazel	500
Yellow Poplar	13,000
Total Bareroot	8,292,910
Creech Greenhouse Containerized Seedlings	
Longleaf Pine	237,800
Atlantic White Cedar, cuttings	3,000
Carolina Sapphire	500
Clemson Greenspire	500
Loblolly	9,000
Virginia pine, Christmas tree mix	6,000
Leyland Cypress	20,000
Total Containerized	270,800

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, and 94% in 2001. A new survey was initiated in the fall of 2004 to update BMP compliance. Two hundred sites were located and inspected for compliance with BMPs relating to timber harvesting throughout the state, and compliance with BMPs was 98%. Site preparation compliance has been measured three times. Compliance with BMPs related to site preparation was 86.4% in 1996, 98% in 1999, and 96% in 2003.

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, 53 BMP meetings were held across the state for forest landowner groups, government agencies, and professional organizations. A total of 2,138 people attended these meetings. Included in these meetings were three Timber Operations Professional (TOP) workshops, five TOP Refresher workshops, and five TOP SMZ workshops, and one TOP Harvest Preparation workshop, which reached 370 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 404 courtesy exams. Of the 404 sites, 399 (98.7%) 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 14 site visits to assist landowners and foresters with endangered species identification and information and presented information regarding endangered species to 5 groups, reaching 83 college students, forest landowners, foresters, loggers, and the public.

EDUCATION AND INFORMATION TECHNOLOGY

INFORMATION TECHNOLOGY/COMMUNICATIONS/AND DISPATCH

INFORMATION TECHNOLOGY

The Information Technology group is responsible directly and indirectly for the maintenance and support of the agency's wide area network, 10 Windows NT Servers, 7 Windows Server 2003 Servers, over 150 computer users, software applications and implementation of various initiatives to support agency operations and programs. The migration from Windows NT 4.0 operating systems and upgrading to Microsoft Office 2003 continued in FY2005. As new hardware is purchased, emphasis will be placed on replacing or upgrading computers connected to the agency's network running this unsupported operating system.

In support of a new computer aided dispatch system, the agency's wide area network to the regional dispatch centers and administrative offices was upgraded from 256Kbs point-to-point T1 connections to 2.7Mbs ATM connections. This upgrade replaced equipment and data circuits installed in 1996. Servers and computers supporting this mission critical operation were replaced and upgraded to Windows XP or Server 2003 operating systems. These upgrades will serve as the backbone for the agency's migration away from Windows NT domain.

The agency's computer addressing scheme was upgraded from a public IP address range, that the State no longer had rights to, to a State government private IP addressing range. This new addressing scheme allowed the agency to expand the number of attached network devices (computers, VoIP phones, radio consoles, printers etc.) at the regional offices and dispatch centers from 27 to 254. This new address scheme should provide for future growth due to changes in technology that require IP addresses.

GIS

A GIS analyst was hired to implement projects to support National Fire Plan grant activities related to wildfire risk assessment, planning, response, and hazard fuels treatment. This position concentrated on efforts during the first part of the fiscal year to implement and collect data to improve the predictive capability of a smoke model developed by Dr. Gary Achtemeier of the University of Georgia for residual smoke impact on wildland-urban interface areas in South Carolina. An ArcGIS module was developed in-house that automated the steps involved to generate smoke predictions.

In conjunction with a new computer aided dispatch system being installed by the agency, the GIS analyst assisted in evaluating, obtaining or developing map layers to be utilized by that system. Of major emphasis was the evaluation of the usefulness of a 911 street addressing layer available from the State Budget and Control Board's Office of Research and Statistics and commercially available data.

A two day course on ArcGIS was developed and held at USC's Department of Geography GIS Lab. Twenty-six agency foresters attended to learn the capabilities of ArcGIS and how to apply it to their daily work. A step-by-step manual was developed so attendees could easily repeat the skills learned after the course.

COMMUNICATION TECHNOLOGY

Radio and telecommunications operations were centralized in FY2004 to provide statewide support with a reduced staff due to retirements and unfilled vacancies as a result of budget cuts. This reorganization would also be beneficial to the development of a cohesive long range plan as the agency begins to update its two-way radio system to narrowband technology and considers the replacement of 10+ year old telecommunication equipment at the regional dispatch centers and administrative offices.

In an effort to make the agency's VHF radio communications system more reliable during severe weather events that can cause prolonged power outages, standby electric generators were purchased for thirteen, critical, remote communications and radio repeater sites. Installation was completed in FY2005 at the following repeater or control sites: Vance, Neece, Silverstreet, Long Mountain, Glassy Mountain, Spartanburg, Leslie, McBee, Liberty Hill and Catchall. The remaining generators will at Talatha, Corbin Mountain and Johnston once security clearances or other issues are resolved for those sites.

DISPATCH

A Request for Proposals (RFP) for a new and enhanced computer-aided dispatch system was released in FY 2003 to replace a system developed in the mid 90s. A vendor was selected and a contract awarded to a company that specializes in 9-1-1 dispatching systems in November, 2003. Work began on the system upgrade in January, 2004. Installation and training on the new system was completed in June, 2005 and the agency went "live" with the new system on July 1, 2005. Federal funds from the National Fire Plan and other grants were used to fund this new system.

Synergem Emergency Services was awarded the contract, partnering with Logistic Systems, Inc. to develop the new system around their FirstCADS dispatching software. Utilizing a commercial, "off-the-shelf" 911 dispatching software incorporates many of the features and functionality for dispatching emergency resources. The new software will determine the closest available unit based on road mileage and travel speed, automate notification of units of incidents, alert dispatchers when contact or status changes with units exceed certain timeframes, allow for utilization of automated vehicle location (AVL) technology, and automate the compliance issues with smoke management regulations on forestry, wildlife and agricultural burning notifications.

CREATIVE SERVICES

The Creative Services Department provides audio-visual and print material for use by schools, Forestry Commission personnel and the public for both educational and training purposes. The department oversees compliance with Title VI and is the agency's contact for forestry outreach. Creative Services is responsible for keeping lines of communications open with Forestry Commission external and internal audiences. Currently the department accomplishes this using a weekly electronic news bulletin and a frequently updated website.

The National Fire Plan

The Forestry Commission contracted with Interactive Training Media (ITM), to adapt a Firewise interactive program the company had designed for the state of Florida. Creative Services worked closely with ITM to conform the content to South Carolina circumstances, to supply South Carolina images for the program, to proof and beta test both the *Living on the Edge* interactive CD, for community workshops, and *How to Have a Firewise Home*, an information source for homeowners.

As part of the contract, ITM planned, publicized and conducted community leader and homeowner Firewise workshops in high risk communities. Forestry Commission personnel served as facilitators.

Promotional WUI items were designed as giveaways at workshops and exhibits for children and adults: rain gauges, plastic drink cups, awareness bracelets, and erasers. Magnets listing all county burning notification numbers were produced primarily for distribution by law enforcement officers.

A firewise landscaping exhibit was produced for the SC Landscapers Association conference.

A template for field personnel to use in preparing Firewise community plans was produced.

Prevention Team Support

Creative Services designed and produced a brochure, small poster, and table tent about safe debris burning, for distribution by S.C. prevention teams. A Spanish language translation of the brochure was produced with the help of the Director of Hispanic Outreach Programs at St. Peter's Catholic Church in Columbia.

The SC Forestry Association Governor's Forestry Summit

The SCFC prepared a new exhibit, *Forestry is Good Business*, and a Powerpoint presentation for the State Forester to use at this event.

Web

The agency's website was completely redesigned, with a new DHTML menu. New sections were added and accessibility further improved.

Publications

The State of South Carolina's Forests was produced as an overview of SCFC programs and to highlight findings of the newly released FIA report. Four slip-in cards describe FIA findings for the state of SC and for 3 targeted economic development areas of the state.

The booklet *Smoke Management Guidelines* was revised and reprinted

Outreach

A November workshop for farmers and landowners was held for a three-county area in Orangeburg, SC. About sixty attended. Participants in the first round of statewide workshops had indicated that the subjects that interested them most for subsequent workshops were wills/heir property and timber theft & fraud. Forestry Commission Chief Law Enforcement Investigator Mike Maggard spoke on the latter subject. The SCFC Outreach Coordinator worked with NRCS and DNR to edit and produce copies of *Why You Need a Will*, a publication assembled by the Penn Center and funded by the USDA Forest Service.

Exhibits and Events

National Hunting and Fishing Day
The Department of Agriculture Centennial
S.C. Landscapers Association
Governor's Forestry Summit
Camp Kemo

The Piedmont Forestry Center

Construction was completed on the conference, training, and education facility, formerly a nursery packing shed. A large conference room can seat 100, a smaller room holds about 25. There is a spacious lobby and an industrial-size kitchen. Audio visual equipment is available as well as conference furniture for both meeting rooms. An open house was held in conjunction with September's Wood Magic Forest Fair.

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, which ends December 31, 2005. The Coordinator also represents the Commission on the Coalition for Natural Resource Education and various other committees involved with environmental education throughout the state.

Last fiscal year (July '04 to June '05) SC PLT conducted 18 professional development workshops throughout the state to train 309 teachers. In addition, PLT participated in 2 exhibits and/or presentations at various functions across the state to reach approximately 1200 participants. SC PLT received two grants with the national PLT office to conduct workshops in "Energy & Society", a new PLT curriculum that teaches the basics of energy, energy conservation, and renewable vs. non-renewable energy alternatives (including biomass) and the "Burning Issues" interactive CD curriculum. This program was sponsored by BLM and uses technology for students to learn ecological principals related to fire ecology, the importance of prescribed fire, and how to maintain a fire safe home in the wildland/urban interface. This year SC PLT signed an MOU with the State Department of Education, the S.C. Forestry Foundation, the S.C. Forestry Commission and the National PLT organization. This 5-year MOU will allow educators who participate in a PLT workshop to qualify for teacher re-certification credits.

The Forestry Commission 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. Russell Hubright, Forest Director for Harbison State Forest served on the steering committee, establishing 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 Wood Magic Forest Fair was again successful this year. This event was held at Harbison State Forest in Columbia, the Piedmont Forestry Center in Oconee County, and Sewee Visitor's Center in Charleston County. The program involved approximately 1810 students and 282 teachers and adult chaperones. One hundred thirty school applications were received to attend the Wood Magic Forest Fair program this year. Demand continues to exceed the capacity of this popular education program. The South Carolina Forestry Commission, S. C. Forestry Association and the USDA Forest Service jointly sponsor SC's Wood Magic Forest Fair program, with the Forestry Commission serving as the key partner for logistics and recruitment. Over 43 other organizations, forest industry, and state agencies also contributed to the success of this award-winning 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 Low Country area in June of this year. This successful tour provided 28 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. Many 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 11 programs were conducted for 635 students and 74 teachers and adults from Oconee County schools at the Piedmont Forestry Center. This was the second year for this program. 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 Cooper in Clarendon County.

Environmental Education at Harbison State Forest

Harbison State 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 staff and other SCFC employees associated with Harbison conducted 16 programs this past year, serving approximately 1338 participants. Sixteen programs were conducted at Harbison, with 867 participants, and 3 programs were conducted outside of Harbison by the staff, serving approximately 237 participants. This figure does not include the Wood Magic Forest Fair held at Harbison in October, where 593 children and 102 adults participated.

Harbison continues to offer support to the Scouting community. Seven Cub Scout programs were held where approximately 65 young scouts earned their Forestry pins, accompanied by 25 adult leaders. The Boy Scout Forestry Merit Badge Program offered by Harbison staff in the fall had 65 scouts and 12 adult leaders participate to earn this scouting badge.

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. The Center was used 25 days in the last fiscal year to conduct environmental education events, with approximately 830 people attending these events. These include programs directly or jointly sponsored by the SCFC such as Project Learning Tree educator and facilitator workshops, the Wood Magic Forest Fair, the S.C. Teacher's Tour, the State Department of Education's SC MAPS program for teachers, the Coalition for Natural Resource Education meetings, Environmental Education Association of South Carolina annual cooperators meeting, and the Soil and Water Conservation Districts training. Twenty-six other events and meetings related to forestry were also held at no charge at the Harbison Environmental Education Center and were attended by approximately 590 participants. The Harbison Environmental Education Center remains an important hub for the Forestry Commission's education mission as well as other cooperative environmental educational entities.

ADMINISTRATION

South Carolina Forestry Commission Financial Statement Fiscal Year 2004 - 1005

REVENUES

State Appropriations			12,530,618
Federal Grants			5,554,162
<u>Earmarked Funds</u>			
Hunting & Fishing License			91,241
Refund of Prior Year Expenditure			21,495
Burning Assistance Fee			81,542
Fire Lane Fee			121,440
Timber Marking Fee			13,042
Training Conf - Registr Fee			2,565
User Fee - State Park & Forest			98,109
Miscellaneous Fee - Field Trial			1,460
Construction of Water Bar			763
Stand By for Prescribed Burning			2,513
Sale of Seedlings			429,074
Sale of Timber			1,742,894
Conviction Surcharge			19,352
Rent - Residence			42,147
Rent - Farm Land			188,736
Rent - State Owned Property			78,793
Rent - Equipment			2,720
Contributions & Donations			2,065
Insurance Claims			16,133
Sale of Services			3,400
Sale of Publications			15
Sale of Materials & Supplies			0
Sale of Recycling Material			0
Commission-Vending Machines			0
Forest Product Assessment			1,201,055
Sale of Assets			196,104
Dept of Revenue (Maybank Funds)			1,006,311.00
Total Earmarked			\$5,362,968
Total Revenue			\$23,447,748
<u>EXPENDITURES</u>			
State			12,261,266
Federal			5,531,882
Earmarked			5,716,613
Permanent Improvements			190,732
Total Expenditures			\$23,700,492
EXCESS OF REVENUE O/(U) EXPENDITURES			(\$252,744)
Deficit was covered with previous year carry forward funds			

HUMAN RESOURCES MANAGEMENT

The Human Resources Management Section administers the following programs for the SCFC:

- Employee Relations, to include Progressive Discipline, EPMS, and Grievances and Appeals
- Classification and Compensation, to include performance increases and bonuses
- Job Announcement Postings
- Recruitment
- Employee Benefits, to include Health, Dental, Life, and Long Term Disability Insurance, Employee Wellness, Employee Innovation System and Tuition Assistance
- Leave, to include Annual, Sick, Leave Without Pay, Family Medical Leave Act, Leave Transfer Program
- Affirmative Action
- Service Awards
- Retirement, to include counseling and assistance with the process for both service and disability applications
- Personnel Records and Files Maintenance
- Commercial Drivers' License Drug and Alcohol Testing
- Overtime and Fair Labor Standards Act
- Reduction in Force
- Americans with Disabilities Act

TRAINING AND SAFETY

During fiscal year 2004-2005, 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 179 training sessions with 1782 employees attending during fiscal year 2004-2005 (some employees attended multiple sessions). These sessions are listed by major subject area below.

Category	Number of Sessions	Number of Employees Attending
Fire Management	40	458
Forest Management	17	223
Equipment Maintenance	10	96
Safety	40	497
Law Enforcement	35	160
Administration	37	348
Total	179	1782

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 04-05, 8 fire management training sessions with 134 people attending and 3 Certified Prescribed Fire Manager training sessions with 82 people attending were held.

Other major accomplishments include providing Incident Command Training to the State Law Enforcement Division. 314 Officers received both the I-100 Introduction To The Incident Command System and I-200 Basic Incident Command System Training.

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 2004-2005, 10 safety inspections were made at SCFC facilities by the SCFC Safety Coordinator. Safety violations were noted and

corrected.

During fiscal year 2004-2005, there were 21 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, 270 employees participated in the program. The program was in its fourth year where the goal was to walk 2 miles in 30 minutes while carrying a 25 pound pack. The Training and Safety Section also gave the physical fitness test to 57 non South Carolina Forestry Commission firefighters to help them become certified under the NWCG red card system.

OFFICE OF THE STATE FORESTER

INFORMATION OFFICER

The Information Officer is charged with generating news media coverage of SCFC activities and responding to inquiries from the news media. Throughout FY 05, the Information Officer also served as adjutant to the Chief Law Enforcement Officer.

During the year, the Information Officer wrote and distributed 52 press releases. Some releases were for statewide distribution; others covered specific local events and were released only to the appropriate local media. In addition, two op-ed pieces were distributed to newspapers and three articles were released to special interest publications.

The Information Officer continued to compile historical information and develop an archives for the agency. As a result, several historical pages were added to the Forestry Commission's web site this year.

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.

During this fiscal year an audit was performed of Workers' Compensation. Follow-up audits were not applicable for this fiscal year. 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: periodic inventories of shop supplies at regional shop locations, fiscal year-end 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 such as State Fleet Management and the Materials Management Office. 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 2004-2005, the Internal Auditor served on the Board of Directors for the South Carolina State Internal Auditors Association as President and in an Ex-Officio role as well. She also served as team leader in performing a peer review for the Internal Audit Department of the Department of Transportation.

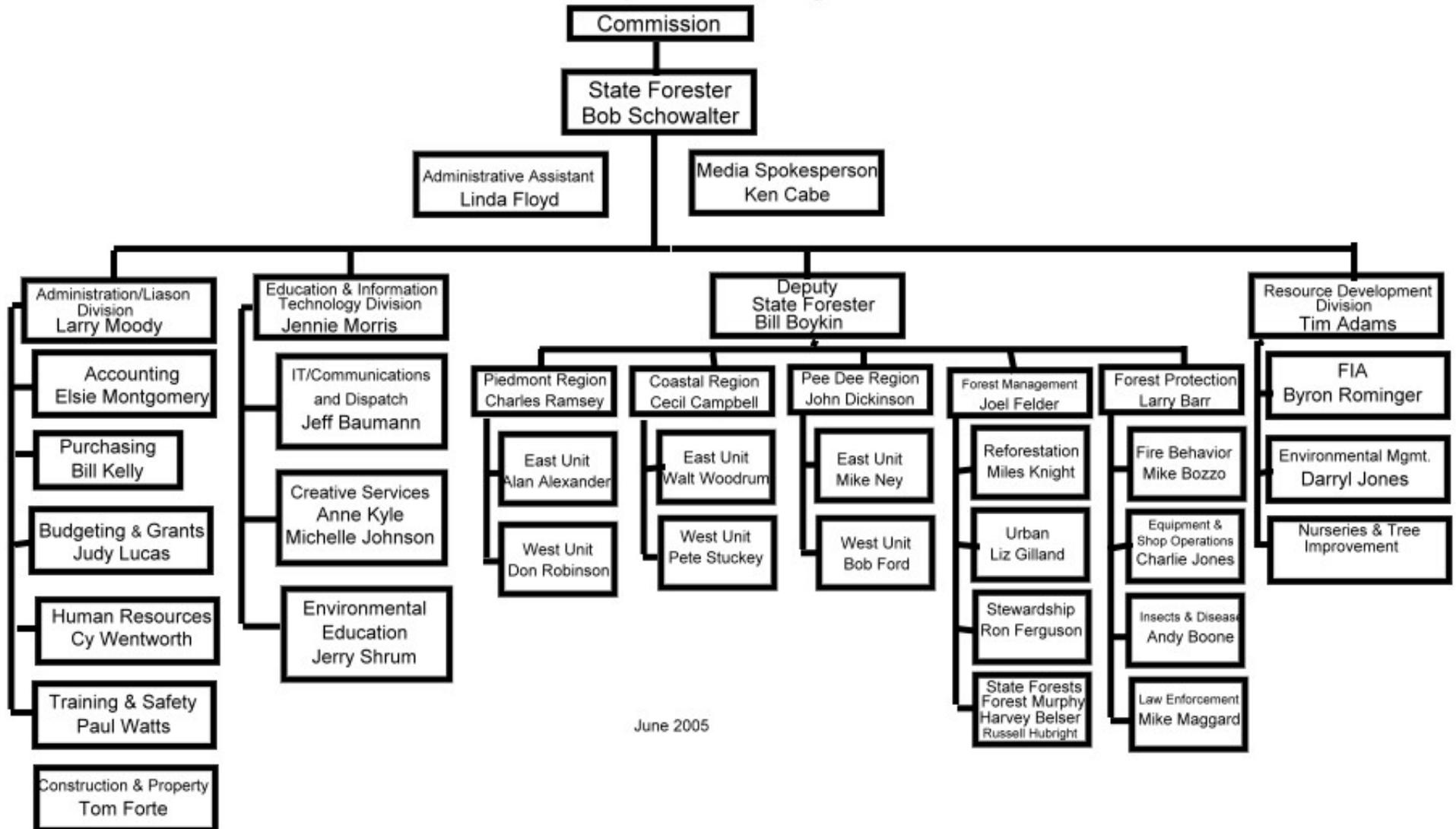
RECORDS MANAGEMENT

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 2004-2005, a total of 125 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.

During Fiscal Year 2004-2005, the Records Officer served on the Awards Committee for the South Carolina Public Records Association. She was also elected as the Recorder for the Midstate Region for calendar years 2005 and 2006.

South Carolina Forestry Commission - Organizational Chart



June 2005