

# South Carolina Department of Natural Resources



## FY 2011-12 Annual Accountability Report

Accountability Report Transmittal Form

Agency Name: SC Department of Natural Resources

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**SECTION I**  
**EXECUTIVE SUMMARY**  
**2011/2012 ANNUAL ACCOUNTABILITY REPORT**  
**SOUTH CAROLINA DEPARTMENT OF NATURAL RESOURCES**

**(1) The DNR’s stated purpose, mission, vision & values**

The Department of Natural Resources’ stated purpose is to serve as the principal advocate for, and steward of, South Carolina’s natural resources. During FY 2011-12, the Department of Natural Resources (“the DNR”, the “Agency”) operated its programs based upon the DNR Board’s Strategic Plan entitled *South Carolina Department of Natural Resources Vision for the Future*. The DNR accomplishes its mission based upon an agenda that encompasses these values:

1. **Teamwork** – The Agency will accomplish its mission and achieve its vision through goal-focused, cooperative efforts that rely on effective internal and external communication and partnering;
2. **Integrity** – The Agency will lead by example, ensuring that its standards are high, and its actions are fair, accountable, and above reproach;
3. **Dedication** – The Agency will maintain a steadfast commitment to the state’s natural resources and its mission;
4. **Excellence** – The Agency will always do its best, and continuously strive to improve its processes, activities, policies, operations, and products; and,
5. **Service** – The Agency will provide quality service that meets the needs and exceeds the expectations of the public and its employees.

**(2) The DNR’s major achievements from prior year**

The DNR implemented the Strategic Plan’s primary goals and strategies to accomplish significant results and achievements over the past year. By Agency Division, major achievements during FY 2011-12 included the following:

***Wildlife & Freshwater Fisheries (WFF):***

<b>WFF FY 2010-11 Budget Expenditures (GF)</b>	<b>WFF FY 2011-12 Budget Expenditures (GF)</b>	<b>% Increase / (Decrease)</b>
\$0	\$8,338	100.0%

- Provided quality public outdoor recreation opportunities on more than 1.0 million acres of land in the Wildlife Management Area (WMA) program.
- Through the Draw Hunt Program, conducted more than 198 separate hunts for deer, turkey, waterfowl, and quail with 3,446 participants.
- Provided special hunting opportunities for over 1,087 youth and over 192 mobility impaired sportsman.
- Significantly improved the habitats of all wildlife species on many of the Heritage Preserves.
- Researched, monitored, and surveyed a broad range of native wildlife species, including game, nongame, and endangered vertebrates.
- Acquired additional property for habitat protection and public recreation in Laurens County.

- Surveyed and inventoried approximately 195 lakes, reservoirs, rivers, and streams.
- Produced over 6.3 million fish of 15 different species for stocking in public waters.
- Provided passage of American shad, blueback herring, and other anadromous species at the Pinopolis Dam and at the St. Stephens Fish Lift.

**Marine Resources (MRD):**

<b>MR FY 2010-11 Budget Expenditures (GF)</b>	<b>MR FY 2011-12 Budget Expenditures (GF)</b>	<b>% Increase / (Decrease)</b>
\$1,102,133	\$1,046,134	(5.1%)

- Planted 49,281 bushels of oyster shell and collected 22,307 bushels of oyster shell for recycling.
- Stocked fish into multiple South Carolina estuaries through finfish research program: 280,104 1-inch red drum, 125,000 2-inch and 22,500 8-inch striped bass, and 300,000 2-inch spotted sea trout.
- Completed fifteen artificial reef construction projects on 14 sites, including the addition of 46 armored personnel carriers, 98 concrete culvert pipes, 103 concrete cones, 6 reef balls, 10 concrete catch basins, 114 concrete blocks (14 of which were 1-ton each), and other miscellaneous concrete material.
- Began construction of the new Jasper-Knowles Island fishing pier.
- Conducted Marine Resource-based educational programs for 2,556 youth/students and 1,295 adults, free of charge.
- Partnered with private business and government to protect water quality by providing access to pump-out facilities.
- Distributed 208,000 copies of outreach materials to 110 coastal vendors.
- Continued to make good progress in a large-scale shellfish restoration program in Charleston Harbor in cooperation with the State Ports Authority.
- Implemented plans for renovations to the basement floor of the Marshlands House at Fort Johnson.
- Made significant progress in developing plans and implementing capital improvements to the Eltzroth Administration Building at Fort Johnson.

**Land, Water & Conservation (LWC):**

<b>LWC FY 2010-11 Budget Expenditures (GF)</b>	<b>LWC FY 2011-12 Budget Expenditures (GF)</b>	<b>% Increase / (Decrease)</b>
\$1,631,164	\$1,599,916	(1.9%)

- Controlled costs for the Agency by utilizing more efficient survey and treatment schedules along with increased efficacy of newer herbicides.
- Provided Phragmites control - which is a key component of habitat restoration for waterfowl and other species - to 390 acres.
- Conducted aquatic plant management operations on 27 different management sites at a cost of \$201,844 using local and State Water Recreation Resource funds. Field operation expenditures for the DNR decreased by 26% from FY 2010-11, while acres controlled decreased to 1,228.48 (a 40% reduction). More efficient herbicides, better coordination among Agency staff, better communication between agencies, and early detection rapid

response protocols all combined to allow for better results. In all, 47% of total costs for control were absorbed by local entities, with 46% of the work funded by State Water Recreation Resource funds, and 7% funded by Federal grant money.

- Completed 3,020 acres of aquatic plant management on Santee Cooper lakes, at a cost of \$976,535 (with no Agency cost share funding). Acreage increases were based primarily on the expansion of a new highly invasive species, *Nymphoides cristata* (crested floating heart).
- Controlled the spread of the highly invasive Island Apple Snail through cooperative efforts. Population of this species has continued to decline.
- Provided technical assistance to the public in conjunction with the 46 Conservation Districts and the USDA-Natural Resources Conservation Service.
- Provided financial and staff assistance to the 46 Conservation Districts.
- Mapped approximately 434 square miles with priority on the Coastal Zone and the Savannah River Basin.
- Measured SET stations along the coast to identify sea-level change influenced by vertical land motion.
- Convened the SC Drought Response Committee eight times to review conditions, issue declarations, and recommend mitigation actions in response to the record drought conditions in the Savannah River Basin and the Upstate of SC.
- Provided 41 presentations to various organizations and participated in 46 conference calls pertaining to state climatology issues.
- Received 189 requests to join the Weather Alert email notification network. The network now provides tropical advisories and severe weather notification to 1,302 subscribers.
- Trained over 110 community officials and professionals, provided technical assistance to 221 community leaders and citizens, and delivered information with over 2,700 website requests regarding the Flood Mitigation program.
- Conducted 67 comprehensive environmental reviews.
- Monitored groundwater levels continuously at 120 wells, saltwater intrusion at five wells along the coast, and pond levels at one Carolina Bay site.
- Added 606 well records to the Coastal Plain well database. Added 11 well records to the Piedmont well database, with 117 well-site recommendations made in the Piedmont.
- Added 21 springs to the database and initiated a project to collect additional data and develop an interactive map for SC springs.
- Established Geophysical logs for 10 more wells and updated the database of digital geophysical logs from 500 water wells (which is now available online from the Hydrology webpage).

***Law Enforcement (LE):***

<b>LE FY 2010-11 Budget Expenditures (GF)</b>	<b>LE FY 2011-12 Budget Expenditures (GF)</b>	<b>% Increase / (Decrease)</b>
\$6,253,730	\$6,161,591	(1.5%)

- Continued working toward the development of a fully integrated computer platform and other technological enhancements for law enforcement operations. Toward this end, the Division is converting the law enforcement records system to an Oracle platform; enhancing law enforcement education programs already on the Oracle platform; implementing a new computer aided dispatch program for the delivery of calls for service; and acquiring 18 mobile data terminals for use in port security operations.
- Fully implemented the newly designed warning ticket issued by officers for violations of fish, game, and boating laws. The new ticket is able to accommodate multiple violations on one document and increases officer

efficiency by reducing offender check times. As such, the ticket enhances public relations by making these checks more user-friendly.

- Officially entered the Interstate Wildlife Violators Compact through formal application and acceptance for membership. The compact allows S.C. residents and nonresidents to be treated equally for purposes of wildlife enforcement and provides recognition of hunting and fishing suspensions by member states.
- Continued cooperative efforts with the SC Department of Public Safety on BUI and DUI enforcement with the “100 Deadliest Days of Summer” campaign. Stepped up enforcement efforts and a public information blitz were the focus of this successful campaign which begins on Memorial Day and runs throughout the summer.
- Continued the Joint Enforcement Agreement contract with the National Oceanic and Atmospheric Administration and the National Marine Fisheries to work federal coastal fisheries enforcement, providing revenue to the state in return for enforcement services for the federal agencies.
- Continued work with the United States Coast Guard Auxiliary through the “Boating Safety Partnership”, a joint initiative designed to provide efficient delivery of boating safety classes and boating safety information to students and boaters in South Carolina.
- Continued outreach programs as part of an attempt to reach young sportsmen across the state. Three of the most popular programs in this arena are National Archery in the Schools, Take One Make One, and, Scholastic Clay Targets. These programs continue to grow in popularity.

***Outreach & Support Services (OSS):***

<b>OSS FY 2010-11 Budget Expenditures (GF)</b>	<b>OSS FY 2011-12 Budget Expenditures (GF)</b>	<b>% Increase / (Decrease)</b>
\$2,147,768	\$2,115,841	(1.5%)

- Continued the Agency’s public awareness campaign to inform the public about the services the DNR provides South Carolinians.
- Renewed the registrations of 134,297 watercraft. This was accomplished through three different renewing methodologies: 41,794 by mail; 78,445 by walk-in; and, 14,058 by the internet.
- Oversaw the purchasing of 947,127 hunting and fishing licenses, representing a value of \$14,716,693.50.
- Reached out to 33,661 people through Aquatic Education courses, the Jocassee Gorges course, Camp Wildwood, and, the Palmetto Sportsman’s Classic.
- Developed an online database housed on the DNR's website which allows the public to view lands available in South Carolina for fishing, hunting, wildlife watching, hiking, and for other outdoor activities. (This online database can be queried by public land location, outdoor activities available, hours of operation, boat ramp availability, etc.)
- Distributed 37,300 multi-purpose mailers to customers allowing them to purchase licenses, permits, and tags through the mail or the Internet.
- Distributed 119,153 postcards to Agency customers that had purchased hunting or fishing licenses over the past two years.
- Completed 7 projects related to boating access. These projects included repairs to existing facilities, complete renovations to existing facilities, as well as new construction of ramps and docks. The total cost of all of these projects was \$535,372.
- Worked with various Divisions within the Agency on facility repairs and construction including the selection of an architect and contractor for the repairs of the Blake House at Santee Coastal Reserve; the selection of an architect for the repairs of the Eltzroth Administration Building at Fort Johnson; and, the selection of an architect for the repairs and final restoration work at the Marshlands House.

- Reinstated the employee Reward and Recognition program.
- Reviewed and updated an Agency-wide salary study.
- Adjusted the law enforcement career path by splitting one scheduled increase into two smaller increases.
- Responded to the American Fisheries Association salary survey for marine fisheries and freshwater fisheries.
- Completed a draft career path for Wildlife Biologists and Natural Resources Technicians.
- Revised and distributed the Employee Performance Management System (EPMS) policy and corresponding forms.
- Revised and distributed the Reduction in Force (RIF) policy.
- Answered more than 5,600 requests for help desk, web (Internet and Intranet), mainframe programming, and spatial analysis support.
- Converted the Agency antivirus software to more comprehensive Endpoint Protection Suite software to provide enhanced file and network security and virus detection and removal.
- Downloaded the latest version of client backup systems to provide data and file recovery capabilities for Agency servers and client workstations.
- Initiated conversion of client workstations' operating system from Windows XP to Windows 7.
- Provided network installation and configuration support for remodeling projects at three Agency facilities including Santee Coastal Preserve.
- Installed wireless access points in the DNR regional offices.
- Configured i-Pads and various staff Smartphone devices for Law Enforcement and other staff for use with Agency email and other access services.
- Built server and installed and configured database to support Law Enforcement Computer-Aided Dispatch (CAD) and Records Management System.
- Worked with Charleston County on a joint law enforcement project for an integrated harbor security and dispatch system.
- Continued to work with South Carolina Interactive to develop a comprehensive Oracle database schema to support the licensing, boat titling and registration, and permitting system, currently under development to replace the existing mainframe application.
- Developed a quality assurance/quality control program to identify incomplete or inaccurate Agency licensing and boat titling customer data records and provide tools to administrative staff to resolve customer record conflicts.
- Initiated development of licensing and titling administrative tools to process daily sales transactions, provide for customer information management, and develop daily, monthly and annual reports of license sales and customer demographics.
- Continued to provide, at no cost to other state and federal agencies, local governments, and the public, non-sensitive spatial data maintained at the DNR through the SC DNR GIS Data Clearinghouse.
- Continued the integration of Agency natural resources, land management, and administrative data into the Oracle database. Much of this data resides in several hundred disparate PC-based and mainframe databases but is being converted to a comprehensive database management system.
- Completed integrated regional marine fisheries database management system for South Carolina, North Carolina, Georgia and Florida to support SEAMAP program.
- Continued the acquisition and processing of high-resolution elevation data using Light Detection and Ranging (LiDAR) technologies for South Carolina. Since 2007, LiDAR data for 43 of the 46 counties of the state have been completed or are in development. Two of the three remaining counties are scheduled for acquisition in January-February 2013. This data provides elevation data sets with 12 to 15 centimeter or better vertical accuracy whereas previous data developed in the 1970s was only accurate to 5 to 7 meters.

- Added numerous enhancements and updates to the DNR spatial data catalog including new property boundaries and land management facilities, updated threatened and endangered species, LiDAR elevation and digital elevation models/terrains, wetlands, soils, roads, and other natural resource features.
- Initiated conversion of remaining mainframe financial and law enforcement applications to Oracle database programs using the .NET programming framework. These applications include returned checks, telephone billing, gasoline card billing, and other programs unique to the DNR that are not provided in SCEIS and the Law Enforcement violations and suspension system.
- Developed lottery process to select customers from pool of applicants for alligator, bear, dove, and other hunt draws that includes previous customer preference points and geographic area priorities into the lottery process. This system will be integrated with the new licensing system being developed by South Carolina Interactive for the Agency.
- Continued to expand and enhance the electronic document management system applications including the DNR land inventory and property management, law enforcement hunter-boater education, violations and suspensions and case management, licensing and titling, the Agency's photographic repository, and the hydrologic and geologic well records.
- Developed cartographic products and digital maps for a variety of brochures, pamphlets, publications, and on-line mapping services including the DNR Law Enforcement, SC Wildlife Magazine, and the 2012-13 Wildlife Management Area maps for both hardcopy printing and on-line access.
- Continued to work with USGS Liaison to South Carolina to coordinate the SC LiDAR Consortium to create data acquisition and processing standards for developing high resolution elevation data for the state. Also continued to work with State Engineer's Office on the implementation of the 5 year contract for LiDAR acquisition, processing, and quality assurance/quality control.
- GIS Coordinator continued to work with state agencies and county and local governments to develop data sharing agreements, create and maintain commonly used spatial data layers, and establish standards for interagency data development and exchange.
- Continue to work with DSIT on long-term disaster recovery and business continuity options for the DNR and other state agencies in the event of natural or man-made disasters resulting in catastrophic interruption of IT services.
- Continued to update and refine the Agency's web site to include current information, improved navigation, increased functionality including improved access for disabled citizens, and increased standardization of web site "look and feel."
- Initiated redesign of the layout and navigation of the DNR on-line rules and regulations by game species rather than geographic area. The rules and regulations for deer have been completed and other species are nearing completion.
- Initiated the development of a mobile web site to support iPad and Smartphones for citizens requiring mobile access. For now, the web site will support information dissemination but the design is being built to include applications that require interactive communications with the Agency.
- Continued to use the Internet and web-based technologies to keep citizens informed of Agency issues and to provide information of a public concern or of a scientific and technical nature to its various constituencies. The number of unique users of the DNR web site has more than tripled since 2002 and continues to increase annually.



### **(3) The DNR's key strategic goals for the present and future years**

The DNR's "Vision for the Future" Strategic Plan was developed in FY 2005-06 and the document is in the process of being fully deployed. At the same time, with the declining state budget and reduced funding streams resulting from a declining national economy, the implementation of the DNR's strategic goals is proving to be a challenge. For instance, the Agency is learning firsthand the particular struggles associated with maintaining a dedicated, knowledgeable, and professional workforce during a severe economic downturn. That this workforce must be appropriately maintained cannot be underemphasized since it is these employees that make it possible to achieve the strategic goals set forth.

Acknowledging this, the implementation of specific action items - which fall under the general action plan/initiatives as shown below - will be monitored by the Divisions' key performance measures that have been or are currently in the process of being reassessed and updated.

#### **A. Enhance the effectiveness of the Agency in addressing natural resource issues.**

1. Broaden strategies to address the impacts of population growth, habitat loss, environmental alterations, overuse and other challenges faced in protecting, enhancing, and managing diverse natural resources;
2. More effectively develop, coordinate, and integrate resource-specific conservation and management plans, research, and policies within the DNR; and,
3. Expand sound application of science for natural resource management and decision-making.

#### **B. Improve the general operations of the DNR.**

1. Develop and implement comprehensive operational plans that clearly connect all Agency activities to specific goals and annual accountability reports;
2. Fully develop the Agency's regional hub system;
3. Continue to develop and maintain modern, well-integrated information systems, and technology throughout the Agency;
4. Enhance and maintain effective communications throughout all levels of the DNR;
5. Maximize efficiency of internal operations and business procedures; and,
6. Aggressively pursue increases in revenue, state, and federal funding, and identify new funding sources to support accomplishment of the Agency's mission.

#### **C. Create an Agency environment that supports a dedicated, professional workforce.**

1. Implement comprehensive workforce planning that is consistent with Agency priorities;
2. Expand consistent, Agency-wide employee training, retention, and compensation efforts; and
3. Implement initiatives that improve employee morale and teamwork, instill a sense of pride in the Agency, and emphasize the importance of its mission.

#### **D. Enhance public trust and confidence in the DNR.**

1. Foster more effective communications, outreach, and partnering with the public and State Legislature;
2. Develop strategies that address divergent public opinion and expectations concerning issues related to accessibility, use, and protection of natural resources;
3. Optimize the DNR's customer service through regular monitoring of constituent needs, public opinion, and Agency performance; and,
4. Enhance natural resource education to provide the public with the knowledge necessary to make informed natural resource decisions.

Of the above initiatives, the Agency will be particularly cognizant of improving its general operations during FY 2012-13 by preparing for the removal of the legacy system (CATT) and transitioning to a new system; implementing an electronic Employee Performance Management System (EPMS) form;

reviewing and updating selected Agency policies; and, continuing to monitor compensatory time to ensure that hours are recorded correctly in SCEIS.

Similarly, the DNR will support its dedicated and professional workforce through FY 2012-13 by adjusting compensation for selected professions; by identifying funding sources and planning for the implementation of career paths for Agency Technicians and Biologists; and, when funds are available, by preparing to implement salary increases and bonuses in order to recognize exceptional performance.

Finally, the Agency will continue to work with and inform the General Assembly and the Governor's Office of needs regarding Conservation (Law Enforcement) Officers. For instance, an increasing number of registered boats strain existing law enforcement educational staff and officers in the field. As with the Conservation Officers, the Agency will continue to work with and inform the General Assembly and the Governor's Office of needs regarding the assessment and monitoring of the state's water resources.

#### (4) The DNR's key strategic challenges

- **Continuing economic uncertainty facing South Carolina and the nation, which is impeding the Agency's success in fulfilling its mission and achieving its strategic goals.** This economic uncertainty has resulted in a budget that has severely impeded the Agency's ability to meet objectives established by statute and the DNR Board.
- **Finding new and adequate funding streams to successfully protect and manage the unique natural and cultural resources of South Carolina in a climate of economic uncertainty.** Given the lesser priority status some assign to natural resource concerns, the Agency continues to be at risk for deeper cuts than other agencies. This prioritization concern was most apparent during the last economic downturn as the Agency realized a \$12.8 million (or 41%) reduction in state appropriated funds from July 2001 through June 30, 2004. And, while the DNR made progress after FY 2003-04 toward regaining a portion of the funds lost during this period (though much of the funding received was for critical infrastructure needs from non-recurring sources), the impact of these earlier reductions cannot be minimized. And particularly, when considering the lingering economic stagnation.
- **Sustaining fisheries through a renewed federal commitment requires enhanced monitoring and management diligence from the Agency.** South Carolina is a member of the Atlantic States Marine Fisheries Commission, which operates under a Congressionally approved federal compact for interstate cooperation on fisheries. The Commission develops and adopts, and the states' implement, fishery management plans to ensure the long-term sustainability of marine fishery resources. These plans contain specific provisions which require monitoring and stewardship by South Carolina and other states. Failure to comply with provisions of Commission-mandated fishery management plans risk the closure of South Carolina fisheries by the US Secretary of Commerce.
- **Replacing or Renewing of Marine In-water Sampling Infrastructure.** Two of the three ocean-going marine vessels are over 29 years old and will require considerable repair in the near future, including replacement of engines. Associated with these vessels is the 40-year old boat slip which is in need of repair due to deteriorating sea walls, docks, lifts, and water/power lines. In addition, half of the Marine Resources Division's 27 outboard boats are 18 years or more old and are in need of repair or replacement. These needs are required to ensure the safety of staff and to accomplish the mission of the Marine Resources Division.
- **Continuing water-related issues that dominate headlines with increasing political attention.** As the water resource planning agency for the state, the DNR is responsible for monitoring and analyzing water resource information and developing state water plans. The ability of the Agency to conduct

these activities has been compromised following recent budget reductions. These reductions could not be coming at a more inappropriate time considering the ongoing issues related to water resources: (1) low lake levels in the Savannah River Basin that has caught the attention of both South Carolina and Georgia residents; (2) recent court decisions that make it more likely that Atlanta will be looking to the Savannah lakes as a primary source of water (3) the state of Georgia's initiation of a multi-year comprehensive state water planning process, (4) the SC General Assembly's consideration of a new Surface Water Withdrawal Permitting Program, and (5) the growing interest among the public to ask the legislature to designate more rivers as State Scenic Rivers.

- **Continuing drought conditions have affected all or part of the state for much of the past 10 years with many environmental and economic impacts such as widespread timber losses from fire and diseases, agricultural disasters, diminished groundwater supplies, and record low lake levels and streamflows.** Notwithstanding the current economic climate, the state needs to be better prepared to monitor, document, and analyze weather conditions in order to provide timely and coordinated responses to drought and other severe weather events such as hurricanes and floods, and to predict future climate change impacts to the state.
- **Increasing population expansion into rural areas that have, in many cases, contributed to a lack of understanding of the Agency's mission and objectives.** Lacking a rural background, many new residents often fail to understand the need for wildlife conservation, game management, and shooting sports. This failure to understand the Agency's mission and objectives could eventually jeopardize the state's quality of life, its economic competitiveness, and the \$30 billion and 230,000 jobs associated with its natural resources.
- **Contending with increased animal/human encounters.** Related to the above, with the increase in development and the influx of people into the state, human interactions with wildlife have risen significantly. This includes bears, alligators, raccoons, etc. With such encounters, many in the public expect the Agency to pick up every animal that invades their "space". In addition, the public expects the Agency to respond and pick up every injured/orphaned animal they find which includes birds, squirrels, bats, seagulls, etc.
- **Declining competitiveness of staff salaries in relation to other similar organizations.** Recent attempts to hire and retain staff in such areas as biology, hydrology, climatology, engineering and law enforcement have shown the Agency to not be competitive in its salary offers. Such a disparity will eventually result in additional losses of existing employees when the economy improves.
- **Living with budget issues that required the Agency's leadership to hold many key positions vacant for extended periods.** As a result of these issues, the Agency is in the process of slowly and conservatively rebuilding its staff levels to ensure that key programmatic areas are adequately managed.
- **Continuing to address the challenges associated with minority recruitment.** Given the often limited exposure minorities have traditionally had to Agency activities, the DNR implemented a minority intern program that increased the Agency's visibility at traditional minority recruiting events. A casualty of recent budget reductions, the Agency looks forward to reinstating the intern program as funds become available.

(5) **How the DNR uses the accountability report to improve organizational performance**

The accountability report is utilized by the DNR to monitor the Agency's progress in accomplishing its Strategic Plan goals, measuring organizational performance, addressing areas in need of improvement, and setting improvement initiatives in order to better focus on primary core missions.

**SECTION II  
ORGANIZATIONAL PROFILE  
2011/2012 ANNUAL ACCOUNTABILITY REPORT  
SOUTH CAROLINA DEPARTMENT OF NATURAL RESOURCES**

**(1) The DNR’s main products and services and the primary methods by which these are delivered**

The main service of the DNR is the protection and propagation of an enviable quality of life for the citizens of the state, which is created by the quality and abundance of South Carolina’s natural resources. Blessed with incredible natural bounty and beauty, South Carolina's natural resources are essential for economic development and contribute nearly \$30 billion and 230,000 jobs to the state's economy, according to a recently completed (2009) study entitled "Underappreciated Assets: The Economic Impact of South Carolina's Natural Resources" by the University of South Carolina Moore School of Business.

The wealth created by these natural resources is unsurpassed by other states and regions of the country and attracts and sustains business activity, which translates into economic wealth for all South Carolinians. This service is delivered through products and services that include administrative licensing/permitting processes and procedures, public outreach programs and activities that range from general information to detailed resource management, and promotion of South Carolina through the responsible use of these invaluable assets.

By The numbers, **Products and Services** include, but are not limited to:

\$30 Billion	Annual economic activity stemming from SC’s natural resources
947,127	Resident & Non-Resident licenses and permits purchased last year
462,801	Records submitted annually to county treasurers for tax purposes
370,270	Owners of actively registered watercraft
230,000	State jobs linked to SC’s natural resources (1 out of every 8 jobs in the state)
59,574	Individuals that participated in the Individual Antlerless Deer Tag Program
56,661	Individuals that participated in conservation education & instructional outreach
45,173	Subscribers to the <i>S.C. Wildlife</i> magazine
26,000	Individuals that participated in the <i>Archery in the Schools</i> Program
15,674	Individuals that participated in hunter education programs
3,450	Individuals that participated in boater safety programs
3,050	Individuals that participated in Beach Sweep/River Sweep cleanup activities
1,627	Landowners that participated in the Antlerless Deer Quota Program
317	Individual requests for hydrological technical assistance
221	Community leaders and citizens that were provided flood mitigation technical assistance

**Chart 1**

**(2) The DNR’s key customers groups and their key requirements/expectations**

As the advocate for and steward of the state's natural resources, the Agency’s primary customers are the citizens of South Carolina, and specifically, sportsmen and members of a broad range of hunting, fishing, conservation, business, and environmental organizations. In order to meet its customer’s key requirements/expectations, the DNR manages, protects, enhances, conserves, and propagates the state’s natural resources through science, research, education, and state and federal statutory and regulatory frameworks.

The Agency’s customers include but are not limited to: (i) commercial fishermen and trappers; (ii) landowners participating in Agency land and species management programs; (iii) educational institutions

and their students, teachers, and staffs; (iv) operators of private and corporate watercraft; (v) development interests needing land and water scientific data in order to plan, locate, and build facilities and infrastructure; and, (vi) public and private planning organizations needing a wide array of scientific research and monitoring data.

The Agency also serves many non-resident customers who are attracted to the state to enjoy its natural resources. Additionally, the DNR assists other state, federal and local government agencies, universities and colleges, planning agencies, and information and educational organizations needing information for the edification of their readers and students. The breadth and depth of its customer’s segments show that in addition to managing natural, cultural, and historical resources of the state, the Agency is also a major economic development and tourism agency.

**(3) The DNR’s key stakeholder groups (other than customers)**

The DNR’s key stakeholders that are not customers are the numerous hunting, fishing, conservation and environmental organizations, various state, county and municipal entities, and professional associations. Some of these groups have members who individually are customers, but their organizations as a whole are stakeholders. Many of these stakeholders, through partnerships with the Agency, are in fact suppliers to the DNR. Within Chart 2 below are examples of such organizations.

<b>The DNR’s Key Stakeholders Other Than Customers (including but not limited to)</b>		
<b>Hunting &amp; Fishing Organizations</b>	<b>Conservation &amp; Environmental Organizations:</b>	<b>Other State, County and Municipal Entities:</b>
<p><b><u>Hunting:</u></b></p> <ul style="list-style-type: none"> <li>- S.C. Sportsman’s Coalition</li> <li>- Ducks Unlimited *</li> <li>- Wild Turkey Federation *</li> <li>- Five Rivers Coalition</li> </ul> <p><b><u>Freshwater Fishing:</u></b></p> <ul style="list-style-type: none"> <li>- Bass Anglers Sportsman’s Society</li> <li>- Trout Unlimited *</li> <li>- Greenville Striper Kings</li> <li>- Midlands Striper Club</li> <li>- Lake Murray Guides Association</li> <li>- Pure Fishing</li> </ul> <p><b><u>Saltwater Fishing:</u></b></p> <ul style="list-style-type: none"> <li>- Hilton Head Reef Foundation *</li> <li>- S.C. Seafood Alliance *</li> <li>- S.C. Marina Association</li> <li>- S.C. Shellfish Growers Association</li> <li>- S.C. Shrimper’s Association</li> <li>- Coastal Conservation Association *</li> </ul> <p><b>* Denotes entities that the DNR has partnered with.</b></p>	<ul style="list-style-type: none"> <li>- Harry Hampton Wildlife Fund *</li> <li>- Wildlife Federation *</li> <li>- S.C. Farm Bureau *</li> <li>- The Nature Conservancy *</li> <li>- S.C. Forestry Association</li> <li>- Nemours Environ. Foundation *</li> <li>- Edisto Island Preservation Alliance *</li> <li>- Donnelly Foundation *</li> <li>- Ashley-Cooper Stormwater Education Consortium</li> <li>- Noisette Project</li> <li>- Lowcountry Open Land Trust</li> <li>- Carolina Clear</li> <li>- Focus Groups</li> <li>- Palmetto Conserv. Foundation *</li> <li>- The Conservation Fund *</li> <li>- The Land Trust Alliance *</li> <li>- North Inlet – Winyah Bay NERR *</li> <li>- S.C. Land Trust Network</li> <li>- S.C. American Fisheries Society</li> <li>- S.C. Fisheries Workers Association</li> <li>- S.C. Wildlife Society</li> <li>- Wildlife Action, Inc.</li> <li>- Sierra Club</li> <li>- Audubon Society</li> <li>- Teacher Environmental Network *</li> <li>- Coastal Conservation League</li> <li>- S.C. Coastal Information Network *</li> <li>- S.C. Forest Watch</li> <li>- Safari Club International</li> </ul>	<ul style="list-style-type: none"> <li>- S.C. Conservation Bank *</li> <li>- S.C. Emergency Preparedness Division</li> <li>- ACE Basin National Wildlife Refuge *</li> <li>- S.C. Parks, Recreation &amp; Tourism *</li> <li>- Local Emergency Preparedness - Offices</li> <li>- Various law enforcement entities</li> <li>- State water users (industry, agriculture, &amp; regional, county &amp; municipal water processors and providers)</li> <li>- S.C. Department of Education *</li> <li>- Regional Climate Centers *</li> </ul> <p><b><u>Professional Associations:</u></b></p> <ul style="list-style-type: none"> <li>- S.C. Wildlife Officers Association *</li> <li>- S.C. Association of Conservation Districts*</li> <li>- Soil and Water Conservation Society</li> <li>- Climatological Society</li> <li>- S.E. Assoc. of Fish &amp; Wildlife Agencies</li> <li>- Assoc. of Fish &amp; Wildlife Agencies</li> </ul> <p><b><u>Corporate Partners*</u></b></p> <ul style="list-style-type: none"> <li>- Duke Energy</li> <li>- Crescent Resources</li> <li>- International Paper</li> </ul>

**Chart 2**

**(4) The DNR’s key suppliers & partners**

The Agency has a diversity of suppliers that provide input for its operations. This has evolved as the DNR has maintained a traditional focus to develop partnerships and cooperative efforts with state and federal agencies to include: S.C. Department of Health and Environmental Control; S.C. Department of Parks, Recreation and Tourism; S.C. Forestry Commission; S.C. Department of Commerce; Sea Grant Consortium; Medical University of South Carolina; Clemson University; Francis Marion University; College of Charleston; University of South Carolina; State Technical Education System; U.S. Fish and Wildlife Service; U.S. Forest Service; National Marine Fisheries Service; U.S. Coast Guard; National Oceanic and Atmospheric Administration; and the Natural Resources Conservation Service, to name a few.

Other suppliers of input to the DNR are: owners of over 2,030 acres of private land in 45 public dove fields; timber companies; U.S. Forest Service and other state and federal agencies and private individuals in the 1.0 million acre Wildlife Management Area Program; federal grant agencies that provide funding for marine resources research and monitoring projects; 1,463 environmental permit applicants related to commercial and residential development; nearly 100 requestors seeking resource planning and stewardship assistance; over 200 communities identified as flood hazard areas; city, county and regional water authorities; local river management and conservation organizations; the Agency’s Advisory Committees; Deputy Law Enforcement Officers; boating dealers; marinas; sporting goods dealers and manufacturers; vehicle dealers; ATV dealers; law enforcement suppliers; agricultural and wildlife management suppliers; pond and aquaculture owners/operators; commercial fishermen; shooting preserves owners; hunting guides and lodges; and, commercial and recreational oyster bottoms lessees.

The DNR has developed partnerships with several institutions of higher education and with organizations denoted with asterisks in Chart 2.

**(5) The DNR’s operating locations**

<b>Four Regional Hub Offices</b>	<b>State Fish Hatcheries</b>
Clemson, Columbia, Charleston, Florence	Cohen Campbell (West Columbia), Mountain Rest (Walhalla)
	Heath Springs (Springs Stevens), Cheraw &
<b>Major Operational Locations</b>	Bonneau (Dennis Center)
Rembert Dennis Building (Columbia)	
5 Geology Road (Columbia)	<b>Wildlife Management Area Offices</b>
Dennis Wildlife Center (Bonneau)	Yawkey Wildlife Center, Samworth, and Santee Delta (Georgetown)
Marine Resources Center (James Island)	Santee Coastal Reserve (McClellanville)
Waddell Mariculture Center (Bluffton)	ACE Basin / Donnelley and Bear Island (Green Pond)
	Webb Wildlife Center (Garnett)
<b>Freshwater Fisheries Work Centers</b>	
Greenwood, Rock Hill, Barnwell, Eastover,	<b>Land, Water and Conservation District Offices</b>
	Offices located in Aiken, Anderson, Conway, Edgefield,
	Greenville, Lancaster, Lexington, St. Matthews

**Chart 3**

**(6) The DNR’s employees**

Department of Natural Resources Employee Count		
Permanent	....	<b>586</b>
Grant	....	<b>103</b>
Temporary	....	<b>142</b>
Contract (new)	....	<b>0</b>
<b>Total</b>	<b>...</b>	<b>831</b>

**Chart 4**

**(7) The DNR’s regulatory environment**

The DNR operates under numerous state and federal laws and regulations covering resource management, environmental affairs, administration, and other areas specific to the Agency’s mission. Chart 5 below provides just a few examples of statutes and regulations under which the DNR operates.

Resource Management	Environmental	Administrative	Other
All State and Federal Game & Fish Laws which include: S.C. Code of Laws Title 50; Federal Migratory Bird Act; Endangered Species Act Atlantic Coastal Fisheries Cooperative Management Act; Magnuson Stevens Fishery Conservation & Management Act;	DHEC Regulations, U.S. Army Corps. Of Engineers Regulations, Clean Water Act (U.S.C.) Rivers and Harbors Act (U.S.C.) SC Coastal Zone Management Act S.C. Code of Laws, Title 48 (Conservation) S.C. Code of Laws, Title 49 (Water)	Administrative Procedures Act GAAP Welfare Reform Act / Deadbeat Dad Statute FOIA Family Privacy Act Fair Labor Standards Act OSHA Americans With Disabilities Act Equal Employment Opportunity	US Coast Guard Regulations for titling of watercraft

**Chart 5**

**(8) The DNR’s performance improvement system(s)**

The DNR maximizes the use of the Employee Performance Management System (EPMS) to address performance improvement. Job duties with job performance expectations are communicated to the employee. This document also includes behavioral characteristics as well as training initiatives. Employees receive informal feedback regarding their performance throughout the year. Performance evaluations are administrated using a universal review date. The performance evaluation is the final phase of the feedback loop and ultimately becomes a feedback mechanism to enable performance improvements.

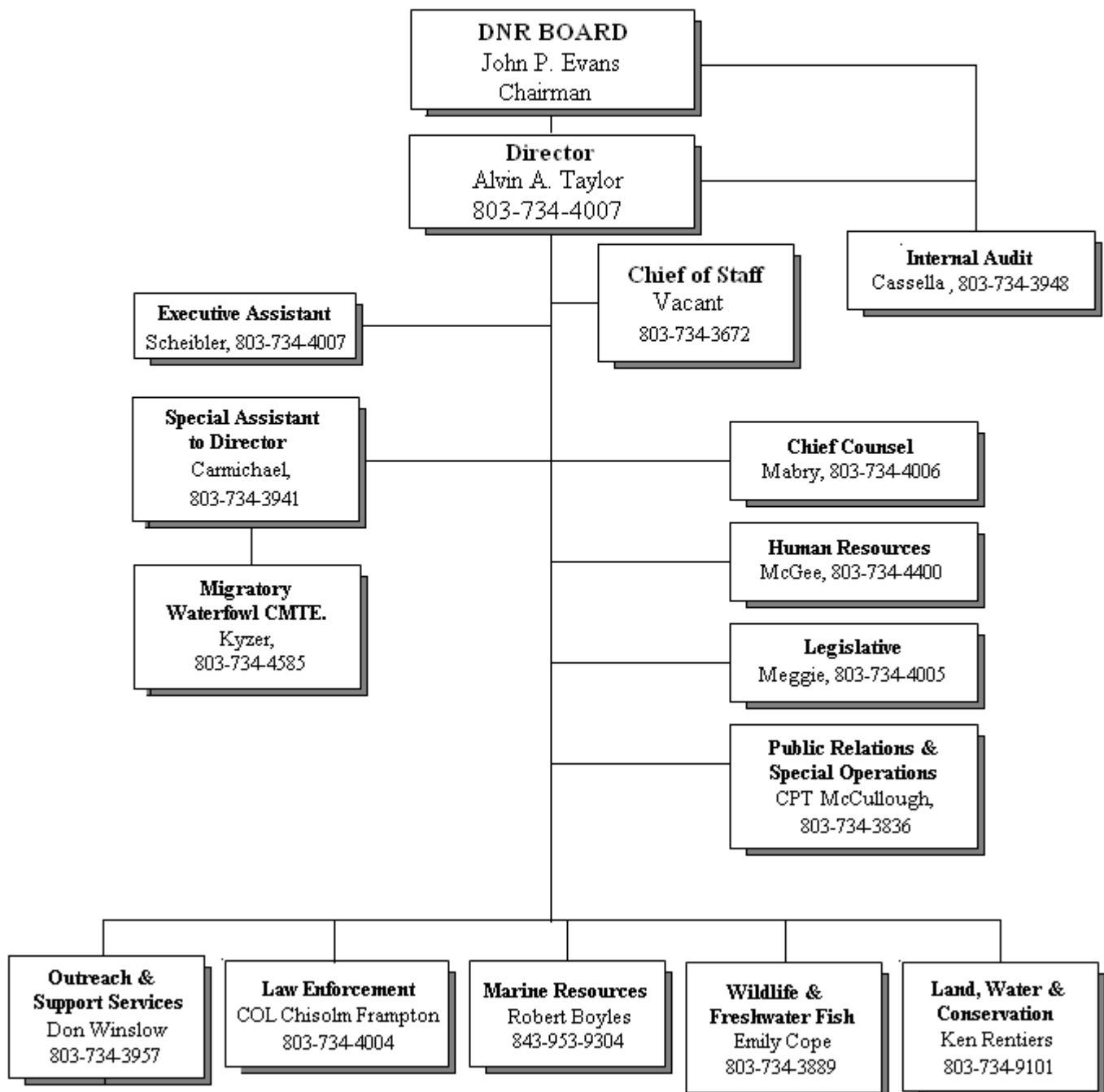
Other performance improvement systems include, but are not limited to:

- The Strategic Planning Process;
- “Regional Hub” coordination of Agency programs and activities \*\*;
- The DNR’s Internal Auditor;
- The Federal Aid Coordinator; and,
- Various training programs coordinated by the Human Resources Office.

(\*\* The state is divided into four regional hubs. Each of the Agency’s Divisions has a Regional Hub Coordinator whose primary function is to coordinate his/her respective Division’s activities alongside his/her counterparts in order to ensure better coordination. This regional approach ensures better communication, coordination of efforts, and quicker response times, thus avoiding unnecessary duplication of efforts.)

In addition, human dimensions surveys are routinely performed to determine public opinions, attitudes, and behavior related to programs and activities. These measures are used to develop data trends to compare performance and aid in setting priorities.

(9) The DNR's organizational structure





(10) The DNR's expenditures/appropriations

Major Budget Categories	FY 2010-11 Actual Expenditures		FY 2011-12 Actual Expenditures		FY 2012-13 Appropriations Act	
	Total Funds	General Funds	Total Funds	General Funds	Total Funds	General Funds
Personal Service	\$30,543,978	\$9,896,475	\$30,101,565	\$9,617,929	\$31,839,352	\$10,534,028
Other Operating	29,183,219	644,083	33,778,073	684,887	33,337,054	500,441
Special Items	26,196	0	27,659	0	31,800	0
Permanent Improvements	8,501,255	0	3,497,945	0	2,343,325	0
Case Services	0	0	0	0	0	0
Distributions to Subdivisions	2,262,804	629,004	1,876,249	629,004	1,209,004	629,004
Fringe Benefits	11,213,297	3,664,139	10,797,398	3,601,106	11,716,807	4,091,309
Non-recurring	1,282,877	137,787	1,089,957	89,957	2,260,505	0
<b>Total</b>	<b>\$83,013,626</b>	<b>\$14,971,488</b>	<b>\$81,168,846</b>	<b>\$14,622,883</b>	<b>\$82,737,847</b>	<b>\$15,754,782</b>

**Other Expenditures**

Sources of Funds	FY 2009-10 Actual Expenditures	FY 2010-11 Actual Expenditures
Supplemental Bills	\$0	\$0
Capital Reserve Funds	\$0	\$0
Bonds	\$0	\$0

(11) The DNR's major program areas

Program Number and Title	Major Program Area Purpose (Brief)	FY 10-11 Budget Expenditures	FY 11-12 Budget Expenditures	Key Cross Reference for Financial Results
<b>I. Administration</b>	The Administrative function of the Agency oversees the day-to-day operations of the DNR. These operations encompass a wide variety of activities that promote and support the implementation of Agency goals and the overall management of the DNR.	State: \$1,251,221 Federal: 0 <u>Other:</u> 1,324,921 <b>Total:</b> \$2,576,142 <b>% of Total Budget:</b> 2.7%	State: \$1,419,717 Federal: 0 <u>Other:</u> 1,202,602 <b>Total:</b> \$2,622,318 <b>% of Total Budget:</b> 3.2%	7.30; 7.31; 7.33; 7.34
<b>II. A Conservation Education</b>	The Conservation Education function of the Division of Outreach & Support Services provides public information, outreach, information technology, and educational services through a wide range of public and Agency programs and activities.	State: \$ 896,547 Federal: 333,544 <u>Other:</u> 1,978,442 <b>Total:</b> \$3,208,533 <b>% of Total Budget:</b> 3.9%	State: \$ 696,124 Federal: 670,355 <u>Other:</u> 2,969,797 <b>Total:</b> \$4,336,277 <b>% of Total Budget:</b> 5.3%	7.29
<b>II. B Titling &amp; Licensing Services</b>	The Boat Titling function of the Division of Outreach & Support Services provides and maintains the system for processing new titles for watercraft and outboard motors, watercraft registrations and their renewal, and transfers of watercraft and outboard motors in the state. Also, Boat Titling & Registration submits records to county auditors for personal property tax purposes. The Licensing component is responsible for the sale of licenses, tags & permits through a variety of outlets to include license agents, direct mail, internet sales, and the DNR offices.	State: \$ 34,768 Federal: 304,342 <u>Other:</u> 1,437,370 <b>Total:</b> \$1,776,480 <b>% of Total Budget:</b> 2.1%	State: \$ 0 Federal: 242,972 <u>Other:</u> 1,774,568 <b>Total:</b> \$2,017,540 <b>% of Total Budget:</b> 2.5%	7.28
<b>II. C Regional Projects</b>	Regional Projects include boating access, county water recreation funds, and county game & fish funds. The boating access component provides technical support on boating access services to local, county, and state entities. The direction for the county water recreation funds is found in SC Code of Laws, Section 12-28-2730 and the direction for the county game & fish funds is found in SC Code of Laws, Section 50-9-970.	State: \$ 0 Federal: 874,456 <u>Other:</u> 1,130,907 <b>Total:</b> \$2,005,363 <b>% of Total Budget:</b> 2.4%	State: \$ 0 Federal: 280,132 <u>Other:</u> 1,441,711 <b>Total:</b> \$1,721,843 <b>% of Total Budget:</b> 2.1%	7.29
<b>II. D Wildlife &amp; Freshwater Fisheries</b>	The Division of Wildlife & Freshwater Fisheries monitors, conducts surveys, manages, and protects wildlife species and inland aquatic species and their habitats throughout the state. The Division also provides recreational fishing and hunting opportunities for the public.	State: \$ 0 Federal: 8,401,823 <u>Other:</u> 9,558,976 <b>Total:</b> \$17,960,799 <b>% of Total Budget:</b> 21.6%	State: \$ 8,338 Federal: 8,400,547 <u>Other:</u> 9,405,547 <b>Total:</b> \$17,687,389 <b>% of Total Budget:</b> 21.8%	7.1; 7.2; 7.3; 7.4; 7.5; 7.6
<b>II. E Law Enforcement</b>	The Division of Law Enforcement is responsible for enforcement of state and federal laws that govern hunting, recreational and commercial fishing, recreational boating, and other natural resources conservation concerns to insure protection of life, property, and natural resources. Also, the Division assists other state law enforcement agencies with homeland security, litter violations, executive protection, natural disasters, and general law enforcement support functions for public safety matters.	State: \$ 6,253,730 Federal: 3,681,819 <u>Other:</u> 6,135,439 <b>Total:</b> \$16,070,988 <b>% of Total Budget:</b> 19.4%	State: \$ 6,161,591 Federal: 4,772,153 <u>Other:</u> 6,873,490 <b>Total:</b> \$17,807,233 <b>% of Total Budget:</b> 21.9%	7.18; 7.19; 7.20; 7.21; 7.22; 7.23; 7.24; 7.25; 7.26; 7.27

Program Number and Title	Major Program Area Purpose (Brief)	FY 10-11 Budget Expenditures	FY 11-12 Budget Expenditures	Key Cross Reference for Financial Results
<b>II. F Marine Resources</b>	The Division of Marine Resources is responsible for the management and conservation of the state's marine and estuarine resources. The Division conducts routine monitoring and research on the state's marine resources and makes recommendations for the management of those resources.	State: \$ 1,102,133 Federal: 5,947,220 <u>Other: 4,331,520</u> <b>Total: \$11,380,873</b> <b>% of Total Budget: 13.7%</b>	State: \$ 1,046,134 Federal: 5,941,725 <u>Other: 4,791,482</u> <b>Total: \$11,779,341</b> <b>% of Total Budget: 14.5%</b>	7.7; 7.8; 7.9; 7.10
<b>II. G Land, Water &amp; Conservation</b>	The Division of Land, Water and Conservation develops and implements programs that manage and conserve the state's land and water resources by providing guidance in resource development and management through planning, research, technical assistance, public education, and development of a comprehensive natural resources database.	State: \$1,631,164 Federal: 3,753,941 <u>Other: 1,651,914</u> <b>Total: \$7,037,019</b> <b>% of Total Budget: 8.5%</b>	State: \$1,599,916 Federal: 4,072,049 <u>Other: 1,859,507</u> <b>Total: \$7,531,473</b> <b>% of Total Budget: 9.3%</b>	7.11; 7.12; 7.13; 7.14; 7.15; 7.16; 7.17
<b>III. Employer Contributions</b>	The Employer Contributions represents the employer's portion for Payroll Taxes, Worker's Compensation, Health Insurance, Dental Insurance, State Retirement, and Unemployment Insurance.	State: \$ 3,664,139 Federal: 2,711,563 <u>Other: 4,837,595</u> <b>Total: \$11,213,297</b> <b>% of Total Budget: 13.5%</b>	State: \$ 3,601,106 Federal: 2,650,693 <u>Other: 4,545,600</u> <b>Total: \$10,797,398</b> <b>% of Total Budget: 13.3%</b>	7.33; 7.34

**Below: List any programs not included above and show the remainder of expenditures by source of funds.  
Capital expenditures, nonrecurring funds**

<b>Remainder of Expenditures:</b>	State: \$ 137,787	State: \$ 89,957
	Federal: 5,904,547	Federal: 60,376
	<u>Other: 3,741,797</u>	<u>Other: 4,778,077</u>
	<b>Total: \$9,784,131</b>	<b>Total: \$4,928,410</b>
	<b>% of Total Budget: 11.8%</b>	<b>% of Total Budget: 6.0%</b>

**SECTION III**  
**ELEMENTS OF MALCOLM BALDRIDGE AWARD CRITERIA**  
**2011/2012 ANNUAL ACCOUNTABILITY REPORT**  
**SOUTH CAROLINA DEPARTMENT OF NATURAL RESOURCES**

**The DNR Accountability Report: FY 2011-12**  
Category 1 – Senior Leadership, Governance, and Social Responsibility

**1.1: How do senior leaders set, deploy, and ensure two-way communication throughout the organization and with customers and stakeholders, as appropriate for: a) short and long term organizational direction and organizational priorities, b) performance expectations, c) organizational values, and d) ethical behavior?**

Senior leadership in the Agency consists of the Director, Alvin A. Taylor, five Deputy Directors, and Executive Office Administrators. The DNR Board sets the Agency's short and long-term direction. The Agency's Strategic Plan clearly communicates these short and long term directions and outlines the Agency's organizational values. The DNR's values inherently embody innovation, knowledge, and ethical behavior. The Board's direction is communicated by the Director to members of the senior leadership, and in turn to Section Chiefs, Division Managers and other employees. Communication methods used include electronic communications, office staff meetings, regional hub staff meetings, special purpose work groups and the Employee Performance Management System (EPMS). These communication methods allow for effective two-way communication to ensure that employees at all levels within the organization are in concert with the DNR's vision, mission, Strategic Plan, values, and goals.

Senior leadership establishes and communicates key organizational priorities for improvement through the legislative and budgetary processes. These proposals are reviewed by the DNR Board and upon approval, are submitted to appropriate committees in the General Assembly for consideration. Both the legislative package and budgetary proposals are linked to critical natural resource issues and needs as identified through staff and public input, interest group input, and recommendations from legislators and/or key political leaders. It is through this input and these various processes that the Agency can support and strengthen the community and determine areas of emphasis. Senior leadership works to effectively implement these processes to maintain a primary focus on customers, the DNR vision, and the well-being of the state's natural resources.

In working towards achieving the goal of creating an Agency environment that supports a dedicated and professional workforce, the DNR encourages organizational and employee learning. For example, in the Agency's Divisional Operational Plans, employee training is encouraged and supervisors are required to identify professional and technical training needs, and document those needs and intended actions in the employee's EPMS planning stage. Learning is also enhanced through staff being assigned to special committees which provide a greater exposure and understanding of the Agency. The Strategic Plan also encourages staff to participate in state, regional, and national professional organizations.

In general, ethical behavior is set in the core values and guiding principles of the Agency's Strategic Plan and is defined more clearly and specifically in the Agency's policy manual. Senior staff communicates these values and expectations in routine discussions and formal meetings with

staff and strive to model ethical behavior by their actions. When this standard is not met, the DNR responds in a fair, consistent, and decisive manner.

By communicating the Agency's mission, vision, core values, guiding principles, and the Strategic Plan in order to achieve its goals, senior leaders have effectively laid the foundation for setting, deploying, and ensuring two-way communication for empowerment and innovation amongst the DNR's employees.

**1.2: How do senior leaders establish and promote a focus on customers and other stakeholders?**

The DNR's core organizational values as described in the Executive Summary, which guide the Agency's actions, give the direction by which senior leadership establishes and maintains a continuous focus on customers and other stakeholders. Since the public uses and enjoys natural resources year-round, the DNR is able to maintain constant contact with its customers and other stakeholders. The goals and strategies described in the Agency's Strategic Plan provide the direction for each Division and all the DNR's employees to focus on customer service and address issues identified by communication with customers and stakeholders. Examples vary from the utilization of the Agency's customer focused Regional Hub approach; the process evolution that brought the DNR to an in-house internet based launch of watercraft renewals, duplicate cards, and decals; to a new point-of-sale licensing system that allows customers to purchase and print their licenses from the convenience of their own home.

**1.3: How does the organization address the current and potential impact on the public of its programs, services, facilities and operations, including associated risks?**

The Agency addresses current and potential impacts on the public of its products, services, facilities, and operations in a variety of ways. These impacts are evaluated through legislative, regulatory, policy-making and related processes, to include extensive public involvement and meetings in order to gain a diverse cross section of input. The impact of programs and operations is noted through legislative contacts, constituent organizations, commercial and recreational interests, advisory committees, and through other private/public entities. In each case, senior leaders review information provided on impacts of programs and services to ensure the resource is properly managed and protected, as well as representing the best interest of the public. In programmatic areas where there is potential risk, such as hunting, boating and other outdoor enjoyment, the DNR actively promotes public outreach efforts to adequately inform the public of associated risks. These potential risks are further addressed through special education and training classes such as Hunter and Boater Safety. During high use times and seasons, emphasis on special law enforcement strategies and techniques are focused on enhancing safety and regulatory compliance. Finally, beyond education, training, and enforcement, the Agency seeks a preemptive legislative role by pursuing specific laws and/or regulatory controls to protect the safety of people and property *before* issues (such as boating-related fatalities) become major public policy concerns.

**1.4: How do senior leaders maintain fiscal, legal, and regulatory accountability?**

The Director of the Office of Support Services and staff continually monitor the status of Agency income and budget against current and anticipated expenditures. The Division Director then communicates such findings through regular reports and meetings with the Director and fellow Deputy Directors on a regular basis. Senior leaders maintain fiscal accountability through continual monitoring of their respective budgets and expenditures. Weekly Division meetings are held to brief key staff on progress of department projects, functions, and budget status reviews.

The Agency's Director holds monthly meetings with Deputy Directors and other key staff who are given strict fiscal guidelines by the Director and held accountable for following those guidelines. Legal and regulatory accountability is maintained through the constant involvement of three staff attorneys, the Internal Auditor, and the Federal Aid Coordinator. Accountability is also maintained by rigorous review of all contracts, purchase requisitions, grants, and travel requests. Under their guidance, staff is in constant contact with the local, state and federal regulatory agencies that have purview over Agency operations to insure that legal and regulatory requirements are understood and followed.

**1.5: What performance measures do senior leaders regularly review to inform them on needed actions?**

Key performance measures that are regularly reviewed by senior leaders include data relating to:

- Boating and hunting accidents and fatalities;
- Boating and hunter safety participation;
- The number of law enforcement cases made;
- The number of warnings and summons issued;
- The number of hours assisting other law enforcement agencies;
- The number of educational events/classes and their number of participants;
- The cost per acre of land acquired under the Heritage Trust Program;
- The number of activities within the S.C. Climate office;
- The number of National Flood Insurance Policies issued within the state;
- Nuisance aquatic weed coverage on public waters of the state;
- The state's artificial reef activities;
- The number of pounds of commercial shrimp and crab landed in the state;
- Red Drum catch and release activity;
- Employee turnover; and,
- Staff levels.

The Divisions' Operational Plans identify performance measurements, frequency of assessment, and the responsible party for each task. The Divisions are also working on identifying measures to be reviewed on a regular basis to show Division-wide progress. This linkage between Division performance and the overall progress of the Agency is being assisted by the Assistant Director for Policy and Development. With new database capabilities, the DNR will have the ability to obtain, process, and trend even greater data in the near future.

**1.6: How do senior leaders use organizational performance review findings and employee feedback to improve their own leadership effectiveness, and the effectiveness of management throughout the organization including the head of the organization, and the governance board/policy making body? How do their personal actions reflect a commitment to organizational values?**

Employee feedback is routinely submitted to senior leaders through direct contact, regional workshops, special purpose committees, and through the chain of command within the Agency's Divisions. Employee surveys are conducted to secure feedback on particular issues or problems. Input from employees is attained through the DNR's website on matters having Agency-wide significance, such as updating the Strategic Plan. Senior leaders review this information and feedback, determine what is applicable in each Division, and implement needed changes to

improve leadership effectiveness and management of the Agency. They also use inter and intra-divisional task forces to review particular issues/problems and provide feedback and performance review findings.

**1.7: How do senior leaders promote and personally participate in succession planning and the development of future organizational leaders?**

Senior leaders promote and personally participate in succession planning and the development of future organizational leaders by constantly looking to identify those individuals within the organization who possess the needed competencies or who have potential to possess the needed competencies. Senior leaders look to the future and are preparing to rebuild pockets within the Agency that have been left vacant due to the loss of funds and downsizing. When identified, potential future leaders are encouraged to receive appropriate training in leadership skills and to serve on special committees that address high level management issues and provide exposure to Agency programs and management staff.

**1.8: How do senior leaders create an environment for performance improvement and the accomplishment of strategic objectives?**

**1.9: How do senior leaders create an environment for organizational and workforce learning?**

**1.10: How do senior leaders communicate with, engage, empower, and motivate the entire workforce throughout the organization? How do senior leaders take an active role in reward and recognition processes to reinforce high performance throughout the organization?**

**1.8-1.10:** The DNR uses four approaches to create an environment for performance improvement, accomplishment of strategic objectives, and innovation.

First, the DNR leadership is actively involved in the implementation of the “Vision for the Future” document. This document, along with supporting business plans, includes various measures to ensure that performance is “on target” and identifies areas needing improvement. Along with performance measures associated with the Strategic Plan, the DNR senior leaders review measures as outlined in 1.5.

Second, senior leaders: (i) participate in the monthly Agency Board meetings, and (ii) communicate to, and reinforce priorities for, the DNR through monthly Deputy Director meetings, quarterly meetings with Division Managers, and staff through scheduled meetings within each Division and their respective sections. Hub meetings are scheduled monthly and include the Hub coordinators for each region - with senior leaders and Board members always welcomed at these meetings. The Hubs also hold an annual meeting which includes key personnel throughout the Agency and senior leaders.

Third, the DNR leadership relies on the Accountability Team to stay abreast of strategic objectives and key measures as well as opportunities for innovation. All members are either senior leaders or high-level managers. This team also reviews and participates in the writing of the Agency’s Accountability Report.

Finally, the DNR utilizes the EPMS document to hold individual employees accountable for achieving important goals and addressing areas needing improvement. All employees are

encouraged to seek best practices in other state agencies within South Carolina and throughout the nation and report those practices to senior leaders. Staff is also encouraged to participate in professional and scientific organizations where they are exposed to new innovations in their respective fields and implement them throughout the DNR when appropriate.

**1.11: How do senior leaders actively support and strengthen the communities in which your organization operates? Include how senior leaders determine areas of emphasis for organizational involvement and support, and how senior leaders, the workforce, and the organization contribute to improving these communities.**

The Agency's outreach programs provide continuous involvement in the community. Education programs provide schools throughout the state the opportunity to increase knowledge and awareness of the state's natural resources. The fishing rodeos, the Palmetto Sportsmen's Classic, Reel Kids, National Hunting and Fishing Day, and Beach Sweep River Sweep events are just a few examples of the DNR's partnering efforts with the community. The Agency also encourages its employees to participate in such events as the Walk for Life, the United Way Campaign, and the March of Dimes Walk. Quarterly, the DNR sponsors a blood drive for the local Red Cross. Scholarship programs for dependents of Agency employees are offered through the Harry Hampton Fund and the Greenville Saltwater Sportfishing Club.



**The DNR Accountability Report: FY 2011-12**  
Category 2 – Strategic Planning

**2.1: What is your Strategic Planning process, including key participants, and how does it address: a) your organization’s strengths, weaknesses, opportunities and threats; b) financial, regulatory, societal and other potential risks; c) shifts in technology and customer preferences; d) workforce capabilities and needs; e) organizational continuity in emergencies; and f) your ability to execute the strategic plan.**

The DNR’s “Vision for the Future” Strategic Plan was developed in FY 2005-06 and the document is in the process of being fully deployed. The implementation of specific action items - which fall under the general action plan/initiatives as shown in the Strategic Planning Chart below – will be monitored by Divisions’ key performance measures that have been or are currently in the process of being reassessed and updated. Holistically then, goals and objectives of the Agency’s Strategic Plan serve as the standardized outline for the implementation of action plans/initiatives which are then monitored by the DNR’s key measures.

In FY 2012–13, the DNR plans on full deployment of the Strategic Plan to all of its Divisions. This deployment will include: (1) the continued refinement of Divisional Action Plans; (2) the development of a new management report entitled the Quarterly Performance Report (QPR) which will update and report Divisional key measures, as shown in Section 1.5 (as well as the financial performance of the DNR’s Divisions), to senior management on a quarterly basis and which will annually be linked to the Agency’s Accountability Report; and, (3) a direct link to each employee’s EPMS planning stage. Once deployed, each Division and the Agency’s Accountability Team will routinely review specific action plan timelines and results.

The key participants in the strategic planning process are the following Agency senior leaders: the Director, Chief of Staff, Deputy Directors, and Executive staff. In addition to these senior leaders, the DNR has an Accountability Team, which is comprised of at least two senior staffers from each Division.

**2.2: How do your strategic objectives address the strategic challenges you identified in your Executive Summary?**

The DNR’s Key Strategic goals are as follows:

- Goal 1: Enhance the effectiveness of the Agency in addressing natural resource issues.
- Goal 2: Improve the general operations of the Agency.
- Goal 3: Create an Agency environment that supports a dedicated, professional workforce.
- Goal 4: Enhance public trust and confidence in the Agency.

**2.3: How do you develop and track action plans that address your key strategic objectives, and how do you allocate resources to ensure the accomplishment of your action plans?**

The DNR’s Strategic Plan was developed in FY 2005-06 and the document is in the process of being fully deployed. The implementation of specific action items - which fall under the general action plan/initiatives as shown in the Strategic Planning Chart below – will be monitored by Divisions’ key performance measures that have been or are currently in the process of being

reassessed and updated. Holistically then, goals and objectives of the Agency's Strategic Plan serve as the standardized outline for the implementation of the action plans/initiatives which are then monitored by DNR's key measures.

In FY 2012–13, the DNR plans on full deployment of the Strategic Plan to all of its Divisions. This deployment will include: (1) the continued refinement of Divisional Action Plans; (2) the development of a new management report entitled the Quarterly Performance Report (QPR) which will update and report Divisional key measures, as shown in Section 1.5 (as well as the financial performance of the DNR's Divisions), to senior management on a quarterly basis and which will annually be linked to the Agency's Accountability Report; and, (3) a direct link to each employee's EPMS planning stage. Once deployed, each Division and the Agency's Accountability Team will routinely review specific action plan timelines and results.

**2.4: How do you communicate and deploy your strategic objectives, action plans and related performance measures?**

The Director, in Regional staff meetings, communicates the Strategic Plan to all employees at least once a year. Hub coordinators in quarterly meetings, as well as other senior leaders in sectional meetings within each Division, then reinforce the plan throughout the year. At this point, the primary media tool has been the brochure titled, *South Carolina Department of Natural Resources Vision for the Future*. Other communication modes include, but are not limited to, the Strategic Plan, Divisional Action Plans, and key related performance measures (as reported on the QPR) being available and maintained on the Agency's Intranet web-site. Beyond such communication, training will continue to play a large role for new employees as they are required to take a training class which outlines the importance of the Strategic Plan and how it fits in with their duties and the role they play as a member of Team DNR.

**2.5: How do you measure progress on your action plans?**

By establishing benchmarks and timelines for specific action plans, the DNR will have the ability to measure each plan's progress. Progress is measured through the identification, assessment, and updating of performance measures, the monitoring of frequency assessment, and the monitoring of timeframes. By using these processes and evaluating each plan with questions such as: (1) how does the reported performance compare with the previous performance?; (2) is the performance/schedule variance likely to prevent goal achievement?; (3) are external factors affecting performance? (If so, what are these factors?); (4) is the performance/schedule variance due to unrealistic initial projections/planning?; and, (5) when will performance information be collected again?, the Agency can determine what modifications should be made to the action plan.

**2.6: How do you evaluate and improve your strategic planning process?**

Most of the DNR's program areas are working with limited and strained human and fiscal resources as discussed in the Agency's key strategic challenges section within the Executive Summary. These issues constrain the Agency's ability to manage its programs effectively. Strategic goals 2 and 3 address these strategic challenges.

Two of the objectives of Strategic Goal 2- Improving the general operations of the Agency – are: (1) maximizing the efficiency of internal operations and business procedures; and, (2) aggressively pursuing increases in existing revenue, state, and federal funding, while identifying new funding sources to support the mission of the Agency.

Two of the objectives of Strategic Goal 3 - Creating an Agency environment that supports a dedicated and professional workforce – are: (1) the expansion of consistent, Agency-wide employee training, retention, and compensation efforts; and, (2) the implementation of initiatives that improve employee morale and teamwork, that instill a sense of pride in the Agency, and that emphasize the importance of the Agency’s mission.

**2.7: If the agency’s strategic plan is available to the public through the agency’s internet homepage, please provide a website address for that plan**

The DNR’s Strategic Plan is available at [www.dnr.sc.gov](http://www.dnr.sc.gov).

## Strategic Planning

Program Number and Title	Supported Agency Strategic Planning Goal/Objective	Key Agency Action Plan/Initiatives	Key Cross Reference for Performance Measures
	<p><b>Strategy 1:</b> 1. Enhance the effectiveness of the Agency in addressing natural resource issues.</p>	<p><b>Action 1:</b> Broaden strategies to address the impacts of population growth, habitat loss, environmental alterations, overuse and other challenges faced in protecting, enhancing and managing diverse natural resources.</p>	<p>7.7; 7.8; 7.9; 7.10; 7.11; 7.12; 7.17</p>
		<p><b>Action 2:</b> More effectively develop, coordinate, and integrate resource-specific conservation and management plans, research and policies within the Agency.</p>	<p>7.1; 7.2; 7.3; 7.4; 7.5; 7.6; 7.7; 7.8; 7.9; 7.12; 7.13</p>
		<p><b>Action 3:</b> Expand sound application of science for natural resource management and decision-making.</p>	<p>7.7; 7.8; 7.9; 7.10; 7.11; 7.12; 7.13; 7.14</p>
	<p><b>Strategy 2:</b> Improve the general operations of the Agency</p>	<p><b>Action 1:</b> Develop and implement Agency-wide operational plans that clearly connect all Agency activities to specific goals and annual accountability reports.</p>	
		<p><b>Action 2:</b> Fully develop the Agency’s regional hub system.</p>	<p>7.33; 7.34</p>
		<p><b>Action 3:</b> Continue to develop and maintain modern, well-integrated information systems and technology throughout the Agency.</p>	<p>7.30; 7.31</p>
		<p><b>Action 4:</b> Enhance and maintain effective communications throughout all levels of the Agency.</p>	<p>7.33; 7.34</p>
		<p><b>Action 5:</b> Maximize efficiency of internal operations and business procedures.</p>	<p>7.11; 7.12; 7.13; 7.14; 7.18; 7.19; 7.20; 7.28; 7.29; 7.31; 7.33; 7.34</p>
		<p><b>Action 6:</b> Aggressively pursue increases in existing revenue, state and federal funding, while identifying new funding sources to support the Agency’s mission.</p>	<p>7.11; 7.17</p>

## Strategic Planning

Program Number and Title	Supported Agency Strategic Planning Goal/Objective	Key Agency Action Plan/Initiatives	Key Cross Reference for Performance Measures
	<b>Strategy 3:</b> Create an Agency environment that supports a dedicated, professional workforce.	<b>Action 1:</b> Implement comprehensive workforce planning that is consistent with Agency priorities.	7.33; 7.34
		<b>Action 2:</b> Expand consistent, Agency-wide employee training, retention, and compensation efforts.	7.33; 7.34
		<b>Action 3:</b> Implement initiatives that improve employee morale and teamwork, instill a sense of pride in the Agency, and emphasize the importance of the Agency's mission.	7.33; 7.34
	<b>Strategy 4:</b> Enhance public trust and confidence in the Agency.	<b>Action 1:</b> Foster more effective communications, outreach, and partnerships with the public and State Legislature.	7.10; 7.14; 7.18; 7.19; 7.20; 7.21; 7.28; 7.29; 7.31
		<b>Action 2:</b> Develop strategies that address divergent public opinion and expectations concerning issues related to accessibility, use, and protection of natural resources.	7.2; 7.3; 7.29
		<b>Action 3:</b> Optimize the Agency's customer service through regular monitoring of constituent needs, public opinion, and Agency performance.	7.2; 7.3; 7.4; 7.5; 7.6; 7.7; 7.31
		<b>Action 4:</b> Enhance natural resource education in order to provide the public with the necessary knowledge to make informed natural resource decisions.	7.11; 7.12; 7.21; 7.22; 7.23; 7.24; 7.25; 7.26; 7.29

**The DNR Accountability Report: FY 2011-12**  
Category 3 – Customer Focus

**3.1: How do you determine who your customers are and what their key requirements are?**

**3.2: How do you keep your listening and learning methods current with changing customer/business needs and expectations?**

**3.1-3.2:** Through development of performance measures for programs in the Agency, processes are identified that deliver services and provide customer satisfaction throughout the state. The DNR places a great deal of emphasis on all employees being customer focused. With a broad-based staff located throughout the state, employees are expected to respond to the needs and expectations of the Agency customers to which they are exposed. One of the Agency's primary listening and learning methods is through its Citizen Advisory Committees. With the exception of Outreach and Support Services (the previously merged Administration and Communication Divisions), each Division has at least one Citizen Advisory Committee that is either provided for in statute or created by Executive Order. The purpose of these Citizen Advisory Committees is to solicit public input and to advise the DNR Board on matters of policy and issues that affect the state's natural resources. Public meetings are usually held by each committee every two months in locations across the state to make it convenient for the public to attend and interact with the committees and their respective staffs. The DNR's website has installed a comments section that allows its customers to pose questions or lodge complaints about Agency services, products, and processes. Key individuals in each program area have been identified to receive and respond to these inputs from the Agency's customer base, and the volume of contacts and responses is tracked and analyzed. In recent years, the volume of comments, questions, and expressions of concern received in the Agency's Executive Office has increased enormously. In order to deal with this challenge, an Executive Office Ombudsman function has been created to provide a more formalized and accountable system of response and information dissemination.

**3.3: What are your key customer access mechanisms, and how do these access mechanisms enable customers to seek information, conduct business, and make complaints?**

The DNR has identified its customers through a variety of means of interaction. License holders/vendors are the Agency's largest customer group. Through Point of Sale (POS), these customers are now part of a database that can be accessed by e-mail communication. Additionally, the Agency has direct interaction with these customers through outreach events, courtesy law enforcement checks, response to phone inquiries, and web inquiries.

**3.4: How do you measure customer/stakeholder satisfaction and dissatisfaction, and use this information to improve?**

The DNR has identified those persons, organizations, and governmental agencies that are either recipients or beneficiaries of work efforts or purchasers of products and services produced by the Agency. The DNR works to determine and fulfill internal and external customers' key requirements by asking questions, defining terms, and setting standards for continuous improvement. An example of this continuous improvement was the DNR's conversion of license sales to an on-line sales system – a conversion that streamlined the license sales process while decreasing expenditures. For instance, by FY 2008-09, 100% of license sales agents for the

Agency had been converted to on-line sales because of the benefits afforded this process. Such benefits for customers include greater accessibility and convenience. Beyond accessibility and convenience though, the Agency acquired the ability to capture and analyze information and forecast trends so that it could better respond to the ever growing and changing needs of its customer base regarding product and service mix. Because of the success of its on-line license sales, the Agency is also seeking to expand on-line processes to boating renewals in order to improve efficiency and customer service. The Agency works to continuously monitor key processes to ensure that customer needs are met.

The DNR maintains close contact with its customers and undertakes methods to listen and learn about changing customer/business needs. These methods enable the Agency to secure information needed to improve services/programs and measure customer satisfaction and dissatisfaction. Improvements based on this information can be made through a number of processes that include, but are not limited to: administrative action; the Citizen Advisory Committee process referenced in 3.1-3.2; action by the DNR's Board; and/or legislative action.

**3.5: How do you use information and feedback from customer/stakeholders to keep services and programs relevant and provide for continuous improvement?**

Through surveying done for most of the Agency's education and outreach programs, the DNR is able to update and enhance the programs provided to customers and stakeholders. Verbal and written feedback by license and boating customers has driven a number of forms and process changes to provide a quicker turnaround of services and licenses requested.

**3.6: How do you build positive relationships with customers and stakeholders to meet and exceed their expectations? Indicate any key distinctions between different customer and stakeholder groups.**

Through the Agency's processes, programs, and services, the DNR has built positive relationships with customers and stakeholders. As a resource management agency that operates throughout the state, Agency field staff is seen as an integral part of the community. Because of this, the Agency has an outstanding level of credibility with its customer base. As a law enforcement agency, the DNR has been effective in enforcing laws in a manner that protects the state's natural resources for use and enjoyment by a large portion of the state's citizens. With the state's natural resource base being such an important component of its culture, the Agency's ability to preserve and protect this culture has resulted in building positive relationships. The DNR has also been effective in the community by assisting other state, local, and federal agencies during emergencies, manhunts, hurricanes, security, communications, search and rescue, and recovery activities.

**The DNR Accountability Report: FY 2011-12**  
Category 4 – Measurement, Analysis & Knowledge Management:

- 4.1: **How do you decide which operations, processes and systems to measure for tracking financial and operational performance, including progress relative to strategic objectives and action plans?**
- 4.2: **How do you select, collect, align, and integrate data/information for analysis to provide effective support for decision making and innovation throughout your organization?**

**4.1-4.2:** The DNR's performance management system is a reflection of the Agency's vision and mission and how programs operationalize the vision and mission to produce effective business results. The Agency utilizes key measures that relate to its primary mission including resource impacts, financial performance, customer service, and allocation of resources. The DNR meshes these key measures with the best scientific information available when it makes key management decisions. The category of collecting scientific information on natural resources managed by the DNR is directly linked to the Agency's vision and mission. A variety of programs exist in the Agency where health, well-being, and sustainability of natural resources are measured to ensure proper management and protection. These programs include the State Climate Office, Hydrology, Aquatic Nuisance Species Control, Flood Mitigation, Environmental Review, Habitat Protection, the Southeastern Regional Climate Center, Endangered Species, Heritage Trust, Wildlife Management, Freshwater Fisheries, Marine Resources Office of Fisheries Management, Marine Resources Research Institute, and the S.C. Geological Survey.

Another category in which the Agency develops measures is its customer base. With a finite level of natural resources and an expanding population in the state, the level of customer participation in outdoor activities and the trends in this participation is a key link to the vision and mission of the DNR. In addition, measures of requests for data/information, technical assistance, maps, educational products/services, conflicts between resource users, and changing constituent groups are all critical to the Agency's performance.

The Agency also gauges its performance in the financial arena since it requires a sustainable financial base from year to year in order to meet its vision and mission. The level of state funding is an integral part of this category as the DNR currently secures 19.0% – down from 27.5% just five years ago - of its budget from state funds. The Agency also collects revenue from a variety of sources that provide key support to law enforcement and wildlife/fishery programs. The levels of hunting and fishing license sales, boat titling and registration fees, marine resources licenses and permits, magazine subscriptions, and related revenue sources are key performance measures to track as they affect programs, operations, and ultimately, the mission of the Agency. Grants also serve as an important funding source for the Agency and the level of extramural grants funded has a critical impact on key programs and projects.

In conjunction with the new Strategic Plan "Vision for the Future" which was initiated during FY 2005-06, each of the Divisions has or is currently in the process of reassessing and updating their key performance measures, where appropriate. The goals and objectives of the Strategic Plan serve



as the standardized outline for the implementation of the Agency's action plans and initiatives. These action plans/initiatives link the DNR's key measures back to specific goals.

**4.3: What are your key measures, how do you review them, and how do you keep them current with organizational service needs and directions?**

The Agency's key measures include the following:

- Economic impacts of hatchery production and expenditures;
- Participation in hunting and fishing;
- Wildlife watching, and wildlife related recreation when compared with other states;
- Revenue trends measured as watercraft titling and registration renewal methods;
- License sales comparisons with other states;
- Boater access;
- Marine species abundance surveys;
- Gamefish tagging;
- Charter vessel reporting trends;
- Commercial landing trends;
- Artificial reef activity;
- Law enforcement effort measures;
- Hunting accident/fatality trends compared to other states;
- Hunter safety student participation trends;
- Boater safety measurements and caseloads;
- Boater safety student trends compared with numbers of boats registered;
- Litter enforcement measures;
- Numbers of, and participation in, education classes and programs;
- USDA cost share funding trends;
- Scientific reports (presentations and publications);
- Geological Survey mapping trends;
- Nuisance aquatic plant coverage trends;
- Numbers of comprehensive environmental reviews;
- Numbers of flood insurance policies; and,
- GIS data access trends.

With this broad scope of measures, the Agency's Strategic Plan is in the process of being fully deployed. Once fully deployed, each Division and the Agency's Accountability Team will routinely review specific action plan timelines and results.

**4.4: How do you select and use key comparative data and information to support operational and strategic decision making and innovation?**

The DNR uses comparative data and information in a continuous manner to provide effective support for decision-making. In the scientific arena, the analysis of data to include trends, regression, correlation analysis, etc., is an integral component of the scientific process. These types of analyses and others are used to draw conclusions on biological issues related to the Agency's mission to protect and conserve the resource. In the law enforcement arena, the DNR maintains a comprehensive intelligence system used to develop intelligence and comparisons on natural resource violations in order to support effective decision-making for staffing, patrol patterns,

duration of patrols, and the time of day/night or season. Data collection and analysis relating to hunting and boating accidents/fatalities is important in investigating such occurrences to determine if criminal charges may exist and to provide feedback. This feedback provides trends and comparisons that support decision-making on methods to ensure the safety of human life and property. Changing demographics and land-use trends in the state provide valuable information to support planning and management decisions in the Agency. Human dimensions data and changing landscape information are constantly developed by the DNR to support decisions relating to the future direction of programs and the allocation of resources to meet the vision and mission of the Agency. Whenever possible and when compatible, the DNR will use comparative data and information from other agencies and/or states to support decisions. With the dynamic nature of natural resources management from state to state, it is often difficult to identify compatible data for comparative purposes. Given this complexity, the Agency will, at times, use its own database to make comparisons from one time frame to another for use in the decision-making process.

**4.5: How do you ensure data integrity, reliability, timeliness, accuracy, security and availability for decision making?**

In the aforementioned categories, effective use of performance measures to make decisions is based upon data quality, integrity, timeliness, accuracy, reliability, quality, security, and availability. The Agency ensures these factors occur through a variety of methods. Through the use of scientific research, the Agency collects data pursuant to a protocol based upon standards for data quality and reliability. For deciding seasons, bag limits, hunting and fishing methods, etc., the data is collected based upon the time and availability needed to make such decisions and is complete before it is used in this process. Many of the DNR's data collections are done through grants and contracts that require a final report for submission to the appropriate agency. In order to maintain credibility for utilizing such grants and to secure reimbursement for funds expended on a grant, the grantor will review the final report to ensure data quality, reliability, and completeness. In the financial category, there are established standards that must be followed to maintain data quality and reliability. The DNR routinely has internal and external financial audits to see that the standards are met. By maintaining a well-managed financial system with a diversity of checks and balances, the Agency ensures such financial data is complete and available for use at the appropriate times for decision-makers. As a public agency serving a very broad customer base, the DNR must maintain a quality database to make decisions regarding these customers. Through the use of current information technologies and a highly skilled workforce, the Agency provides reliable and timely data for its customers and for use in the decision-making process. There are also peer reviews of the Agency's data collection and use to further ensure its quality and reliability.

**4.6: How do you translate organizational performance review findings into priorities for continuous improvement?**

Findings from measures as noted in 4.3 are reviewed with key senior leaders on a regular basis, either at the monthly Deputy Directors' Meeting, Board Meeting, or more often, as needed. Information obtained from these findings immediately feeds into the priorities for the Agency and results in appropriate action for improvement. Data collection obtained for grants and contracts is regularly reviewed in accordance with the regulatory requirement associated with the grant and/or contract. In many cases, data that extends beyond the grant's initial scope is needed in order to answer a scientific research question related to the grant. Such research is essential and critical to the continued functioning and maintenance of the DNR's mission as the principal advocate for, and steward of, South Carolina's natural resources. The Agency is also subject to reviews and audits by various governmental entities related to fiscal accountability, human resources, permitting, and

zoning regulations. As a result, the Agency modifies processes, as necessary. Finally, the DNR listens to its customers and key stakeholders through public forums, through advisory committee meetings, through informal communication, and through website responses. Customer and key stakeholder feedback is analyzed and acted upon, when appropriate. All such feedback is prioritized based on the directives of the Agency's Strategic Plan.

**4.7: How do you collect, transfer, and maintain organizational and workforce knowledge (knowledge assets)? How do you identify, share and implement best practices, as appropriate?**

With the loss of personnel as a result of budget reductions, the Agency has become more acutely aware of the ongoing and accelerating loss of institutional knowledge. When identified, potential future leaders are encouraged to receive appropriate training in leadership skills and to serve on special committees that address high level management issues and provide exposure to Agency programs and management staff.

The DNR permanently lost 167 unfilled positions in FY 2010-11 resulting in a 19.6% reduction in authorized FTE's. The Agency's vacancy rate crept up slightly from an average of 12% in FY 2010-11 to 14% in FY 2011-12. Although the turnover rate has fallen from 7.7% in FY 2010-11 to 4.7% in FY 2011-12 (See Figure 7.34), passing on critical knowledge remains a high priority.

In addition to personnel succession, the Information Technology Section of the Office of Support Services has been tasked with exploring and implementing technological programs that will facilitate the collection and accessing of existing published, printed, and electronically filed information for ready retrieval, and methods of capturing existing institutional knowledge that will be needed in the future.

The DNR's leadership is focused on standardizing methods to maintain and accumulate employee knowledge which entail identifying and sharing of best Agency practices.

Finally, beyond ensuring better communications, coordination of efforts, quicker response times, and avoiding unnecessary duplication of efforts, the Regional Hub Structure is the primary vehicle for identifying and sharing best practices cross-divisionally across the regions of the state. In FY 2011-12, a new Regional Hub process for obtaining needed equipment and supplies was implemented resulting in a time savings of nearly 4 months. Staff present at the annual Regional Hub meeting commented on the improved process and were delighted with the quicker response times.

**The DNR Accountability Report: FY 2011-12**  
Category 5 – Workforce Focus

**5.1: How does management organize and measure work to enable your workforce to: 1) develop to their full potential, aligned with the organization’s objectives, strategies, and action plans; and 2) promote cooperation, initiative, empowerment, teamwork, innovation, and your organizational culture?**

The DNR utilizes the Employee Performance Management System (EPMS) to organize and manage the work of the Agency. The universal review date has been in place for several years and requires that the majority of EPMS’s be completed by September 2nd. This due date coincides with timeframes similar to the Accountability Report and the DNR Director’s Performance Evaluation. Success criteria, objectives, and business results found in these documents correspond with the strategies outlined in the Agency’s Strategic Plan. Guided by senior leaders, employees are prepared to respond to initiatives for the Agency. The DNR supports a team environment with senior leaders serving as role models. Improvement opportunities are addressed by multi-divisional committees who are empowered to make recommendations that are presented to the Deputy Directors and Director for consideration. The Director and Deputies communicate this approach to employees through Regional Hub meetings, Deputy Director Meetings, Division meetings, and informal channels of communication.

The Director conducts regional staff visits on a regular basis. During these visits, the Director solicits feedback and encourages questions. In past years, questions involved the economic condition of the state and the impact on the Agency. Questions continue to emerge about staff salary increases. Although the 3% increase awarded by the General Assembly for FY 2012-13 was greatly appreciated, the salaries of many employees still fall behind their counterparts in neighboring states and national trends. Agency staff continues to perform at maximum capacity and take on additional workloads in spite of the significantly reduced workforce (See Figure 7.33).

**5.2: How do you achieve effective communication and knowledge/skill/best practice sharing across departments, jobs, and locations? Give examples.**

The DNR utilizes ad hoc committees and meetings to share best practices. For instance, the Financial Office holds quarterly meetings with Business Managers and supervisors to discuss topics such as the procurement process, payroll processing, human resources information, submission of travel documents, etc. Attendees provide feedback regarding best practices. After a discussion, processes remain the same or are modified.

Knowledge and skill sharing occur informally through cross training and teamwork, and formally through reassignments and promotions. Recognition of an employee’s skills and ability are communicated through the chain of command which may result in a voluntary reassignment of employees into jobs that maximize their skill sets. Most promotions are competitive resulting in several employees expressing interest in the position announcement and participating in the interview process. Many vacancies are announced internally first, allowing Agency employees to compete for new job opportunities.

**5.3: How does management recruit, hire, place and retain new employees? Describe any barriers that you may encounter.**

The Agency recruits at job fairs and other employment venues, through NeoGov, professional journals, professional organizations, and by word of mouth. The DNR slowly began to fill vacancies last year taking a conservative approach to filling positions using state funding sources. The Agency recognizes that entry level salaries are not competitive with public and private organizations. Because of this, the Agency is often unable to hire a candidate due to limited funding and low entry level wages. However, the Director and Human Resources Director, along with some Division Directors, are looking for opportunities to increase staff salaries, implement career paths where appropriate, and increase entry level salaries.

In 2006, the Agency completed a comprehensive study of its administrative employees – the Administrative Salary Study - and working with the State Office of Human Resources, implemented pay actions based on the findings of the study. While these salaries were corrected at that time, the Agency is aware that they should be reviewed again. Before these salaries are reviewed and adjusted, other professional salaries are in greater need of immediate review.

In 2007, the HR Office completed an internal salary study intended to address pay concerns of employees – including DNR biologists and technicians - not covered by the earlier study. This internal study revealed that the DNR pays its employees less than other SC State agencies and the Southeastern Average. Funding was requested for FY 2007-08 and FY 2008-09, but due to the economic downturn and uncertainty, it was denied. With an improved state economy, efforts are underway to review the findings from the 2007 study and pursue increases where appropriate.

During FY 2010-11, the HR Office began another agency-wide salary study as part of the 100-day plan - an initiative implemented by the DNR Board Chairman. In addition, career paths were updated and/or drafted for many professions. These initiatives, along with other compensation practices, are being looked at seriously for implementation.

**5.4: How do you assess your workforce capability and capacity needs, including skills, competencies, and staffing levels?**

Division Deputy Directors assess their workforce capability and capacity through the direct oversight and feedback they receive from managers, supervisors, and staff. Deputy Directors communicate their assessments to the Director and Human Resources Director. Using organizational charts, a brief analysis on needed skills and abilities, and a review of available funding, workforce decisions are made. Staffing assessments occur on a regular - often weekly - basis as needs arise. Additionally, long-term planning is considered with each of these assessments.

**5.5: How does your workforce performance management system, including feedback to and from individual members of the workforce, support high performance work and contribute to the achievement of your action plans?**

The EPMS policy and document were updated in FY 2011-12 to coincide with the three levels of performance adopted by the state. The EPMS document provides feedback to employees, from the rater, during the annual evaluation component of the system. In addition, many supervisors provide informal feedback to employees throughout the rating period. This approach to the evaluation has

resulted in a greater understanding of the success criteria and expectations of the supervisor in determining a performance rating that is above a Meets rating.

The completion and timely submissions of Agency evaluations lets employees know that performance evaluations are valued. Raters are thoughtful in awarding an Exceptional performance rating to employees. The timing of the EPMS document contributes to the achievement of the Agency's action plans as mentioned in 5.1.

**5.6: How does your development and learning system for leaders address the following: a) development of personal leadership attributes; b) development of organizational knowledge; c) ethical practices; and d) your core competencies, strategic challenges, and accomplishment of action plans?**

As a result of the economic downturn in 2001 and again, beginning in 2008, the Agency has been unable to fill a key human resources position, the training coordinator. In addition, funding has been limited to send staff to external leadership training. Nevertheless, the DNR continues to search for ways in which to develop the various employee skills needed to meet the demands of a changing workplace. As an example of this, the DNR utilizes the training offered by the US Fish and Wildlife Service National Conservation Training Center (NCTC), the Budget and Control Board, and various professional organizations which provide leadership and core competency training. The Human Resources Director delivers two training modules - Progressive Discipline/Grievance and EPMS - to supervisors and managers on an as needed basis. In FY 2010-11, the Assistant Director, along with the HR Director, conducted an on-line training needs assessment. As a result, the Human Resources Director updated the Agency's training plan and incorporated essential training topics into career paths. In FY 2011-12, a manager within the HR Office assumed the additional duty of coordinating training.

**5.7: How do you identify and address key developmental training needs for your workforce, including job skills training, performance excellence training, diversity training, management/leadership development, new employee orientation, and safety training?**

Technical competency training is coordinated by the individual Division. For example, the Law Enforcement Division provides extensive technical training to Conservation Officers through Wildlife Basic and annual training events. Attendance at training sessions or programs is generally coordinated by the Human Resources Office which also receives feedback from employees pertaining to their training needs. Ad hoc training programs are offered on a Just-in-Time (JIT) basis. The HR Office provides new employee orientation using both face-to-face delivery as well as video conferencing. The training sessions, including external training programs, are evaluated through a course evaluation form. The NCTC offers leadership programs through face-to-face and on-line delivery systems.

**5.8: How do you encourage on-the-job use of new knowledge and skills?**

The leadership programs provided by the US Fish and Wildlife Service (NCTC) and the Budget & Control Board (CPM) have a project component, which requires on the job application. The Director and Division Deputy Director approve the project before work commences. Skills obtained throughout the program are applied to the project and then to the attendee's job duties. The DNR values training and advanced education. As a result, employees are highly motivated to bring new skills learned back to the work site for immediate application.

**5.9: How does employee training contribute to the achievement of your action plans?**

Several action items listed under Strategy 3 of the Agency's Strategic Plan address employee training. Action items for this Strategy were reviewed and approved during retreat sessions with the Director, Deputy Directors, and Human Resources Director. Without funding to hire a full time training coordinator, the Agency continues to find ways to provide training opportunities as prescribed in its Strategic Plan.

Business Managers meet quarterly for training in the areas of procurement, fiscal responsibilities, and human resources processing. These meetings have been well received and while originally established to provide training for staff, they have taken on a dual role of conveying information in order to improve processes (see 5.2). Limited training will resume pursuant to available funding and staff.

**5.10: How do you evaluate the effectiveness of your workforce and leader training and development systems?**

The Agency's primary means of evaluating leadership training is through direct feedback. Employees are more likely to answer questions regarding the applicability of training programs when they talk with another person. Leadership program attendance evaluations are also treated in this way. The DNR completed the piloting of an on-line leadership program offered by NCTC and has now adopted this program as an alternative for employees' with busy schedules. While positive feedback was obtained for this program, mixed feedback was noted for the Certified Public Manager (CPM) program. Regardless of program, the Agency believes that the learning obtained is critical to the development of future leaders within the DNR. For all such programs, the Human Resources Office will continue to monitor feedback to ensure the efficient expenditure of funds.

**5.11: How do you motivate your workforce to develop and utilize their full potential?**

Employees are provided a motivational environment that allows them to develop and utilize their full potential through training opportunities, support for educational degrees, and commitment by the Director to have a well-qualified workforce. Through the vacancy announcement processes, employees are able to apply for promotional opportunities. Additionally, the evaluation system incorporates a development segment that allows communication between employee and supervisor concerning career goals and developmental objectives. Most supervisors have been trained on the EPMS system by the Human Resources Office and will utilize the new form for FY 2012-13.

**5.12: What formal and/or informal assessment methods and measures do you use to obtain information on workforce well-being, satisfaction, and motivation? How do you use other measures such as employee retention and grievances?**

Historically, the DNR has experienced very low turnover rates indicating that employees have been satisfied with the Agency. However, budget cuts in FY 2000-01 and the cuts in recent years that began in FY 2007-08, have dramatically impacted morale and increased retention concerns. Staff discovered in FY 2000-01 that other employment opportunities offered higher salaries for similar work. With the removal of job security and the feeling of being overworked and underpaid, the sense of loyalty to the Agency declined even though staff remains loyal to the mission of the DNR. The Agency continues to struggle with competitive salaries for the amount and type of work performed.

Staff well being, satisfaction, and motivation are assessed through regional meetings, personal one-on-one visits by the senior staff, open door practices, and turnover data. In an effort to revitalize morale with no available funds (which could be used to provide pay increases or hire needed employees), the Agency has developed its Strategic Plan to recognize extensive experience, dedication, and longevity. Shortly after the creation of this Plan, a survey of such items was conducted and reported on during that year's Accountability Report. Unfortunately, the turnover rate remained high, the complaints regarding low pay continued, and employees continued to struggle between their dedication to the Agency and the needs of their families. While the vast majority of employees are very dedicated to the DNR and its mission, maintaining a high level of morale is difficult when these employees are also attracted to higher wages, better benefits, and comparable work in the private sector or federal government. And, while turnover rates have trended down recently, the consideration of staff needs and desires remains important. The DNR is positive about the future direction of staff salaries.

**5.13: How do you manage effective career progression and effective succession planning for your entire workforce throughout the organization?**

Two of the Agency's Divisions have effective career progression strategies. While the DNR is creating career paths for other professions, career paths will not be implemented unless the funding is available to support the path. In addition to career progression strategies, the Agency internally advertises many of its positions first to its employees in order to provide greater promotional opportunities.

The Agency continues to struggle with succession planning resulting from such high staff reductions. However, some initiatives begun in the 4<sup>th</sup> quarter of FY 2011-12 are beginning to put succession planning on track.

**5.14: How do you maintain a safe, secure, and healthy work environment? (Include your workplace preparedness for emergencies and disasters.)**

The DNR's Safety Committee was created to assist with safety regulation compliance. The Committee achieved compliance through an increased awareness of safety issues, enhanced training of supervisors and employees, and periodic safety checks. To formalize these activities, the Safety Committee developed a written Safety Plan for the Agency. Several years ago when this Plan was provided to Deputy Directors for comment, budget restrictions and limited personnel prevented its final implementation. The Safety Committee was suspended due to budget reductions.

In FY 2010-11, efforts were made to review Occupational Safety & Health Administration (OSHA) standards at various worksites by a part-time employee trained in OSHA standards. It is hoped the inspections can be expanded in the near future.

The Agency conducts various wellness activities to include wellness walks and health screenings, as well as periodically including articles encouraging healthy lifestyles in Agency communications to employees. CPR and first aid training are offered to the DNR's employees intermittently. The Agency is investigating no or low cost training events.



The Agency's full-time Training Coordinator position was lost due to budget cuts in FY 2000-01. This position remains vacant. The additional duty of training coordination, as assigned to a current employee, will allow the Agency to track training events and provide very limited support to the Divisions.

**The DNR Accountability Report: FY 2011-12**  
Category 6 – Process Management

**6.1: How do you determine and what are your organization's core competencies, and how do they relate to your mission, competitive environment, and action plans?**

The Agency bases its core competencies on its Strategic Plan. These core competencies and how they relate to the DNR's mission are as follows:

- Teamwork – The Agency will accomplish its mission and achieve its vision through goal-focused, cooperative efforts that rely on effective internal and external communication and partnering;
- Integrity – The Agency will lead by example, ensuring that its standards are high, and its actions are fair, accountable, and above reproach;
- Dedication – The Agency will maintain a steadfast commitment to the state's natural resources and its mission;
- Excellence – The Agency will always do its best, and continuously strive to improve its processes, activities, policies, operations, and products; and,
- Service – The Agency will provide quality service that meets the needs and exceeds the expectations of the public and its employees.

Two examples of integrating the Agency's core competencies and strategies from this Plan are: the DNR's marketing plan and its education programs. Monthly updates are provided to Agency management to chart the progress of its marketing program. An extensive review of Agency education programs began in August 2008 to align the education programs with core competencies and strategies.

**6.2: How do you determine and what are your key work processes that produce, create or add value for your customers and your organization and how do they relate to your core competencies? How do you ensure that these processes are used?**

The DNR has developed a network of key processes for its products and services to provide effective management of work. The primary processes are based upon the DNR's mission and major strategic goal of enhancing the effectiveness of the Agency in addressing natural resource issues. A wide variety of program delivery processes are related to this goal. The key programs for this goal area include:

- Wildlife management and technical assistance;
- Law enforcement;
- Freshwater fisheries management plans and technical assistance;
- Conservation districts;
- Marine resources fisheries management and mariculture;
- Endangered species and protected elements management;
- The Agency's Wildlife Management Area (WMA) Program (comprising over 1.0 million acres);
- Marine Resources Research Institute;
- Wildlife and freshwater fisheries research;

- Hydrology;
- State Climate Office;
- State Geological Survey;
- Waddell Mariculture Center;
- Yawkey Wildlife Center, and,
- The Southeastern Regional Climate Center.

All Divisions have delivery processes through programs for education and public involvement. Major products and services in this area include natural resources planning and public attitudinal surveys, the DNR's website (which secures public input on management plans and projects), SCMAPS, Hunter and Boater Safety/Education, Take One Make One, Project WET, Project WILD, *SC Wildlife* magazine, the DNR News Program, SC Reel Kids, and Hooked on Fishing Not on Drugs.

Landscape conservation is also a critical component of this strategic goal. Key programmatic design and delivery processes include the Agency's habitat acquisition program, Heritage Trust Program, Scenic Rivers Program, environmental planning, environmental coordination and permitting, conservation districts, drought management, and water resources planning.

These programmatic delivery processes are fundamental to the Agency's mission and are incorporated into the Strategic Plan and the Divisional Operational Plans. Through regular monitoring of required measurements, use of these processes will be realized in the Division Operational Plans. Progress is assessed on a regular basis through monthly staff meetings and EPMS reviews.

**6.3: How do you incorporate organizational knowledge, new technology, cost controls, and other efficiency and effectiveness factors, such as cycle time, into process design and delivery?**

Monthly meetings of the Deputy Directors, Divisions, and Division Section Chiefs facilitate open discussion of program operations and encourage sharing of knowledge and technology applications across process management platforms. Staff is routinely encouraged to assess and contain the cost of operations. When funds are available, attendance at regional and national conferences expose staff to new, innovative methods of implementing programs that result in more effective and/or efficient processes. Through direct contact and input from user groups and constituent-based surveys of customers that use the products and services of these delivery processes, the DNR is able to adjust to changing customer requirements.

**6.4: How does your day-to-day operation of these processes ensure meeting key performance requirements?**

All Agency activities function, or will function, in concert with the Divisional Operational Plans which are aligned with the DNR's Strategic Plan. This will ensure that all processes are meeting key Agency objectives. Through this approach, Divisions will be able to identify performance measurements important to assessing the success of Division tasks. Annual assessments of these determined measurements help managers understand if processes are meeting performance criteria.

**6.5: How do you systematically evaluate and improve your key product and service related work processes?**

As noted, the Agency's Divisions have developed Divisional Operational Plans that include measurements for all product and service related work processes that can be monitored and assessed. The evaluation and improvement component of these Plans occurs at least annually with adjustments to Divisional processes as needed.

**6.6: What are your key support processes, and how do you evaluate, improve and update these processes to achieve better performance?**

The DNR has an effective level of support processes that are used in the production and delivery of the Agency's products and services. These support processes are used to provide needed assistance and guidance for the Agency's major strategic goals. Major support processes in the DNR are:

- Planning, surveys, and performance measures;
- Legal;
- Human resources;
- Legislative affairs;
- Environmental permits/coordination;
- Data processing and information technology;
- Supply and equipment;
- Finance and accounting;
- Procurement;
- Licenses and fees collection;
- Boat titling and registration;
- Graphics, duplicating, and mail services;
- News media and public relations;
- Audio/video productions; and,
- Engineering.

Each of these processes includes highly skilled staff resources that maintain activities and performance based upon the most current information and technological strategies. Additionally, specialized training and career development plans are created and implemented to ensure the highest level of skill development and performance attributes. Through the Agency's workforce planning tools and projects, the DNR is able to improve and update these processes to achieve higher levels of performance. Support challenges are discussed and corrective actions identified during the meetings. Improvements are monitored and reviewed at subsequent meetings. Regular discussions between staff help ensure smooth operations, mutual support, and rapid conflict resolution when needed.

The DNR recognizes that information technology is ever changing and that it is vitally important to keep pace with customers' demands for the latest in business technology. The Agency - having recognized the need to further simplify the process of working with its business community and constituents - recently initiated a major systems conversion project to migrate its boat registration and hunting/fishing licensing programs to a web-based Oracle solution. When completed, this will allow customers to purchase licenses on-line as well as, renew existing boat registrations. Staff continues to refine and convert the web-based violations query and retrieval system, the Agency

invoicing system, deer tag data, license scanning system, and Hunter-Boater Education program data, from Microsoft Access to Oracle. Each of these systems consolidates numerous client databases into a comprehensive database management system that provides more efficient access to data.

**The DNR Accountability Report: FY 2011-12**  
Category 7 – Business Results

- 7.1: What are your performance levels and trends for your key measures of mission accomplishment/product and service performance that are important to your customers? How do your results compare to those of comparable organizations?
- 7.2: What are your performance levels and trends for your key measures on customer satisfaction and dissatisfaction (a customer is defined as an actual or potential user of your organization's products or services)? How do your results compare to those of comparable organizations?
- 7.3: What are your performance levels for your key measures on financial performance, including measures of cost containment, as appropriate?
- 7.4: What are your performance levels and trends for your key measures of workforce engagement, workforce satisfaction, the development of your workforce, including leaders, workforce retention, workforce climate including workplace health, safety, and security?
- 7.5: What are your performance levels and trends for your key measures of organizational effectiveness/operational efficiency, and work system performance (these could include measures related to the following: product, service, and work system innovation rates and improvement results; improvements to cycle time; supplier and partner performance; and results related to emergency drills or exercises)?
- 7.6: What are your performance levels and trends for the key measures of regulatory/legal compliance and community support?

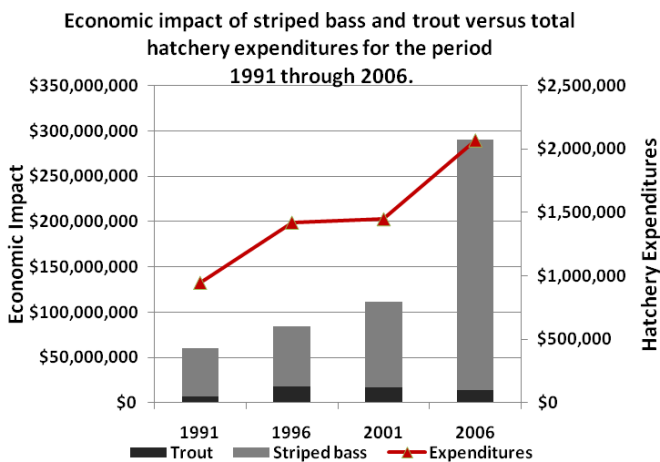
**7.1-7.6:** The DNR has developed the following business results based upon major programs in the Agency that are related to the Strategic Plan. A critical Agency responsibility is to produce statistical and survey information on performance and improvement measures and benchmarking efforts. The DNR recognizes this responsibility and also recognizes the need to improve on previous years' efforts in this area. As stated throughout this report, each Division has or is in the process of reassessing and updating their key performance measures in order to determine meaningful performance and improvement measures for the Agency so that they can be tracked and evaluated through time. Based on this, the agency must, in some cases, supplement quantitative measures with a discussion of qualitative measures.

The core mission of the DNR’s Wildlife and Freshwater Fisheries (WFF) Division is to protect, manage, and sustain the public enjoyment of natural resources through programs that support hunting, fishing, wildlife watching, and other forms of outdoor recreation.

**Program: Wildlife and Freshwater Fisheries**  
**Division: Wildlife & Freshwater Fisheries**

South Carolina’s abundant and well-managed fish and wildlife resources support a large number of hunting and angling constituents. This includes residents and nonresidents that select South Carolina as a hunting and fishing tourist destination. The annual economic impact of wildlife-associated recreation in the state is estimated to be over \$3.7 billion.

The monitoring and quantifying of fish and wildlife populations is difficult and expensive to perform, and explaining the cause affecting these populations are often very uncertain due to the extensive number of variables that can change numbers and conditions. Accordingly, presenting biological data as a means of demonstrating progress can be misleading. The WFF Division finds useful information and tracks progress and success through the understanding of public opinions, attitudes, and behaviors relative to program activities and functions. The collection of these types of data is performed at appropriate intervals via sources that include, but are not limited to: (1) National Survey of Fishing, Hunting, and Wildlife-Associated Recreation (collected every 5 years by the US Fish and Wildlife Service); (2) human dimensions surveys of licensed anglers and hunters, youth, and the state’s general population taken at 5 year intervals (contracted to a professional, reputable, and experienced company with subject related standards); (3) field activity studies of hunters and anglers specific to an area, subject, or activity (i.e.: creel survey, waterfowl hunter survey, deer hunter survey, etc.); and, (4) assessment of the economic value of specific activities or species groups (i.e.: economic modeling of the total impact angling has on the state’s economy and species value).

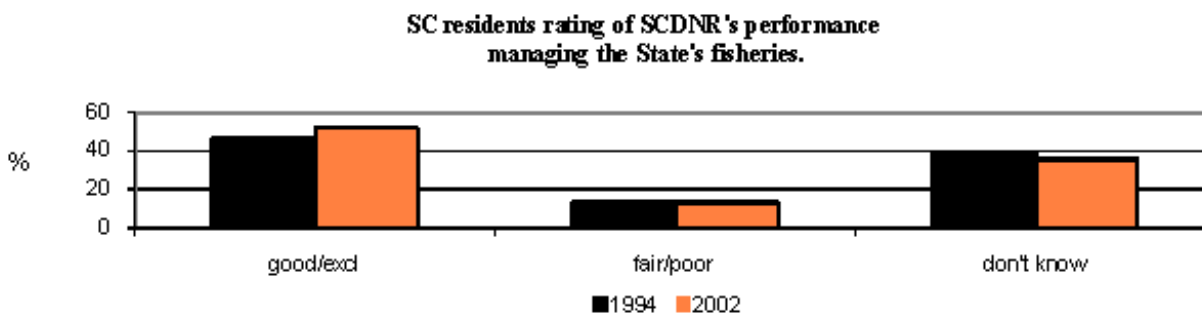


Annually, freshwater fishing has a total economic impact of over \$1.2 billion in South Carolina. Fishing for striped bass and trout generates an economic impact in excess of \$276.5 million and \$14.2 million, respectively. In South Carolina, the products from the DNR’s fish hatcheries support approximately 80% of the striped bass fishery and 90% of the coldwater trout fishery. The total annual cost for the operation of the Agency’s freshwater hatcheries averaged approximately \$1.6 million from 1996 to 2006. (See Figure 7.1) The 2006 economic impact of striped bass and trout fishing alone, when compared against the cost of the entire fish hatchery program, yielded a cost benefit ratio of 138 to 1 to South Carolina’s citizens.

(Figure 7.1)

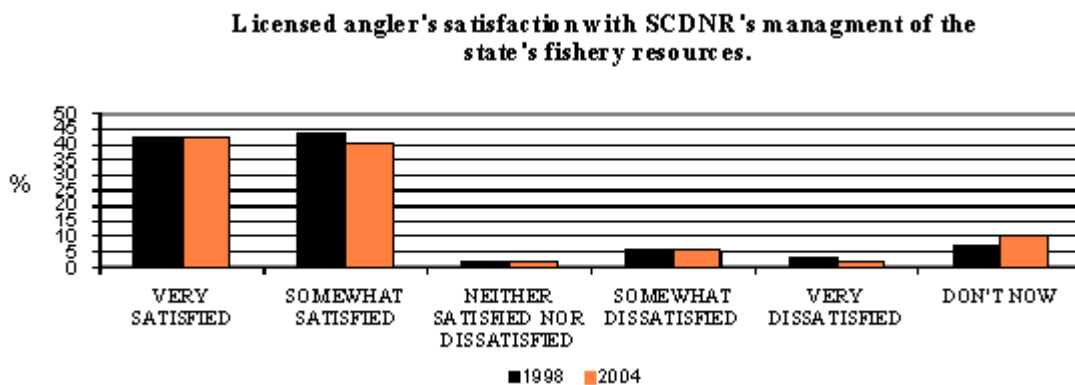
The Freshwater Fisheries Section has conducted surveys of customers concerning hatchery products, technical assistance, and general angler attitudes. These surveys and the public attitudinal information provide a basis for the Strategic Plan update and detailed feedback from the public as to where resources need to be focused in the future. These public opinion surveys are an important management tool for the Agency and provide a solid basis for developing a comprehensive planning process, as well as developing budgetary recommendations for the allocation of resources in the DNR.

Survey results of the residents of South Carolina from 1994 and 2002 indicate that the percentage of the population who feel the Agency does a good or excellent job managing the state’s fisheries increased over the period from 47% in 1994 to 52% in 2002. (See Figure 7.2) Over roughly the same period, the percentage of residents who indicated that they did not know how the DNR performed decreased from 39% in 1994 to 35% in 2004. Over the eight year period from 1994 to 2002, South Carolina residents became more aware of the Agency’s performance in managing the state’s fishery resources and in their opinion the DNR’s performance improved.



(Figure 7.2)

In a 2004 survey of fishing license holders, active anglers were told that the Agency was responsible for the protection, conservation, and enhancement of the state’s fisheries resources while providing recreational fishing opportunities. Active anglers were then asked if these responsibilities were appropriate and if they were satisfied with the DNR’s performance in meeting their responsibility. (See Figure 7.3) Eighty-nine percent (89%) of active anglers thought the responsibilities were appropriate while only 1% did not agree. Eighty-two percent (82%) of active anglers were satisfied with the performance of the DNR at meeting its responsibilities to manage the state’s fisheries. Only 6% of licensed anglers were dissatisfied.



(Figure 7.3)



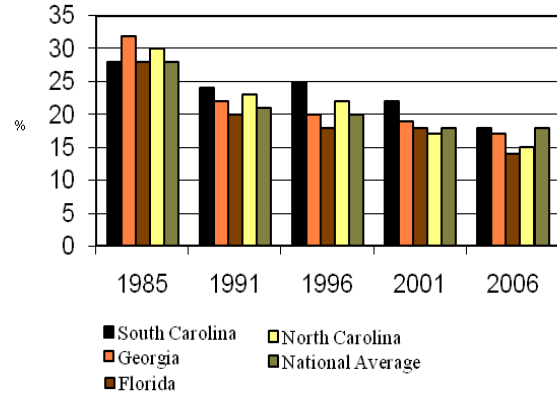
While participation in hunting and fishing has declined nationally since 1985, the decline in South Carolina has been slower than in neighboring states and the nation. (See Figure 7.4) For instance, the state trailed its neighbors and the national average in the percentage of its population participating in hunting and fishing in 1985.

However, from 1991 through 2006, a larger percentage of South Carolina's residents had hunted and fished when compared to residents of Georgia, Florida, and North Carolina. South Carolina's participation rate in 2006 dropped to the national average after having been higher than the national average since 1991.

Participation in wildlife watching declined in South Carolina between 2001 and 2006. During this same period, participation increased in Georgia, Florida, and North Carolina. The national rate of participation remained steady at 31%. (See Figure 7.5)

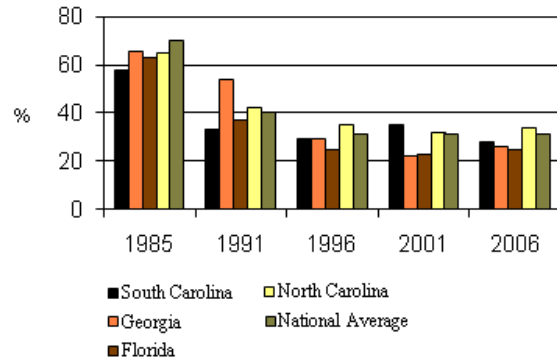
Wildlife related recreation in South Carolina declined between 2001 and 2006, but remained higher than the national average. The rate of participation in South Carolina's neighboring states showed slight increases during this period. (See Figure 7.6)

Participation in fishing or hunting for SC, GA, FL, NC and the national average from 1985-2006. Expressed as a percentage of the population 16 and older.



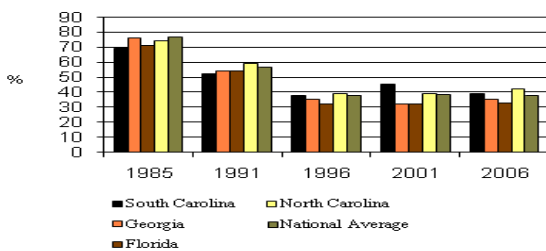
(Figure 7.4)

Participation in wildlife watching for SC, GA, FL, NC and the national average for the period 1985-2006. Expressed as a percentage of the population 16 and older.



(Figure 7.5)

Participation in wildlife related recreation for SC, GA, FL, NC and the national average for the period 1985-2006. Expressed as a percentage of the population 16 and older.



(Figure 7.6)

**Supplemental Accountability Section (Wildlife & Freshwater Fisheries):**

**Nongame Wildlife and Natural Areas Fund Reporting (FY 2011-12):**

***In accordance with Section 12-6-5060(D), the Department of Natural Resources shall make a report to the General Assembly as early in January of each year as may be practicable, which must include the amount of revenue produced by the contributions and a detailed accounting of expenditures from the Nongame Wildlife and Natural Areas Fund.***

*During FY 2011-12, the beginning cash balance was \$349,116. Revenues generated during the year included \$43,174 from South Carolina Department of Revenue (SCDOR) Check Off, \$60,677 from License Plate sales from the South Carolina Department of Motor Vehicles (SCDMV), and \$11,665 from interest, donations, and other sources for a total available balance of \$464,632. Expenditures totaled \$198,585 in the areas of Program Support (\$56,335), the Sea Turtle Project (\$39,125), and the Reptile and Amphibian Project (\$103,125). A balance of \$266,046 remained and was available beginning FY 2012-13.*

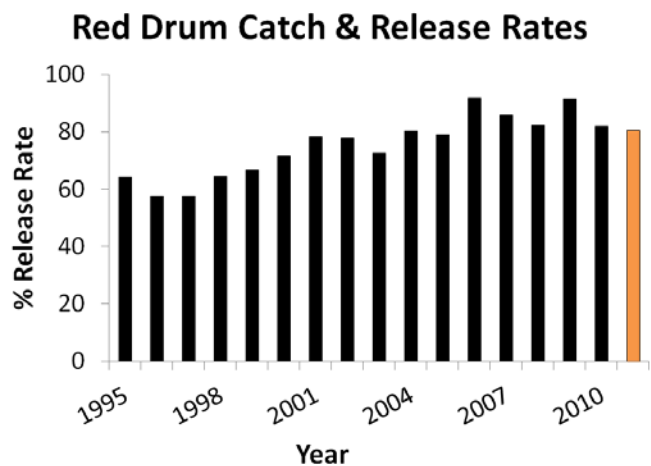
The Marine Resources Division (MRD) is the chief advocate for, and steward of, the state’s marine resources. The Division’s goals include: (1) achieving a greater understanding of the state’s marine resources; (2) proactively managing the state’s marine resources and habitats for sustainable use while enhancing the status and quality of those resources; (3) promoting a greater understanding and appreciation of the state’s marine resources; and, (4) enhancing access to the state’s marine resources.

**Program: Marine Resources**  
**Division: Marine Resources**

Marine recreational fishermen represent a large and significant portion of the DNR customer base. This customer base represents a diverse group of both consumptive and non-consumptive users including anglers targeting finfish, oysters and clams, shrimp, and crabs. The customer focus in this case can be broadly summarized as: (1) to understand the long- and short-term status and trends of SC marine resources; (2) to protect, conserve, and enhance fishing opportunities and access for SC citizens and guests; and, (3) to provide outreach and education to constituents on coastal natural resource conservation priorities.

In order to meet these needs, the Marine Resources Division utilizes staff and funding opportunities from a wide variety of sources. The MRD is a regional leader in marine resource management generating \$7.05 in federal and non-federal grants and contracts for every state appropriated dollar.

The South Carolina Marine Gamefish Tagging Program is an angler-based project that utilizes recreational anglers for deploying external tags in marine game fish. In addition to providing fisheries managers with valuable information on fish stocks, the Program also has an important outreach component which seeks to promote catch/tag and release, and overall resource conservation. In the past year, 220 certified fish taggers tagged 441 fish considered as priority species. With the help of recreational fishermen, 95 tagged fish were reported recaptured, with 55% of those recaptures being red drum. A logbook project associated with the public tagging program provides anglers with another opportunity to volunteer by recording information about their fishing activity. During the reporting period, 17 anglers participated in this project by documenting 104 trips and recording 1,242 measurements from target species including red drum, spotted seatrout, flounder, and sheepshead. As a result of these efforts, SC fishermen have been releasing alive, 80% of the red drum (calendar year, 2011), the most popular recreational finfish, promoting angling ethics, and conserving this gamefish for future generations. (See Figure 7.7) Fishery independent monitoring conducted by the MRD provides some evidence that the estuarine population of sub-adult red drum is highly variable with several years of poor year classes followed by occasional strong year classes. This may be offset, in part, by the red drum stocking program which used saltwater fishing license and other funds, to add 280,104 2-inch fingerlings in the Charleston Harbor in 2011. In addition to red drum, almost 125,000 2-inch striped bass fingerlings and over 22,500 8-



(Figure 7.7)

inch genetically marked fingerlings were produced and stocked in South Carolina waters in 2011. Spotted seatrout were produced in 2011 for developmental activities including the production of 319,283 2-inch fingerlings for use in genetic identification, transportation stress, and temperature tolerance experiments. So far in 2012, 300,000 2-inch juveniles have been released in Charleston Harbor.

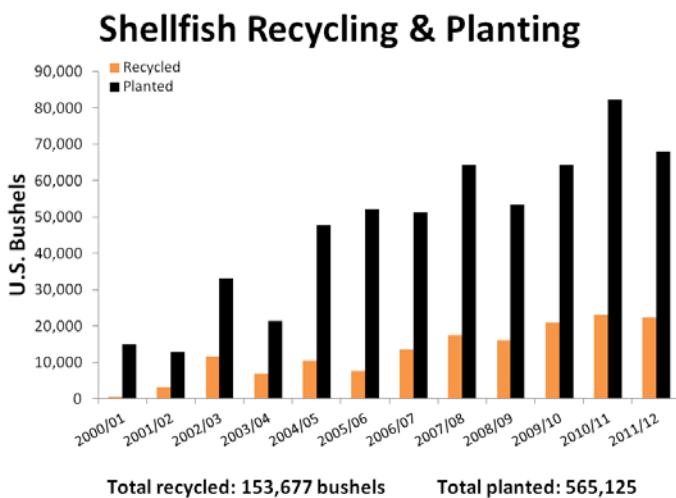
Saltwater recreational fishing license holders represent a large portion of the DNR customer base. This customer base is extremely important, not only because of its size and continued growth, but also because it helps support a number of recreationally oriented programs through the revenue created by license sales.

Boat-based recreational fishermen have been required to have a saltwater recreational fishing license since July 1992. Starting in July 2009, shore-based anglers and individuals who recreationally shrimp without bait or crab have been required to have saltwater recreational fishing licenses. Now that these groups are required to have a saltwater fishing license, data can be collected from them through surveys which will assist in better management decisions. Starting in July 2010, the DNR began offering a 3-year resident and non-resident recreational fishing license, thereby, providing more licensing options to recreational fishermen. During FY 2011-12, there were 139,231 resident (down 5.6%) and 76,056 non-resident (up 1.0%) saltwater recreational annual, 14-day, and three-year fishing licenses sold. Saltwater recreational fishing license sales declined slightly from FY 2010-11 to FY 2011-12, likely due in part to the advent of the three year fishing license, which allows anglers the convenience of not having to purchase a license annually. However, the number of total participants in saltwater recreational fisheries has remained relatively stable.

Three programs that are excellent examples of how the MRD fulfills its obligation to these SC saltwater fishing license holders by increasing and improving saltwater fishing opportunities are: (1) the Oyster Shell Recycling Program, the (2) Marine Artificial Reef Program, and the (3) Recreational Shore-based Angler Fisheries Access Improvement Program.

The Division’s oyster shell recycling program seeks to recover discarded shells and return them to the marine environment to restore, enhance, and create oyster habitat. Shells attract larval oysters that grow into new oyster reefs which provide essential fish habitat and perform ecological services such as filtering water and removing nitrogen. In addition to planting and recycling shell, the Program also monitors oyster recruitment to planted reefs to assure effectiveness and accountability and involves the public in habitat restoration through the award-winning “SCORE” community-based habitat restoration program. In FY

2011-12, 22,307 US bushels of shells were recycled from caterers, restaurants, and the general public, resulting in savings of over \$50,000. Five new drop-off sites were opened last year, including the first two sites that are not on the coast. A total of 49,281 bushels of oyster shells was planted on State and Public Shellfish Grounds between July 1, 2011 and June 30, 2012 to create ~ 5 acres of oyster habitat for commercial and recreational harvest. (See Figure 7.8)

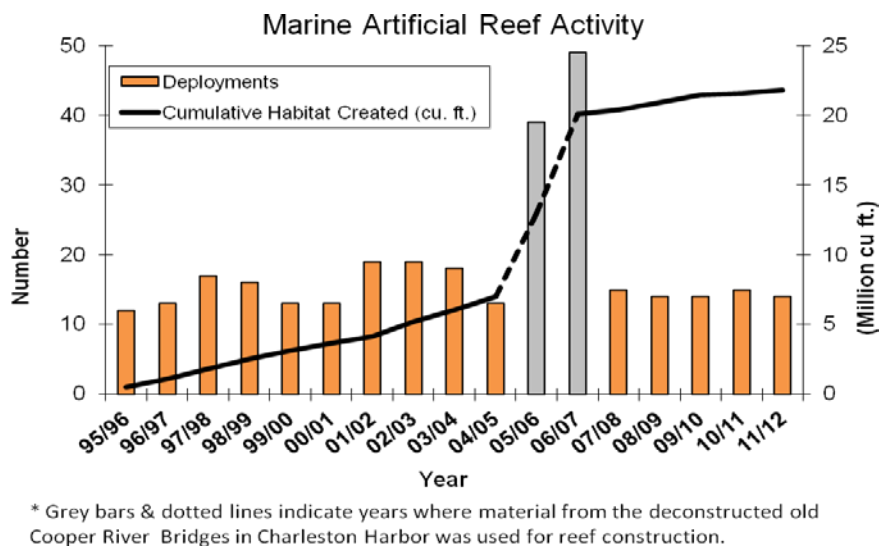


(Figure 7.8)

Additionally, 5,370 bushels of shell were planted in Charleston Harbor (0.54 acres) and 6,705 bushels were planted in the South Edisto watershed (0.734 acres) to create fish habitat and

protect eroding shorelines. In addition to these large-scale plantings, the SCORE program planted ~6,700 bushels to create 0.32 acres of oyster reefs at 12 coastal sites with the efforts of more than 2,225 community volunteers. The saltmarsh propagation program (Seeds to Shorelines), in partnership with the SC Sea Grant Consortium and the Clemson Extension Service, worked with ~850 students from 11 schools to grow and transplant *Spartina* seedlings behind oyster reefs at 7 sites. Shellfish resource maps are updated annually and are available online at <http://www.dnr.sc.gov/GIS/> while harvest maps are available at <http://www.dnr.sc.gov/marine/shellfish/>.

The Marine Artificial Reef Program continues to enhance and expand its 49 permitted reef sites. Artificial reef construction has continued on the state’s permitted artificial reef sites with 14 material deployments on 13 different reef sites this past fiscal year, comparable to the prior year’s number. Total cubic feet of new habitat created was slightly higher than the prior year but still below historical averages. Total reef habitat accessible to saltwater anglers now exceeds 21.9 million cubic feet. (See Figure 7.9)



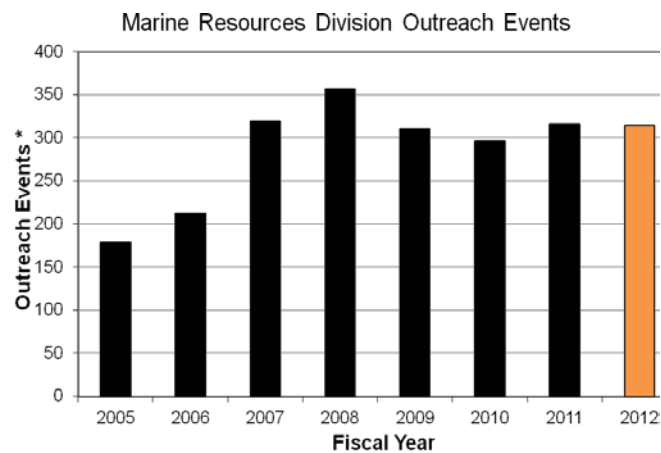
(Figure 7.9)

In order to provide improved and additional areas for anglers to participate in recreational fishing into saltwater from shore based facilities, the DNR now partners with local counties, municipalities, and other agencies to construct or enhance structures such as fishing piers and docks. A new Recreational Shore-based Angler Fisheries Access Improvement Program is currently underway and arrangements have already been made with Jasper County and the Charleston County Park & Recreation Commission to provide assistance in the construction of new fishing piers in these areas.

The SC seafood industry is an important component of the state’s coastal economy and heritage. It plays an important role in the lives of 1,500-2,000 commercial fishermen and wholesale and retail seafood dealers, another significant component of the MRD customer base. It also provides a foundation for the state’s growing coastal tourism industry. During calendar year 2011, the total weight of wild saltwater fishery products landed in this state was 12.1 million lbs. with an ex-vessel value of \$23 million. The customer focus in this case can be broadly summarized as the desire to ensure sustainable, economically viable marine fisheries. Significant components of the SC seafood harvest are shrimp and blue crabs. From FY 2007-08 through FY 2010-11, trawler license sales remained relatively stable with an average of 433 licenses sold annually. However, during FY 2011-12, trawler license sales increased 18.8% with 498

licenses sold. Increases were seen in both resident (increase 13.1%) and non-resident (increase 31.5%) license sales. Rising fuel costs and declining shrimp prices have created an economic hardship for commercial shrimpers causing reduced fishing effort among the fleet. The commercial shrimp season typically opens in spring and closes sometime after New Year’s Day depending mainly on environmental factors. Landings are comprised largely of two species, white and brown shrimp. Due to favorable environmental conditions, the 2012 shrimp season opened earlier than usual which likely influenced the increase seen in FY 2012 trawler license sales. In addition, the fall 60-day recreational baiting fishery of shrimp was comprised of 8,051 licensed fishermen in fall 2011. After early rapid expansion, effort in the baiting fishery has decreased in recent years; however, the fishery continues to account for a substantial annual harvest.

The commercial blue crab fishery had 393 licenses (15 nonresident) in FY 2011-12, representing a decrease of 36 (or 10.1%). This fishery operates year round, and fishermen are not limited in the number of traps they may license. The MRD utilizes not only licensing and permitting requirements, but also good science and management to help sustain the shrimp and blue crab fisheries.



\* Outreach events include presentations, seminars, workshops, and other education

(Figure 7.10)

Education and outreach efforts are also an important component of the Division. In FY 2011-12, the Division conducted 314 outreach events for a variety of audiences ranging from scientists, to students, to community decision makers. In addition to these outreach events, staff have also actively participated in the South Carolina Marine Educators’ Association, local science and career fairs, and hosted career shadowing for students.

The recorded outreach efforts by the MRD have remained relatively stable over the past four years with over 300 events conducted each year. (See Figure 7.10)

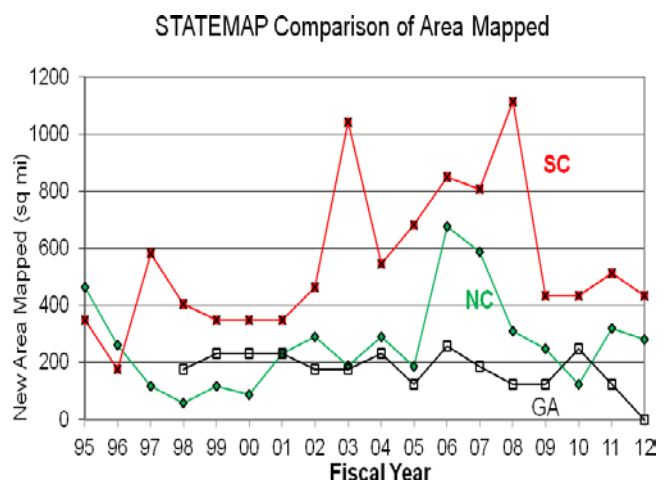
The mission of the Land, Water and Conservation (LWC) Division is to understand and protect the state’s land and water resources through scientific study and analysis, planning, management, conservation, and education activities.

**Program: Geological Survey**  
**Division: Land, Water & Conservation**

The Geological Survey is the sole-source provider of geologic map information to the public in the state. Geologic mapping is partially supported by the Federally-legislated STATEMAP program, under which matched funds are applied to defined socioeconomic needs for geologic information. This program area also is funded by the U.S. Department of Energy, NOAA, and outside sources. Presently, the ratio of generated external dollars to state funding remains for a second year at approximately 3:1.

Geologic mapping, which consists of original research and digitization of geologic information, is a core competency. Collection and distribution of geological information continue to be long-term baseline measures in the operational plan. Stakeholder and STATEMAP Advisory Committee recommendations are integrated with DNR-established priorities to define critical socio-economic needs for new geologic information. Physical change, economic development, land-use planning, and environmental protection also are major determining factors in the establishment of annual work priorities. External funding is sought to help accomplish those established priorities and to increase the quality of the product. Availability of new information represents a proactive approach and complements the long range plan by integrating geologic information into the decision making process at the state and county levels.

During FY 2011-12, mapping priority was given to the Coastal Zone and to the lower Savannah River basin. Additional map information also was developed in the region of the South Georgia rift (Coastal Plain) and Inner Piedmont. Approximately 434 square miles were mapped. In comparison, North Carolina mapped less than 300 square miles, and Georgia seems not to have completed any new mapping this cycle. Presently, production time for development of new map products is 23 months (planning to completion) and continues to be controlled by external funding, e.g. STATEMAP. The Governors’ South Atlantic Alliance is funding a continuation of the physical-change pilot project to digitize estuarine features over an additional 300 square-mile area along the coast. Digitized results will be used along with other partner states (NC, GA, and FL) to develop a shoreline vulnerability index for use by state and local planners. New this year is the Broad River Sediment Budget project. This is a 4-year, externally funded project to understand sediment sources, movement, and deposition within the Broad River watershed. Results of this study will be used by contributing partners to address issues of excess sediment.



(Figure 7.11)

Digitization adds value, and electronic products are demanded by customers. Electronic products also increase perception and distribution of the map information. Thirteen (13) new map products were digitized; 4 map products were digitally updated; and 17 derivative map products were produced from existing digital data sets. At the end of FY 2011-12, digital products covered 40% (227 of the 566 quadrangles) of the state. Considerable effort was put forth in the development of a digital drill-hole database. In coordination with the Hydrology Section, SCGS is developing a comprehensive well-database model for use in Oracle. Currently database programming and testing are underway.

**Program: Aquatic Nuisance Species**  
**Division: Land, Water & Conservation**

The purpose of the South Carolina Aquatic Nuisance Species (ANS) Program (Section 49-6-10) is to prevent, identify, investigate, manage, and monitor aquatic plant problems in public waters of the state. The Program works closely with the Aquatic Plant Management Council (Section 49-6-30) and funding is cost-shared between available federal, state, and local (public and private) sources. In the absence of native predators and diseases, invasive species may develop very large populations that create severe ecological and economic problems. When such invasions occur in the state's lakes and rivers, they can disrupt whole aquatic ecosystems and impair important municipal, industrial, agricultural, and recreational uses in South Carolina's waterways.

During FY 2011-12, ANS operations were conducted on 27 different management sites at a cost of \$201,849 using local and State Water Recreation Resource funds. Field operation expenditures for the DNR decreased by 26% from FY 2010-11, while acres controlled (1,228.48) also decreased by 40%. The increased efficacy of newer herbicides, better coordination between Agency staff across division boundaries, communication between agencies, and early detection rapid response protocols all combined to result in better coordinated control efforts thereby bringing about a decrease in state waters of invasive species. In all, 47% of total costs for control in South Carolina were absorbed by the local entities, with 46% of the work funded by State Water Recreational Resource funds and 7% funded by Federal Grant monies.

A successful control effort was the stocking of Triploid grass carp in Lake Greenwood in FY 2009-10 to control an ever increasing hydrilla population. This effort has had good success as hydrilla acreage numbers plummeted and no herbicide control efforts were needed in FY 2011-12. Increased stocking of the Santee Cooper Lakes and Goose Creek Reservoir was accomplished with the same goal in mind. Goose Creek nuisance species acreage has stabilized and is on the decline while only Santee Cooper has a slowly increasing presence of invasives. Santee Cooper which received no cost share funding, completed 3,020 acres at a cost of \$976,535. Acreage increases on Santee Cooper were almost entirely based on a significant expansion of a new highly invasive species, *Nymphoides cristata* (crested floating heart).

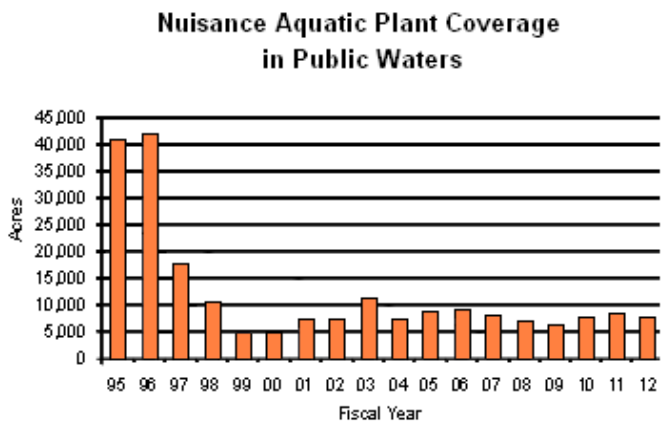
Phragmites control was a key component of habitat restoration for waterfowl and other species and resulted in 390 acres of control efforts which continues a downward trend from previous years because of the efficacy of previous control. Other efforts, which are ongoing, include planting initiatives for beneficial vegetation in several water bodies in South Carolina. This process will help determine the suitability of certain enhancement techniques which can be utilized in future efforts and will hopefully increase the survival rate of those natives which are beneficial plants in state waters. Also, Program expertise has been instrumental in developing plans for federal properties which provides control on federal management areas and decreases the likelihood of invasive species spreading into state waters.



To enhance public trust in the Agency, the current Aquatic Plant Management Plan is made available yearly for public comments and questions. All data pertaining to management activities is in a useable GIS format and information about current treatments is readily available through internet access of the website. Efforts have also been increased to educate the public on Agency activities that slow the spread of invasive species by utilizing specific guidelines. These guidelines have been accepted nation-wide and are presented to the state public in a variety of ways including educational ANS signs at public boat ramps, educational information at public events, updated web information, and development of ANS PSA billboards.

The ultimate success of the Program is measured by the presence of aquatic nuisance plants in the state's public waters. However, this number can be deceiving as new infestations are discovered and existing

populations ebb and flow with changes in climate. During the past year, the total area infested with nuisance aquatic vegetation was approximately 7,570 acres. This represents a 9% decrease in coverage from FY 2010-11. Specific problem areas are in the Santee Cooper system caused by crested floating heart, increased hydrilla acreage at several state lakes, in the Santee Cooper system, and at several SCPRT lakes. It still represents a significant decrease (82%) from peak coverage in FY 1995-96 of 41,698 acres.



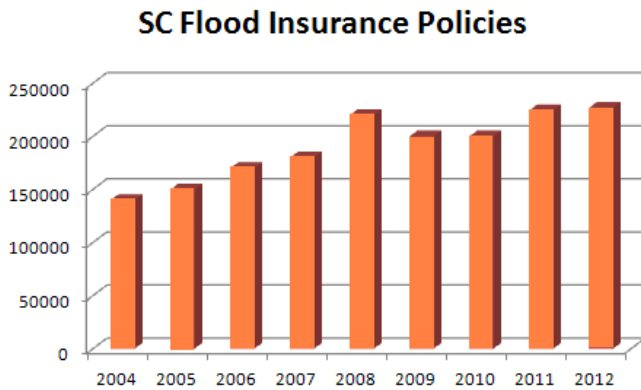
(Figure 7.12)

**Program: Flood Mitigation**  
**Division: Land, Water & Conservation**

The Flood Mitigation Program's purpose is to minimize the impact of floods and reduce flood-related disaster costs in South Carolina. The Program provides technical assistance to communities through the administration of the National Flood Insurance Program and through financial assistance for flood mitigation planning and projects using funding from the Federal Emergency Management Agency (FEMA). The Program also receives funding from FEMA to update and modernize Flood Insurance Rate Maps for the state.

During FY 2011-12, Program staff trained over 100 community officials and professionals, provided technical assistance to the 221 participating communities and citizens, and delivered information with over 27,000 individual page requests of the website. The Flood Mitigation Program has begun a new era in floodplain mapping. The DNR is participating in the FEMA Risk MAP program that will provide more accurate GIS-based Flood Insurance Maps based on HUC 8 watersheds. Also, GIS-based products will be produced that assist communities in identifying risk and mitigation opportunities as well as assist in relaying flooding risks to their citizens. FEMA has awarded the DNR approximately \$32 million to support the effort. To date, 39 Counties are benefiting from new preliminary Digital Flood Insurance Rate Maps (DFIRM) which have been modernized providing greater accuracy, easier use, and online access by the public. The mapping process based on HUC 8 watersheds has been initiated in the Lower Catawba Watershed and the Seneca Watershed.

The first round of the statewide flood map update is projected to be completed in 2013. Every county in SC has either received an updated DFIRM or has a new Flood Insurance Study underway.



(Figure 7.13)

One measure of Program effectiveness is community participation in the National Flood Insurance Program (NFIP). Two hundred and twenty-one communities now participate in NFIP, with South Carolina ranking sixth in the nation for flood insurance policies in effect. While there had been a steady decrease in policy counts since FY 2007-08, in FY 2010-11 there was an increase in the number of policies. A further increase in the number of policies occurred in FY 2011-12 to 226,807 from 224,349 in FY 2010-11. This expansion could be attributed to the increase in awareness of flood risk. (See Figure 7.13)

**Program: Hydrology**

**Division: Land, Water & Conservation**

During FY 2011-12, in accordance with legislatively described duties, the Hydrology Program focused on water policy and updating the State Water Plan. Numerous presentations were made at conferences, stakeholder meetings, and the DNR board meetings advocating for the need to develop regional water management plans and describing how the water plans could be developed for each major river basin. A key component of the regional plans was determined to be the creation of computerized hydrologic models that simulate surface-water availability throughout a basin. This year the Hydrology Program was provided \$2,000,000 in state-appropriated funds to begin a 2-year process of developing those models for eight basins across the state. Staff hydrologists will be working in close association with environmental consulting firms and with DHEC to ensure that the models are developed to specification.

The Hydrology Program also continued to work with the Savannah River Basin Advisory Council to develop water-use policies, drought contingency plans, and to resolve other water-related issues in the basin. The Program worked with DHEC, Georgia EPD, and The Nature Conservancy in an effort to reach an agreement with the Corps of Engineers to initiate a \$1,000,000 project that: (1) would evaluate alternative release schedules during droughts for the lakes in the Savannah River basin and, (2) that would revisit the Corps' current drought contingency plan for the basin to determine if the plan can be more effective at balancing the needs of stakeholders in the basin. To help in meeting the overall goals of the project, \$100,000 in state-appropriated funds were provided for project development.

Several Program staff members actively participated in Duke Energy's Keowee-Toxaway Federal Energy Regulatory Commission's (FERC) relicensing project, in which they completed studies of water supply and reservoir operations modeling. Program staff received training on water-management models that are being developed as part of the FERC relicensing process. Program staff also provided technical assistance to the Environmental Office regarding numerous projects, including a review of two wetland mitigation banks and relevant management recommendations, and a review of water-availability issues and water-balance models related to Duke Energy's proposed new nuclear power plant on the Broad River, to ensure

that the river would be adequately protected. Technical assistance also was provided to the Environmental Office on low flow statistics and issues on the Broad River associated with the proposed new nuclear units at SCE&G's VC Summer Plant. Similar assistance was provided on a potential reservoir expansion project in Lancaster County.

Program staff continued to assist the State Climatology Office in assessing the occurrence and severity of drought conditions throughout the state by providing stream flow data and lake level information. Program staff also continued to study alternative statistical methods to define drought severity and to expand/improve the use of stream flow and ground-water levels as drought indicators.

A report, *Ground-Water Levels in South Carolina, 2006-2010*, was completed. It consists of hydrographs and an analysis of water-level trends in the major aquifers of the State, as determined from 109 wells then available. To assess water-level conditions in the Middendorf aquifer, Program staff and cooperators measured water levels in 120 wells over a two-month period to update the potentiometric map of the aquifer. To expand the monitoring system, Program staff designed and oversaw the construction of a well-cluster site at Lee State Park in Lee County. Three wells, from 75 to 240 feet deep, were drilled in the Black Creek and Middendorf aquifers and were equipped with automated water-level recorders to track changes in ground-water availability. A 1,500-foot test hole was also drilled at Wee Tee State Forest in Williamsburg County, and a 650-foot well was constructed to monitor water levels in the Black Creek aquifer. Data from these monitoring wells will be used to assess aquifers and confining units in the area

During the past fiscal year, ground-water levels were monitored in 109 wells, saltwater intrusion in five wells along the coast, and pond levels at one Carolina bay. A total of 606 well records were added to the Coastal Plain well database. Program staff responded to 317 requests for technical assistance during the year. Geophysical logs were made in 10 wells. Finally, a computerized database of ground water data and well information collected from more than 30,000 wells is being developed by Program staff.

**Program: State Climate Office**  
**Division: Land, Water & Conservation**

During FY 2011-12, the State Climate Office (SCO) fulfilled the Program's mission through outreach, research, publication dissemination, and technical and severe weather assistance provided to state agencies and the citizens of SC (Sections 49-25-10 et seq., Code of Laws of South Carolina, 1976, as amended). The *South Carolina Drought Response Act* directs the SCO to administer a statewide drought response program. During FY 2011-12, the SC Drought Response Committee was convened eight times to review the drought conditions and issue declarations. Periodic drought updates were distributed by email to committee members and list serve subscribers. The Drought Response Program requires regular correspondence with 48 Drought Response Committee Members, four major power companies, and over 2,000 water utilities. Correspondence includes drought projections, official declarations, and suggested response.

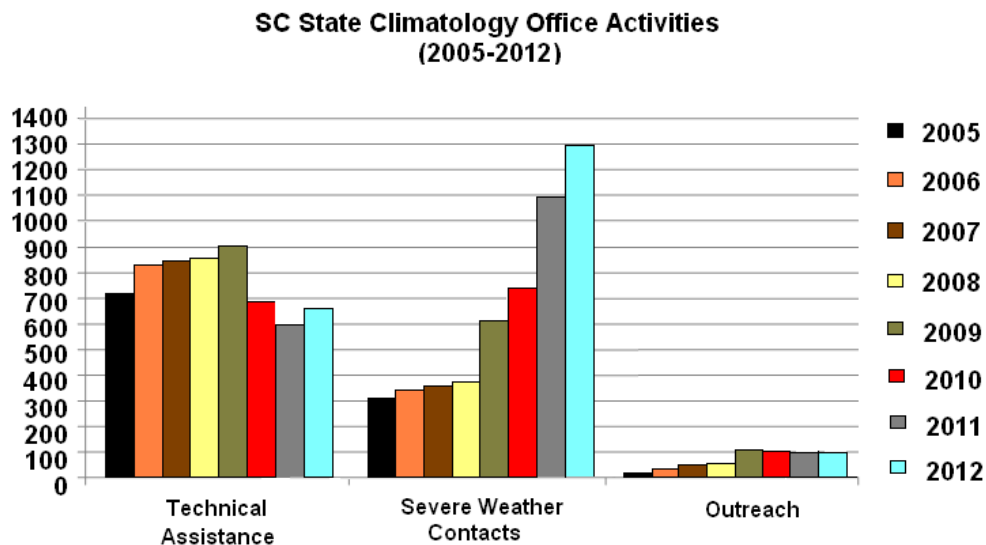
As a member of the State's Emergency Response Team, Program staff participated in quarterly hurricane task force meetings and training. SCO staff expanded the Weather Alert email notification system that is focused on severe weather notification and tropical advisories. The address list increased from 1,113 in 2011 to 1,302 in 2012. The breakdown of subscribers is 2% Agriculture, 13% Commercial, 7% Education, 48% Government, 3% Health, 1% Media, 25% Personal Interest, and 1% Utility. Program staff issued 9 weather outlooks, 15 severe thunderstorm/tornado advisories, 52 tropical advisories/updates, and 15 winter weather advisories. SCO staff participated in 6 SC Emergency

Management Conference Calls for Hurricane Irene and one call for potential winter weather in February, 2012.

The Program is a cooperating institution in the Carolinas Integrated Sciences and Assessments (CISA) project, which integrates climate science and decision-making in North and South Carolina. Through a joint project with CISA, SCO utilized an online application to systematically identify and document the nature and scope of requests received. Customers were surveyed to determine how they integrate climate information into their day-to-day operations as well as their long-term plans. Program staff also completed a research project extending the state’s trend analysis through 2010 for 70 USHCN Southeast temperature and precipitation stations.

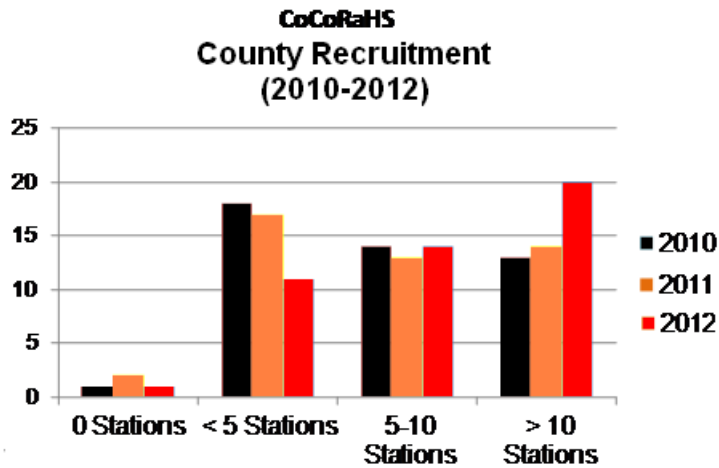
Program staff provided 41 presentations to various organizations and participated in 46 conference calls (or webinars) during FY 2011-12. During FY 2011-12, Program staff logged 479 phone and email requests for climate data, answered 99 media inquiries for climate data, and averaged 10,000 monthly information retrievals from the SCO web site. Program staff assisted the Agency’s Law Enforcement and SC Highway Patrol with 39 accident investigations.

Program staff authored and archived a weekly and annual state weather summary documenting temperatures, precipitation, and extreme weather events. The summary was published during the growing season by the USDA in their Weekly Weather and Crop Progress Report. The State Climatologist chaired the Agency’s Climate Change and Natural Resources Technical Working Group. A summary of SCO activities from 2005-2012 is shown in Figure 7.14.



(Figure 7.14)

On March 1, 2008, South Carolina, in conjunction with the National Weather service, joined a national effort to establish a volunteer program of precipitation observers. The program is called the Community, Collaborative, Rain, Hail and Snow Network (CoCoRaHS). Through a grant from the Harry Hampton Foundation, Program staff has expanded the network by providing complimentary gauges to targeted groups in counties with limited observers. SCO’s goal is to have 10 observers spatially distributed throughout every county. Figure 7.15 shows the number of counties with 0 stations, less than 5 stations, 5 to 10 stations and greater than 10 stations. During the fiscal year, SCO produced the first edition of a quarterly CoCoRaHS newsletter.

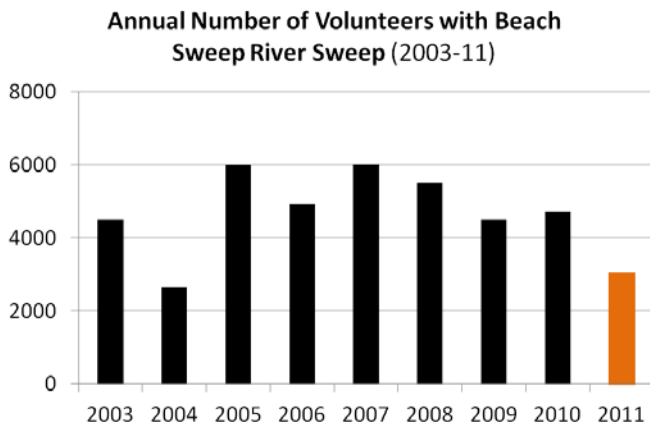


(Figure 7.15)

**Program: Habitat Protection**  
**Division: Land, Water & Conservation**

The Habitat Protection Section includes the Heritage Trust Program and the River Conservation Program. The Program’s mission is to protect land through the acquisition of significant natural and cultural properties and work with communities through community-based planning efforts to protect and manage river corridors and administer the State Scenic Rivers Program. Another objective of the Program is to ensure that lands acquired by the DNR are compatible with the Agency’s mission and can be easily incorporated into the existing management program.

Over this past year, the funding for the Heritage Land Trust Fund (HLTF) decreased significantly from previous years. The funding source for the HLTF is the documentary stamp tax which comes from the sale of real estate in South Carolina. Due to the downturn in the economy, revenue fell sharply. Due to these circumstances, no property was acquired by the DNR’s Heritage Trust Program during this past fiscal year. However, there are currently 87,137 acres protected in 74 heritage preserves in South Carolina.



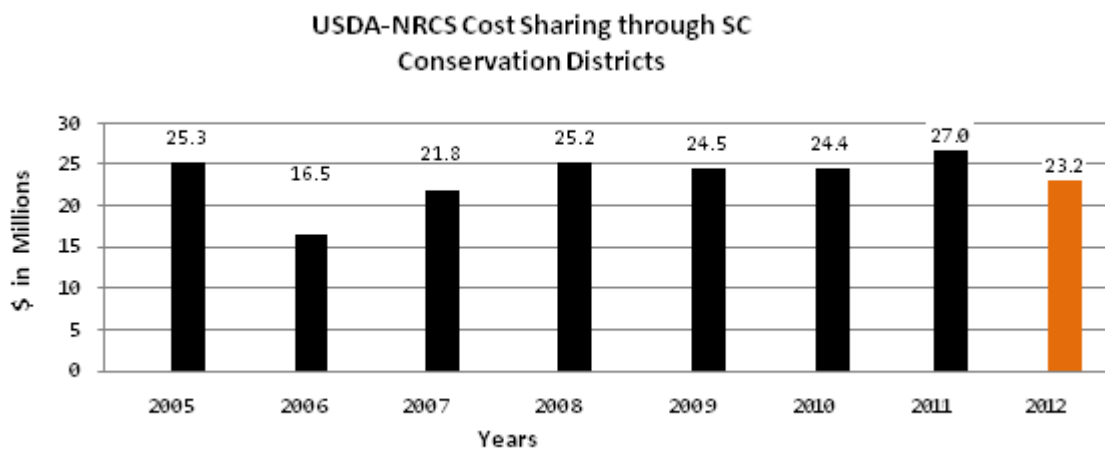
Regarding the River Conservation Program, Agency staff provided technical assistance for nine river management projects including State Scenic Rivers, watershed, and water trail programs. Approximately 900 hours were volunteered to river management in South Carolina through participation in Scenic River Advisory Councils. The 2011 Beach Sweep/River Sweep had 3,050 volunteers at 113 sites (See Figure 7.16), retrieving 38,780 pounds of trash from public waterways in most counties of the state.

(Figure 7.16)

**Program: Conservation Districts**  
**Division: Land, Water & Conservation**

During FY 2011-12, Program staff provided technical assistance to the public in conjunction with the 46 Conservation Districts and the U.S. Department of Agriculture-Natural Resource Conservation Service (NRCS). Technical duties of staff included planning and application of soil and water conservation practices, promoting wildlife habitat, monitoring soil erosion, assessing sediment and storm water problems, and conducting technical clinics and workshops. Under an agreement with NRCS, three temporary grant employees were hired by the Agency to provide technical assistance on Farm Bill programs and related conservation initiatives.

Through Federal Farm Bill conservation programs, \$23.2 million in federal cost share assistance was provided for installation of Best Management Practices. (See Figure 7.17)



(Figure 7.17)

An additional 147,000 acres were placed in a conservation plan, bringing the grand total to 8.9 million total acres in the state covered by a conservation plan.

In cooperation with the state and federal partner agencies, the DNR's staff participated in several conferences that focused on natural resource issues. The 2012 Annual Conservation Partnership Conference focused on the topic of healthy farming and included presentations by conservation district commissioners, SC Farm Bureau and Agency staff. Program Staff also participated in the Mid-year Conference of the SC Association of Conservation Districts and the regional and national conferences of the National Association of Conservation Districts and State Conservation Agencies.

Throughout the year, Program staff was involved with many local and statewide conservation district education programs. Statewide outdoor education events were conducted during the year including the annual Conservation Districts Youth Workshop at Lander University and the SC Envirothon.

**Supplemental Accountability Section (Land, Water & Conservation):**

**(A) Heritage Trust Program Reporting (FY 2011-12)**

*In accordance with Section 51-17-115, the Department of Natural Resources shall make a report to the presiding officers of the General Assembly detailing all funds expended by the Heritage Trust Program, including the amount of funds expended and the uses to which the expenditures were applied. This report is due by the 15<sup>th</sup> of January.*

*In accordance with Section 51-17-150, the Department of Natural Resources, as trustee for the Heritage Land Trust Fund, shall report annually to the Committee on Ways and Means of the House of Representatives and the Senate Finance Committee detailing acquisitions in the previous year by the Heritage Land Trust Fund and planned acquisitions for the next five years.*

*In accordance with Section 51-17-350, the Department of Natural Resources, not later than December 1, shall submit a written report to the State Budget and Control Board which addresses whether revenues - based on revenues of the Heritage Land Trust portion of the state deed recording fee received by the Heritage Land Trust Fund as of July 1 that year - are projected to be sufficient to discharge all covenants, agreements, and obligations of the Agency and the trustees with respect to all outstanding bonds in the calendar year immediately following.*

*To comply with the above statutory reporting requirements, the Agency reports the following pertaining to the Heritage Trust Program during FY 2011-12...*

*During FY 2011-12, the beginning cash balance was \$4,633,040. Revenues and interest receipted throughout the year totaled \$3,355,287. Expenditures included \$1,843,875 for Bond Debt Service and \$1,047,256 for Habitat Protection and Preserve Management operations. Therefore, the ending cash balance as of June 30, 2012 was \$5,097,196. Based on revenues received by the Heritage Land Trust Fund as of July 1, 2012, the revenues are projected to be sufficient to discharge all covenants, agreements, and obligations of the Agency and the trustees with respect to all outstanding bonds in FY 2012-13.*

*There were no acquisitions during FY 2011-12. Therefore, the total acreage dedicated under the Heritage Trust Program remains at 87,137 acres across 74 preserves.*

*In addition, due to the current economic recession and reduced revenues, there are no planned acquisitions for the next five years. The DNR will, however, closely monitor available properties for future acquisitions as the revenue situation improves.*

(B) Scenic Rivers Trust Fund Reporting (FY 2011-12)

***In accordance with Section 49-29-110, the Department of Natural Resources shall report by letter to the presiding officers of the General Assembly and chairmen of the House and Senate Agriculture and Natural Resources Committees each year all funds expended from the Scenic River Trust Fund for the previous year, including the amount of funds expended and the uses to which the expenditures were applied.***

*During FY 2011-12, the beginning cash balance was \$21,364.33. Revenues and interest received throughout the year totaled \$773.11. Expenditures included \$3,100.30 for Scenic Rivers operations. Therefore, the ending cash balance as of June 30, 2012 was \$19,037.14.*



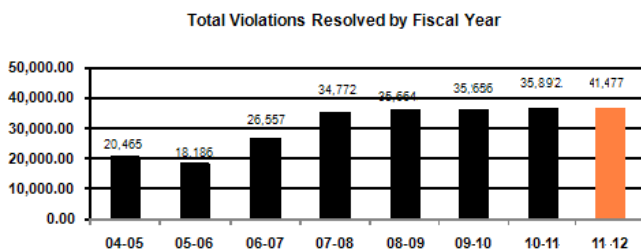
The core mission of the DNR’s Law Enforcement Division is: (1) to conserve and protect the state’s natural resources for social, economic, recreational, and commercial benefit while providing maximum human utilization; (2) to preserve the peace and protect human lives and property; (3) to develop public support through outreach, education, and safety programs; and (4) to enforce the state’s criminal laws through the detection, apprehension, and prosecution of persons who violate those laws. In addition to the primary natural resources and boating enforcement missions, the Division routinely assists other public safety and law enforcement agencies with homeland security, civil disturbance prevention, response to natural and man-made disasters, search and rescue missions, manhunts, the enforcement of public safety laws, and crime prevention.

**Program: Law Enforcement Operations**  
**Division: Law Enforcement**

One objective of the Law Enforcement Division’s strategic planning is to continually develop and implement a system of objective accountability measures to promote officer efficiency, increased job performance, and statewide law enforcement officer parity. In order to assess mission performance and the effectiveness of efforts to protect the state’s natural resources and those who utilize them, the Division collects, assesses, and reports officer activity and criminal violation data. Officer activity data is derived from 16 individual mission related work measures. Criminal violations data is collected from summons tickets and warning tickets. This data is received and processed monthly and reported through the chain of command within the Division via email reports to supervisors, providing them with information relative to the performance of officers in the field. Senior staff within the Division can assess manpower and resource allocation and conduct appropriate planning based on this data. The Division calculates and analyzes specific work measures across regions and units for comparison of productivity over time. These measures are used to evaluate efficiency and effectiveness of law enforcement officer activities for individual officers, field units, field regions, and the Division. During FY 2010-11, the Division embarked on a technology implementation plan that continued into FY 2011-12. Toward this end, the Division is converting the law enforcement records system to an Oracle-based platform; enhancing law enforcement education programs already on the Oracle platform; implementing a new computer aided dispatch program for the delivery of calls for service; and, acquiring 18 mobile data terminals for use in port security operations. When making these forward-looking decisions, the Division stays focused on the Agency’s strategic plan as a road map.

In FY 2011-12, Agency officers identified and resolved a total of 41,477 violations of the law through the issuance of summons and warning tickets. This represents an increase of 15.5% from the previous year’s total of 35,892. (See Figure 7.18) During this time, the Division hired 12 additional officers increasing the total number of officers in the Division from 202 during FY 2010-11 to 214 in FY 2011-12. In addition to the new officers, the Division implemented a new warning ticket that allowed officers to

efficiently document more minor violations that may have only been addressed with verbal warnings in the past. This is apparent in Figure 7.19 where the number of summons tickets from the previous year is virtually unchanged - increasing by only 1.4% - while the number of warning tickets increased by 21%. The use of the new warning tickets has provided the Division with a more efficient way of documenting

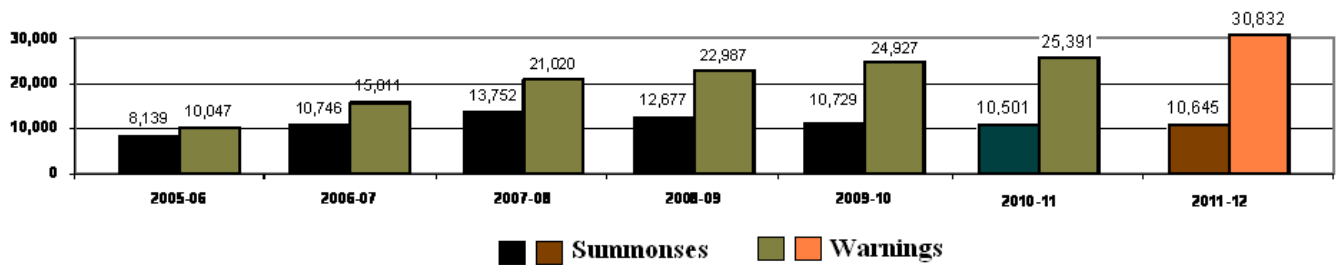


(Figure 7.18)

violations that have previously gone unrecorded. Senior leadership within the Division continued to utilize a management accountability strategy whereby supervisory Captains, Lieutenants, and First Sergeants actively reviewed monthly data related to officer work measures. This strategy involved reviewing work measures both up and down the chain of command to create accountability among officers, unit supervisors, and region supervisors, while focusing efforts on important missions.

Summons tickets were used to resolve 10,645 violations, accounting for 26% of the total. Warning tickets were issued for the remaining 30,832 violations, or 74% of the total. (See Figure 7.19) This data represents a consistent approach by the Agency’s officers in the resolution of violations encountered in the field. Officers are more likely to educate the public regarding a violation through the use of warnings, than they are to bring formal charges. The Division maintained a 3 to 1 ratio of warnings to summons in FY 2011-12.

**Comparison of Summonses to Warnings by Fiscal Year**



(Figure 7.19)

In FY 2011-12, Agency officers expended 5,785 man-hours assisting other law enforcement agencies, and resolved 5,388 public safety violations including trespass, litter, drugs, alcohol, and disorderly conduct. Of these violations, 2,132 were resolved using summonses, while 3,256 were resolved by warning tickets. These numbers were virtually unchanged from FY 2010-11. Public safety cases accounted for 14% and 13% of the total violations resolved in FY 2010-11 and FY 2011-12, respectively. This has been consistent over the years showing the diversity of enforcement issues that Agency officers encounter on the job. The DNR’s officers spent 3,561 man-hours conducting search and rescue missions in FY 2011-12, an increase of 36% over the previous year’s total of 2,250 man-hours. These numbers continue to reflect the broad spectrum of law enforcement duties and the diversity of issues that are encountered by the DNR’s officers.

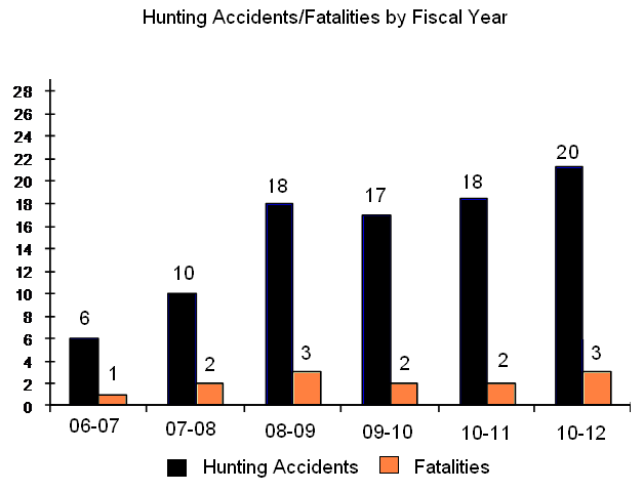
The Division completed a hiring process and put 12 new officers on the job during FY 2011-12, with funding from FY 2010-11. These officers brought the Division to 214 officers. At its peak, the Division had 301 officers. These additional officers were placed in counties where there have been critical manpower deficiencies. In some cases, there were no resident officers in the county. The FY 2011-12 Appropriations Act did not include new officer positions; however, the FY 2012-13 Appropriations Act does include funding for 23 more officer positions. The Division will hire, train, and place these officers in the field during FY 2012-13.

The primary mission of the DNR law enforcement officer is to protect the natural resources and those who utilize them. This mission takes on many forms, including crime detection, arrest and prosecution of offenders, formal education efforts, and gaining compliance through informal educational efforts including warnings and instructions. Immeasurable crime deterrence is achieved through officer presence

in the field. Ultimately, the role of the officer is to gain compliance with the laws; provide information to sportsmen, boaters, and the public; educate resources users; and, ensure that the resources are conserved for the enjoyment and use of the public.

**Program: Hunter Safety**  
**Division: Law Enforcement**

Another objective of the Law Enforcement Division is to promote safe hunting practices, ethical use of the natural resources, and voluntary compliance with the law through an effective hunter education program. The Division collects and monitors data on several key functions that relate to job performance and constitute satisfaction. The areas that are monitored reflect areas of concern to the DNR and to the hunting public. In FY 2011-12, there were 27 hunting accidents that were reported to the Agency. (See Figure 7.20) Fifteen (15) of these were firearms related with one (1) fatality, and five (5) were tree-stand related with two (2) fatalities. Two (2) other deaths involving hunters were investigated and found to be non-hunting related.

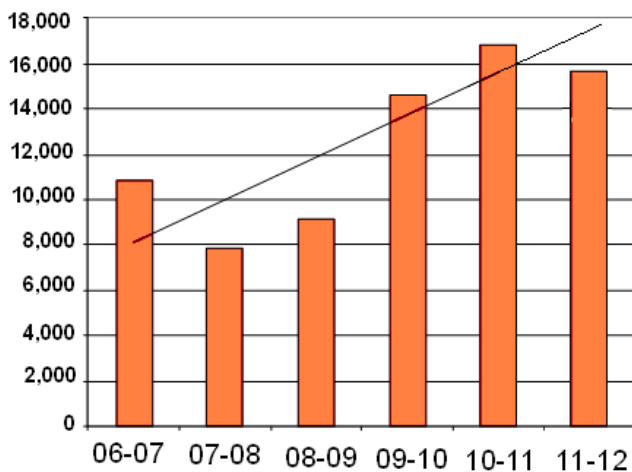


(Figure 7.20)

The Hunter Education Course is mandatory for all hunters born after June 30, 1979, prior to purchasing a license to hunt. However, there are many hunters who take the course in an effort to improve their knowledge of hunting and other outdoor skills even though they are not required to attend. Many South Carolina hunters who travel out-of-state to hunt will take the course in SC in order to comply with the

laws of the state in which they will be hunting. In FY 2011-12, 15,674 students participated in the Agency’s Hunter Education Course. This includes students who took the course in a classroom (11,920), on the internet (2,601), by CD-ROM at home (1,036), and through a home study workbook (117). The graph shows that the level of students participating in hunter education classes has increased in the previous three years. (See Figure 7.21) Part of this increase may be the result of the Division’s efforts to simplify the methods by which students may take the course. Students may choose to take a FREE 8-hour classroom course, or pick from three (3) home study options: Internet, CD\_ROM, or Workbook. Regardless of which of the four options is chosen, a similar training approach ensures that students receive the same pertinent information.

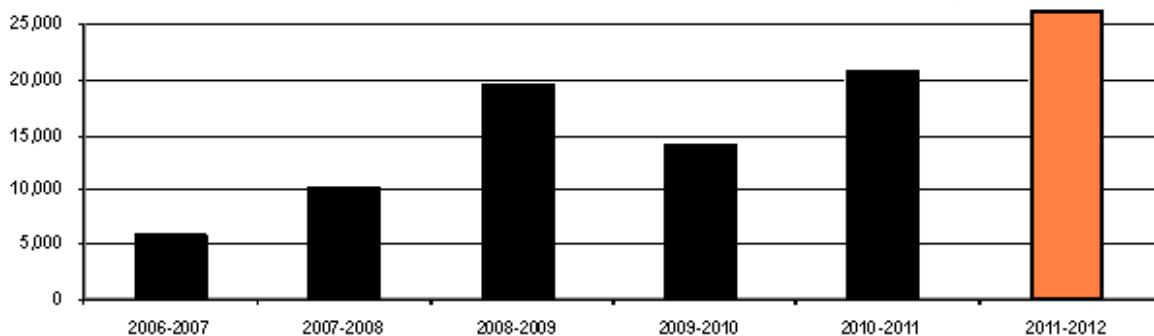
**Number of Hunter Safety Student Participants by Fiscal Year**



(Figure 7.21)

Archery in the Schools is an outreach effort to bring youth into hunting and shooting sports by introducing them to the sport of Junior Olympic style archery. In FY 2011-12, over 26,000 students in 256 schools were enrolled in this program. This year's participation represents a 27% increase from the previous year. (See Figure 7.22) The Division hosts a state tournament every year for students who score high enough at the annual virtual tournament held in the schools. In 2012, 823 students participated in what has now become a 2-day event. There were 324 students - representing 18 elementary schools - who participated in the first day of the tournament. Participants in the second day of the state tournament included 499 students from 7 middle and 7 high school teams. A second measure of success in the development of this Program is the addition of schools into the Program. School participation increased by 20% for a sixth year in FY 2011-12, with the number of schools increasing from 213 to 256.

**Archery in the Schools Enrollment  
(By: Fiscal Year)**

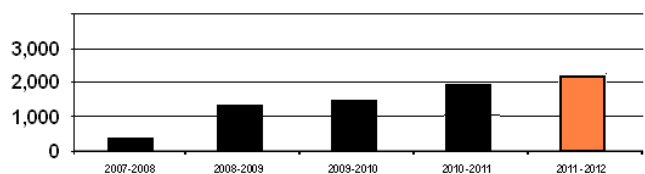


(Figure 7.22)

The division continued the *Take One Make One* program. This Program specifically targets youth and young adults who have not experienced previous hunting activities. These youth are paired with volunteer hunt club members and private land owners who sponsor and participate in an active hunting, fishing, and shooting sports mentoring program. In FY 2011-12, the Program coordinated 39 youth hunts, with 299 youth and adults participating. In addition to youth hunts, the Program utilizes 9 mobile education trailers equipped with Laser Shot Shooting Simulators and Fishing Simulators as well as a 45 foot Heritage trailer with an indoor pellet gun range. In FY 2011-12, these trailers participated in 137 events, with over 26,195 people participating.

The Scholastic Clay Target Program in SC is an outreach program based in public schools, private schools, and various clubs (including 4H) to promote clay target shooting to students. This alternative sports program promotes all three regimens of clay target shooting: Sporting Clays, Trap, and Skeet. The DNR has assisted this growing program by off-setting costs for shot shells and targets, as well as providing training for coaches and students in firearms safety and hunter education. Since 2006, the Program has continued to grow in success and popularity. During the FY 2011-12, 2,073 students participated in 9 shooting events across the state (See Figure 7.23). Fifty-seven (57) students participated in the state skeet and trap competition held at Mid-Carolina Gun Club and 352 youth shooters participated in the 2012 state sporting clays event

**Scholastic Clays Participation  
(By: Fiscal Year)**



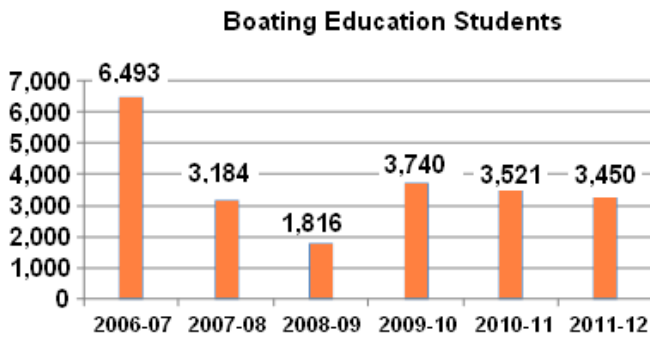
(Figure 7.23)

held at the Backwoods Sporting Clays facility. The state sporting clays event was the largest sporting clays event to date ever in South Carolina.

**Program: Boating Safety**  
**Division: Law Enforcement**

Another outreach objective of the Law Enforcement Division is to continue to provide a safe boating environment through proactive law enforcement, effective education programs, media outreach, and working relationships with other agencies. The Division collects and monitors data on several key functions that relate to job performance and constituent satisfaction. The areas that are monitored reflect areas of concern to the DNR and to the boating public.

The Agency’s Boater Education Course is mandatory for boaters under the age of 16 who operate a watercraft powered by a 15 horsepower or larger motor without adult supervision. There are many other



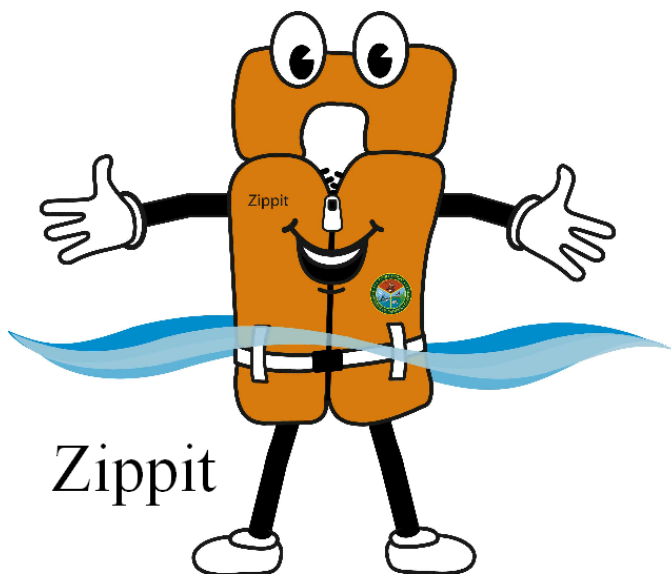
(Figure 7.24)

boaters who take the course in an effort to improve their knowledge of boating related issues even though they are not required to attend. The Division promotes boating safety courses and allows them to be taken on-line, as home study, or in a classroom. For FY 2011-12 the total number of students that participated in the Agency’s boating safety course was 3,450. This includes students who took the course in a classroom (1,798), on the internet (1,531), and by video (121) (See Figure 7.24).

A good measure of constituent trends is reflected in the continued growth in the number of boats registered in the state. Growth of recreational boating in South Carolina has required the Agency to work closely with the boating industry and boating groups and associations to address specific issues and concerns. This approach has allowed the DNR to be successful in obtaining legislation and additional resources to deal with specific boating related issues and the general growth of boating activity. The partnering has also led to the development of public service announcements to address boating issues and educational tools.

The Division continued work with the United States Coast Guard Auxiliary (USCG AUX) through the “Boating Safety Partnership”, a joint initiative designed to provide efficient delivery of boating safety classes and boating safety information to students and boaters in South Carolina. This initiative allows the USCG AUX to access the DNR database and information resources, thereby allowing both agencies to register, to certify boating safety students, and to provide boating safety information to boaters specific to the unique boating environment in South Carolina. This initiative is clearly a win-win for the citizens of SC. The initiative’s costs are nominal-to-non-existent while the delivery of service to the boating constituency is greatly improved.

To increase public awareness of the importance of wearing a Personal Flotation Device (PFD) while boating, “Zippit”, the Agency’s Boating Safety mascot, was created. (See Figure 7.25) Zippit represents a wearable PFD that is required by law as boating safety equipment. Zippit is aimed at promoting safety among all boaters but is particularly appealing to children and youth. As part of the initiative, officers give “Zippit” t-shirts to youth who are observed on vessels wearing PFD’s. Other promotional items are distributed as well during safety checks and boat courtesy inspections.



(Figure 7.25)

The Division continued a cooperative educational media campaign in conjunction with the South Carolina Department of Public Safety (SCDPS) aimed at enforcement and education surrounding the crimes of boating under the influence and driving under the influence. In FY 2011-12, the Division again partnered with the SCDPS in the “100 Deadly Days of Summer” which began on Memorial Day and ran through the summer months. TV ads, radio, and print media - combined with an increased enforcement level by both agencies - are the lynch pins of the initiative. (See Figure 7.26)



(Figure 7.26)

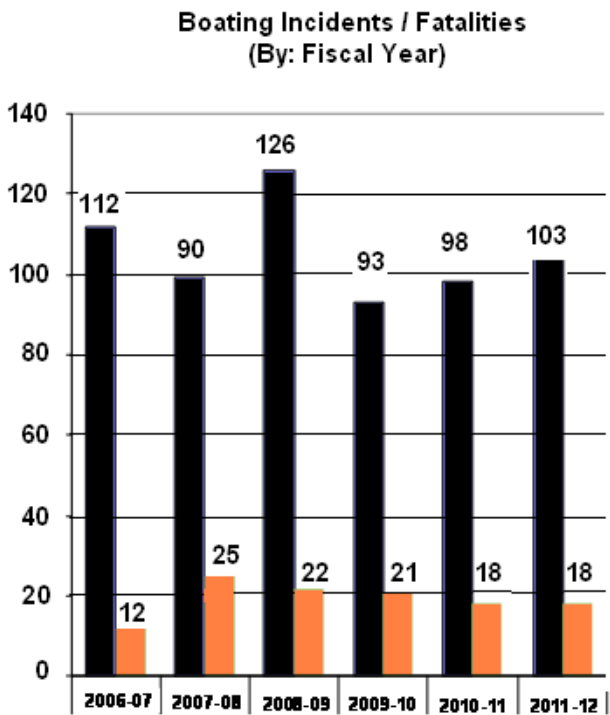
The Division continued a joint alcohol enforcement initiative this year between the SCDPS, Highway Patrol, and the DNR’s Law Enforcement Division utilizing mobile breath alcohol-testing vans (BAT-Mobiles). The use of this tool has had a tremendous and noticeable impact on the rate and efficiency of BUI enforcement by this team. The agencies produced a joint public service announcement featuring efforts by both law enforcement entities to reduce DUI and BUI violations on the highways and waterways, respectively, of the state. During FY 2011-12, Agency officers arrested 112 individuals for

boating under the influence. This number remained the same as the previous year when 111 individuals were also arrested and prosecuted for boating under the influence.

For FY 2011-12, the Division responded to 103 boating incidents and 18 boating incident fatalities. (See Figure 7.27) There was a nominal increase in non-fatal incidents from 98 to 103, while fatalities remained at 18. The number of registered watercraft, boating incidents, and incident fatalities has been stable over a four year period. However, the Division strives to continually increase the awareness of

boating safety through education courses, courtesy boat safety inspections, public service announcements, and officer contacts. As the number of users and incidents remain constant, it is apparent that the Division’s message is being delivered effectively.

In FY 2011-12, officers again conducted courtesy boat inspections during major holidays and special water events. This initiative has become one of the more effective outreach efforts put in place by the Division. These inspections are pre-launch checks of safety equipment and registrations intended to ensure the vessel operator is legal and the watercraft is safe before going on the water. They are conducted by officers, and deputy officers, and provide another opportunity to deliver the safety message to the public. Courtesy inspections are another example of the Division’s commitment to a proactive approach to public safety and the enhancement of recreational boating activities in the state.



(Figure 7.27)

## Outreach & Support Services Division

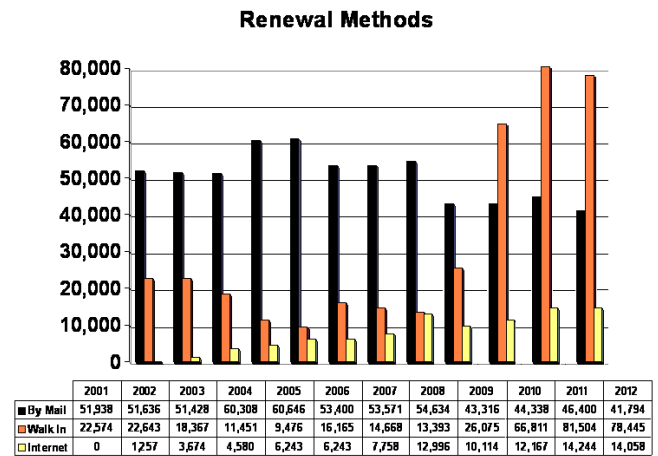
The Division of Outreach and Support Services (OSS) supports all divisions and programs of the DNR. OSS provides Agency-wide support in the areas of procurement, accounting, engineering, human resources, legal, audit, legislative, mail services, graphics, duplicating, editorial advisement, photography, video, and news/media services. The Division also has the responsibility of administering all Agency funds, including federal, state, and other revenue sources. The Division is accountable for the Agency's fixed asset system, which includes property inventory management and the disposal of surplus equipment. The Boating Access Section provides assistance to the state, counties, and municipalities in the design, construction, and renovation of public boating access facilities throughout the state.

### Program: Watercraft Registration and Titling

#### Division: Outreach & Support Services

All watercraft and outboard motor titling and registration for the state is handled through the Watercraft Titling and Registration Program. For the past several years, South Carolina has ranked 4<sup>th</sup> in the nation in per capita boat ownership, a ranking which remains steady. Currently, 370,270 boats are actively registered in the state. This area remains a particular focus point for the DNR and customer service is of vital importance.

In FY 2011-12, renewals totaled 134,297. In the ever-constant quest for more convenient and efficient methods of accomplishing the task of renewing registration of watercraft, three methods of renewal are offered. Consumers can renew by mail, by physically coming into one of the regional offices, or electronically using the internet. As anticipated, electronic methods are trending upward in terms of popularity. An enhanced online watercraft system offers customers the option of requesting a duplicate registration card, registration decal, or duplicate outboard motor decals from the convenience of their home. Customers are also able to view registration records online at any time of the day or night via the internet. (See Figure 7.28)



(Figure 7.28)

The Agency continues to promote a web based feature that assists individuals preparing to buy previously owned watercraft or outboard motors that have been titled in the state. Within this system, "SC Boat Facts" allows a buyer to check the current financial lien status, the personal property tax status, and registration status of a watercraft or outboard motor. If personal property taxes are delinquent, the prospective buyer can see to which county taxes are owed.



**Program: Licenses Sales**  
**Division: Outreach & Support Services**

With a volume of 947,127 (\$14,716,693.50) licenses purchased last year - representing the Agency's front line of constituent interaction in many cases - customer service is a primary factor. A goal for this past year was to increase licenses sales by further enhancing customer service and making the purchase of hunting and fishing licenses more convenient. The annual multi-purpose mailer distributed in May was enhanced this year. Direct mailers were sent to 37,300 customers (33,000 Residents / 4,300 Non-Residents) allowing them to purchase licenses, permits, and tags through the mail or the internet. Approximately 119,153 postcards were sent to customers that have exclusively used the internet for license purchases. These multiple approaches were utilized to encourage customers to use the Agency's website in order to purchase hunting or fishing licenses, antlerless deer tags, shrimp baiting licenses, and non-game fish tags. Postcards were customized for hunters, anglers, or a combination determined by what the customer had purchased the previous license year. License orders were processed and returned to the customers, saving the time and expense of a trip to their local license vendor, and allowing the Agency to maintain a more accurate customer database. For the past 5 years, the response rate has held at around 11%. Since FY 1999-2000, license sales have also been available by phone (@ 1-866-714-3611).

The Agency has completed the conversion of the remaining paper-based (handwritten) license agents to the electronic point of sale (POS) license system. This system allows vendors to print licenses for the customer at the point of sale and makes the data instantly available to the Agency. Customers that lose their license can now purchase a duplicate license from any license vendor statewide. All license agents now electronically remit fees twice a month. Additional opportunities to streamline processes and enhance license offerings to the public are also being considered. Such opportunities include the internet via the Agency's website - a method that allows customers to purchase from the comfort of their home.

**Program: Boater Access**  
**Division: Outreach & Support Services**

The DNR's Engineering Section is the primary component of the Boating Access Program. This Program provides technical assistance to state, county, and municipal government entities by providing professional engineering services and oversight in the design, construction, and renovation of boating access facilities within the state. In addition to boating access facilities, the Program also provides design and construction management assistance for other water recreational related facilities, such as fishing piers and docks, as well as general engineering assistance to other groups within the Agency as it relates to facilities management and construction.

During FY 2011-12, the Engineering Section completed seven projects related to boating access. These projects included repairs to existing facilities, complete renovations to existing facilities, as well as new construction of ramps and docks. The total cost of all of these projects was \$535,372.

In addition to this work, the Engineering Section has worked with various Divisions within the Agency on facilities repairs and construction including the selection of a Design/Build contractor and award of a multi-million dollar repair contract for the Marine Resources Research Institute lab and classroom building at the Fort Johnson complex; repairs to the Administration Building and Physical Plant Building at the Fort Johnson complex; the selection of a Design/Build contractor and award of a several million dollar construction contract for the Region 2 Hub Office in Florence; repairs and renovations to the labs and offices at Waddell Center; repairs at Blake House at Santee Coastal Reserve; and, Direlton House at Samworth WMA.

**Program: Education Program**  
**Division: Outreach & Support Services**

The Education Program operates in accordance with the guidelines set by the Agency’s Vision for the Future and Mission statement to enhance public perception of the DNR, increase participation in hunting and fishing, and to increase the awareness and adoption of behaviors that conserve natural resources.

During FY 2011-12, the OSS Education Program reached out to 33,661 people through Aquatic Education courses; the Jocassee Gorges course; Camp Wildwood; and, the Palmetto Sportsman’s Classic. (See Figure 7.29)

Education Program Summaries

*Camp Wildwood is a Natural Resources Leadership Camp for rising 9<sup>th</sup> through 12<sup>th</sup> graders. Campers and counselors discover an appreciation for - and knowledge of - the protection and wise use of the state’s resources through a series of classes such as fisheries biology, wildlife management, forestry, and hunter safety. The outdoor setting, along with other activities at camp such as sports, encourages self-reliance, self-discipline, and independence in the campers.*

(Figure 7.29)

<b>Camp Wildwood</b>	<b>120</b>
- First Year Program (85)	
- Second Year Program (19)	
- Third Year Program (16)	
<b>Jocassee Gorges</b>	<b>7,195</b>
<b>Aquatic Education</b>	<b>10, 278</b>
- SC Reel Kids (1,714)	
- Reel Art (877)	
- Fishing Tackle Loaner Program (2,390)	
- Certified DNR Fishing Instructors (47)	
- Family Fishing Clinics (400)	
- Trout in the Classroom (4,615)	
- Youth Bass Fishing Clubs (235)	
<b>Palmetto Sportsman's Classic</b>	<b>16,068</b>
- Tickets (13,476)	
- Comp Tickets (2,592)	
<b>Total Participants for OSS</b>	<b>33,661</b>

*Jocassee Gorges education and visitation course uses interpreted hikes, naturalist training, and other venues to promote the protection, management, and economics of South Carolina’s mountain resources. The Jocassee Gorges Visitor Center at Keowee-Toxaway State Natural Area in Northern Pickens County opened with a dedication ceremony in 2009 and since then has received hundreds of visitors. Keowee-Toxaway is adjacent to the Jocassee Gorges property and is one of the “gateways” to the Jocassee Gorges area. Clemson University’s Upstate Master Naturalist program and the Osher Lifelong Learning Institute (OLLI) at Clemson University feature education programs on natural history and stewardship of mountain habitats and wildlife species using the natural resources of Jocassee Gorges. .*

*Aquatic Education encompasses several fishing recruitment courses (such as SC Reel Kids, Fishing Tackle Loaner Program, Fishing 101, and Youth Bass Fishing Clubs) and some basics on a healthy aquatic ecosystem (such as Reel Art and Trout in the Classroom). These educational courses reach a variety of age groups throughout South Carolina using USFWS Sport Fish Restoration Funds.*

*The Palmetto Sportsmen’s Classic is an outdoor expo that the DNR produces in partnership with the Harry Hampton Memorial Wildlife Fund. This event provides an opportunity to reach out to the general public, to recruit for the Agency’s education offerings, to share basic knowledge of the Agency, to provide an opportunity for the public to ask questions directly to the DNR’s employees, and to purchase a variety of hunting and fishing gear and paraphernalia.*

**Program: Technology Development Program**  
**Division: Outreach & Support Services**

The Technology Development Program was established by the Agency in 2002 to provide a holistic and integrated approach to systems, databases, and information management. The mission of the Program is to maintain operational efficiencies in computer resources while planning and implementing short and long-term technology needs. This Program provides operational support, data processing standards, information management and analysis, and application design services to the Agency through the successful implementation of five primary objectives:

(1) Development and maintenance of a technological infrastructure

Due to the lack of adequate funding during FY 2011-12, the primary focus of the Program was to maintain the existing computing environment, to make improvements as much as possible through routine hardware and software maintenance upgrades, and to complete changes in operational procedures. During the past year, the following results were achieved for this objective:

- Answered more than 5,600 requests for help desk, web (Internet and Intranet), mainframe programming, and spatial analysis support.
- Converted the Agency antivirus software to more comprehensive Endpoint Protection Suite software to provide enhanced file and network security and virus detection and removal.
- Downloaded the latest version of client backup systems to provide data and file recovery capabilities for Agency servers and client workstations.
- Initiated conversion of client workstations' operating system from Windows XP to Windows 7.
- Provided network installation and configuration support for remodeling projects at three Agency facilities including Santee Coastal Preserve.
- Installed wireless access points in the DNR regional offices.
- Configured i-Pads and various staff Smartphone devices for Law Enforcement and other staff for use with Agency email and other access services.
- Built server and installed and configured database to support Law Enforcement Computer-Aided Dispatch (CAD) and Records Management System.
- Worked with Charleston County on a joint law enforcement project for an integrated harbor security and dispatch system.

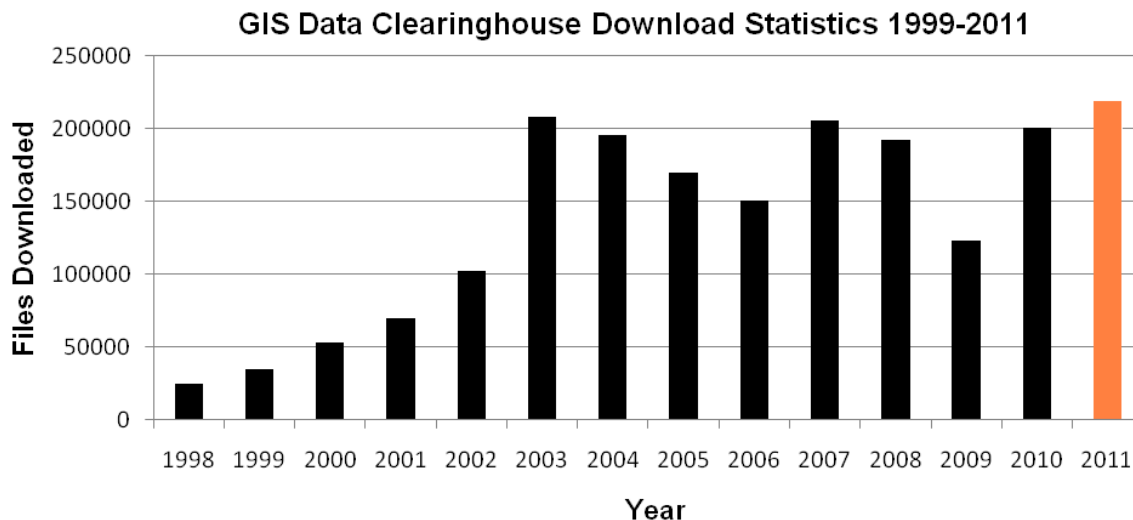
(2) Development, maintenance, and integration of statewide digital spatial and tabular data

During the past fiscal year, the following results were achieved pertaining to the Program's second objective, to develop, maintain, and integrate statewide digital spatial and tabular data:

- Continued to work with South Carolina Interactive to develop a comprehensive Oracle database schema to support the licensing, boat titling and registration, and permitting system, currently under development to replace the existing mainframe application. (Also links to the Program's objective #3). The Technology Program continued to support and enhance, existing on-line boat

registration renewals, alligator draw hunt, and various licensing and permitting applications. The new web-based system is scheduled for implementation on December 17<sup>th</sup>, 2012.

- Developed a quality assurance/quality control program to identify incomplete or inaccurate Agency licensing and boat titling customer data records and provide tools to administrative staff to resolve customer record conflicts.
- Initiated development of licensing and titling administrative tools to process daily sales transactions, provide for customer information management, and develop daily, monthly and annual reports of license sales and customer demographics.
- Continued to provide, at no cost to other state and federal agencies, local governments, and the public, non-sensitive spatial data maintained at the DNR through the SC DNR GIS Data Clearinghouse. This system provides substantial database development, processing, and file transfer cost savings. The clearinghouse, which has operated since 1998, experienced substantial annual increases in GIS data downloaded via the web until 2003 with a peak of 207,000 downloads. Since 2003, downloads have varied annually with increases coinciding with new data acquisition and posting (See Figure 7.30). The acquisition of Light Detection and Ranging (LiDAR) for South Carolina has added tremendously to the amount of data being downloaded from the Clearinghouse. This year 219,918 files were downloaded.



(Figure 7.30)

- Continued the integration of Agency natural resources, land management, and administrative data into the Oracle database. Much of this data resides in several hundred disparate PC-based and mainframe databases but is being converted to a comprehensive database management system.
- Completed integrated regional marine fisheries database management system for South Carolina, North Carolina, Georgia, and Florida to support SEAMAP program.
- Added numerous enhancements and updates to the DNR spatial data catalog including new property boundaries and land management facilities, updated threatened and endangered species, LiDAR elevation and digital elevation models/terrains, wetlands, soils, roads, and other natural resource features.

- Continued the acquisition and processing of high-resolution elevation data using LiDAR technologies for South Carolina. Since 2007, LiDAR data for 43 of the 46 counties of the state have been completed or are in development. Two of the three remaining counties are scheduled for acquisition in January-February 2013. This data provides elevation data sets with 12 to 15 centimeter or better vertical accuracy whereas previous data developed in the 1970s was only accurate to 5 to 7 meters.

(3) Development, maintenance, and integration of complex spatial and statistical analyses, applications programming, cartographic, and multimedia

During the past year, the following results were achieved pertaining to the Program's third objective, to provide complex spatial and statistical analyses, applications programming, and cartographic and multimedia development:

- Initiated conversion of remaining mainframe financial and law enforcement applications to Oracle database programs using the .NET programming framework. These applications include returned checks, telephone billing, gasoline card billing, and other programs unique to the DNR that are not provided in SCEIS and the Law Enforcement violations and suspension system.
- Developed lottery process to select customers from pool of applicants for alligator, bear, dove, and other hunt draws that includes previous customer preference points and geographic area priorities into the lottery process. This system will be integrated with the new licensing system being developed by South Carolina Interactive for the Agency.
- Continued to expand and enhance the electronic document management system applications including the DNR land inventory and property management, law enforcement hunter-boater education, violations and suspensions and case management, licensing and titling, the Agency's photographic repository, and the hydrologic and geologic well records.
- Developed cartographic products and digital maps for a variety of brochures, pamphlets, publications, and on-line mapping services including the DNR Law Enforcement, SC Wildlife Magazine, and the 2012-13 Wildlife Management Area maps for both hardcopy printing and on-line access.

(4) Development and implementation of short and long- range system design while establishing standards and procedures for information management

During the past year, the following results was achieved pertaining to the Program's fourth objective, to develop and implement short and long- range system design while establishing standards and procedures for information management:

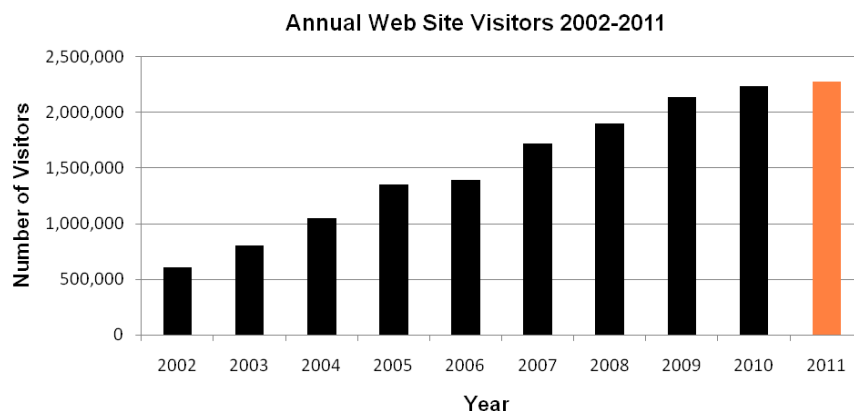
- Program Director served on the Information Technology Solutions Committee (ITSC) subcommittee to establish various information technology standards and operating protocols for State Government agencies.
- Continued to work with USGS Liaison to South Carolina to coordinate the SC LiDAR Consortium to create data acquisition and processing standards for developing high resolution elevation data for the state. Also continued to work with State Engineer's Office on the implementation of the 5 year contract for LiDAR acquisition, processing, and quality assurance/quality control.

- Program Director continued to serve as Technical Representative to the Geographic Information Coordination Council and to provide direct supervision of the State GIS Coordinator.
- GIS Coordinator continued to work with state agencies and county and local governments to develop data sharing agreements, to create and maintain commonly used spatial data layers, and to establish standards for interagency data development and exchange.
- Program Director served on technical proposal evaluation committees for the Information Technology Management Office (ITMO) to select vendors for several state IT contracts and on the Software Domain Standards Committee for DSIT to establish hardware and software standards to facilitate IT planning and procurement in South Carolina.
- Continued to work with DSIT on long-term disaster recovery and business continuity options for the DNR and other state agencies in the event of natural or man-made disasters resulting in catastrophic interruption of IT services.

5) Dissemination of information and data to the general public through the development and maintenance of the DNR’s website

During the past year, the following results were achieved pertaining to the Program’s fifth objective, to disseminate information and data to the general public through the development and maintenance of the DNR’s website:

- Continued to update and refine the Agency’s web site to include current information, improved navigation, increased functionality including improved access for disabled citizens, and increased standardization of web site “look and feel.”
- Initiated redesign of the layout and navigation of the DNR on-line rules and regulations by game species rather than geographic area. The rules and regulations for deer have been completed and other species are nearing completion.
- Initiated the development of a mobile web site to support iPad and Smartphones for citizens requiring mobile access. For now, the web site will support information dissemination but the design is being built to include applications that require interactive communications with the Agency.
- Continued to use the internet and web-based technologies to keep citizens informed of natural resources issues and to provide information of a public concern or of a scientific and technical nature to its various constituencies. The number of unique users of the DNR web site has more than tripled since 2002 and continues to increase annually. (See Figure 7.31)



(Figure 7.31)

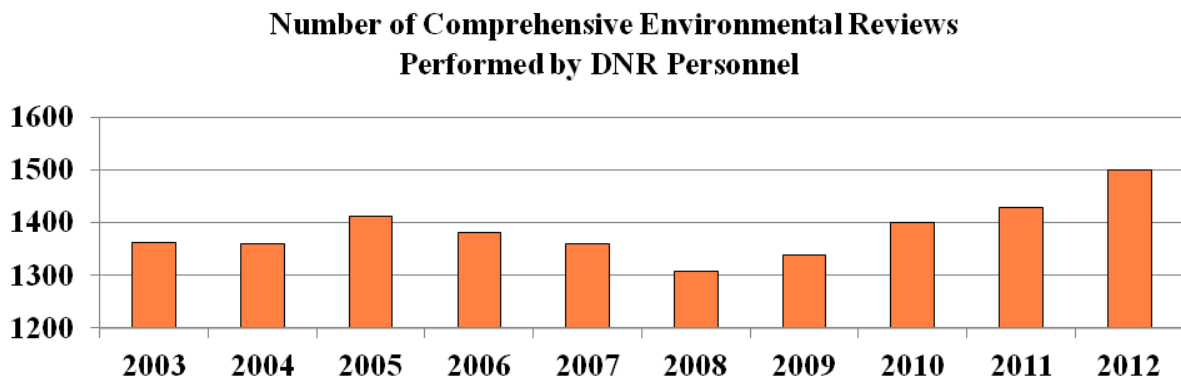
The Office of Environmental Programs coordinates the Agency-wide review of permit and license applications and other environmental actions affecting natural resources that come before the various state and federal regulatory agencies. Primary objectives of the Program are to:

1. Keep abreast of all environmental regulatory requirements and court decisions;
2. Coordinate the inter-divisional review of all environmental review requests;
3. Ensure that all Agency comments on environmental reviews are scientifically sound, timely, and in conformance with the DNR's policies and procedures; and
4. Ensure that all comments are unified and that the Agency speaks with one voice.

Customer satisfaction and mission accomplishment may be assessed by the timeliness of review completion and response, and by the type and comprehensiveness of reviews conducted. Comprehensive environmental reviews are defined as those that require a field site visit and/or a written evaluation. Table 7.1 lists the type and number of comprehensive reviews performed during FY 2011-12. The total number of comprehensive environmental reviews in FY 2011-12 was 1,499. Figure 7.32 shows the 10-year trend for comprehensive environmental reviews performed by Agency personnel. For the time period, FY 2003-04 through FY 2011-12, more than 99% of all requested environmental reviews were completed within the requested time period.

**Table 7.1 Office of Environmental Programs comprehensive reviews performed during the FY 2011-12.**

Type of Review	Number of Reviews <sup>1</sup>
Miscellaneous and Multidisciplinary	327
Inland Project Proposals	581
Coastal Project Proposals	520
Nuclear Projects	24
FERC Projects	47
<b>Total</b>	<b>1,499</b>



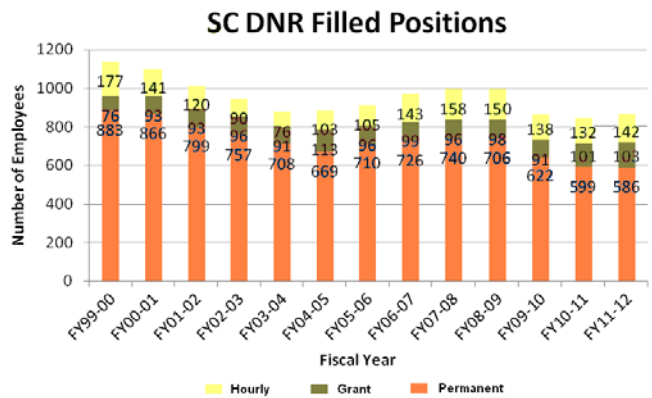
(Figure 7.32)

<sup>1</sup>The number of comprehensive reviews does not equal the number of individual permit or license applications as each permit or license application may have multiple comprehensive reviews that occur at various stages of the permitting or licensing processes.

The DNR’s Human Resources Office provides strategic planning, compensation, benefits, employment training, and employee relations support to the Agency. The philosophy of the Office is to provide a high level of support to all employees within the Agency and the public who are seeking assistance. The goal of the Office is to be as efficient as possible so that employees may perform their jobs with minimal distractions. The Office uses different data to assist the Agency with decision making, some of which is provided in the following graphs.

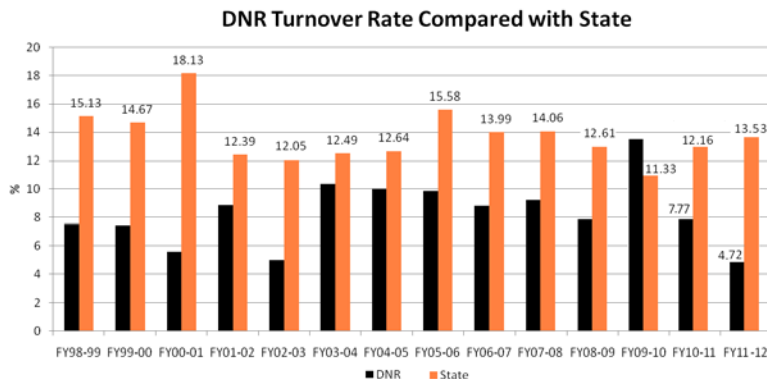
**Human Resources**

Trend data regarding the number of filled positions is displayed in Figure 7.33. Before the economic downturn of the early 2000’s, the Agency had 1,136 employees in filled permanent, hourly, and grant positions. As the state entered into a period of severe budget cuts, the Agency’s total workforce declined drastically creating an environment of increased work with little to no increases in pay. With these conditions, the DNR’s permanent filled positions continued a downward spiral through FY 2004-05. To mitigate these losses, the Director initiated a funding and managerial policy of ensuring that critical positions be filled first. This policy began to turn around the earlier permanent losses in FY 2005-06. Unfortunately, these gains were short lived as yet another national economic downturn over the past several years required the Agency to again trim its workforce through reductions-in-force (RIF’s), attrition, and separation incentives. The Agency continues to be about 25% smaller in staff size compared to the turn of the century. For FY 2011-12, the Agency’s filled positions were as follows: 586 permanent, 103 grant, and 142 hourly. See Figure 7.33



(Figure 7.33)

Historically, the DNR’s turnover rate (See Figure 7.34) has been lower than that of state government’s overall turnover rate. However, in FY 2009-10, the Agency’s turnover rate actually surpassed state government’s turnover rate. This change in turnover is attributed to previous budgets reductions and the Agency’s current inability to increase salaries to levels comparable with the private/other governmental sectors. FY 2010-11 and FY 2011-12 shows a more stable turnover rate. But, if the DNR cannot implement compensation strategies in the coming years and if the economy were to improve, turnover would be expected to increase.



(Figure 7.34)





**South Carolina Department  
of Natural Resources**

