

# South Carolina Department of Natural Resources



## 2016 Accomplishments

[www.dnr.sc.gov](http://www.dnr.sc.gov)

# South Carolina Department of Natural Resources



## 2016 Accomplishments

[www.dnr.sc.gov](http://www.dnr.sc.gov)

# South Carolina Department of Natural Resources 2016 Accomplishments

## Table of Contents

Executive Office ..... 1

Land, Water and Conservation Division ..... 9

Law Enforcement Division..... 13

Marine Resources Division..... 27

Office of Support Services ..... 31

Wildlife and Freshwater Fisheries Division..... 34



# EXECUTIVE OFFICE

## Office of Environmental Programs

- Staff of the Office of Environmental Programs participated in 64 comprehensive reviews of FERC Hydroelectric Project proposals on 23 licensed projects as related to applications, water quality certifications, study plans, study reports, natural resource management plans, monitoring plans and compliance reports. Significant FERC accomplishments included:
  - The relicensing of the Keowee-Toxaway Hydro Project which will provide a new habitat enhancement program, fish entrainment reduction, trout habitat monitoring, funding for headwater stream restoration, protection of priority species, land conservation on 2,865 acres, funding for additional land conservation, funding for Sassafras Mountain tower, additional recreational amenities at public access sites and a low-inflow protocol to conserve water during droughts.
  - The transfer of \$2.1 million to DNR from Duke Energy under the Catawba-Wateree Comprehensive Relicensing Agreement to support acquisition of the Liberty Hill WMA and other fish and wildlife enhancements in the Catawba-Wateree River Basin.
  - Establishment of the 2017-27 Work Plan agreement with Duke Energy under the Bad Creek MOU which will provide \$1.4 million to DNR for fisheries management at Lakes Keowee and Jocassee over the next 11 years.
- Staff participated in 62 interagency meetings to discuss permitting issues and represent DNR interests related to aquatic habitats, water quality and impacts to specific species. These meetings coordinate comprehensive reviews of significant state and federal permit and certification requests for alterations to wetlands and other aquatic habitats.
- Approximately 1,075 comprehensive environmental reviews were conducted, and science based comments provided to state and federal regulatory agencies related to community development projects using Federal Community Block Fund Grants, impacts Waters of the U.S. in accordance with public notices through the Clean Water Act, National Environmental Policy Act, S.C. State Mining Act, Coastal Zone Management Act and S.C. Navigable Waters Act as well as DNR Natural Resources Trustee activities on all SARA/CERCLA, RCRA, and OPA actions that have the potential to affect fish and wildlife resources. Our objective in all environmental reviews is to protect natural resources, including fisheries, wildlife and rare, threatened and endangered species that could be impacted by proposed projects.
- Staff reviewed 18 proposed mitigation banks and followed approximately 27 existing mitigation banks through the interagency review team providing input and guidance in the process of permitting mitigation banks. Each mitigation bank can require multiple reviews and site visits resulting in an additional 150 comprehensive reviews.
- Staff participate in and chair the Coastal Pesticide Advisory Committee which includes state and federal agencies, research institutions and private entities for the purpose of reviewing issues related to pesticide use in the coastal zone and how it may impact fishery resources.
- Staff chair the S.C. Geologic Survey STATEMAP Advisory Committee providing recommendations on priority geologic mapping across the state based user needs, economic interests and other parameters.
- Bob Perry was selected by peers to represent multiple co-authors to present on Management and Sustainment of South Atlantic Coastal Impoundments for Waterbirds and Other Wetland Wildlife in a special, invited session entitled *Conservation and Management of Tidal Wetlands for Fish and Wildlife in the Face of Changing Environmental Conditions* at the 2016 Annual Conference of the Southeastern Association of Fish and Wildlife Agencies held in Baton Rouge.
- Our office participated in a workshop with DOT and Federal Highways and the regulatory agencies toward the development and implementation of an Advanced Mitigation Partnership between DNR and highway agencies; that partnership is now active and productive.
- Coordination with DOT began on the acquisition of the Jackson Tract (118.54 acres) adjacent to Henderson Heritage Preserve to restore Bridge Creek and two of its tributaries for impacts associated with the widening of S-126 (Belvedere-Clearwater Road) in Aiken County.
- Coordination with Mercedes Benz of Charleston and its agents began on the acquisition of an inholding tract in the Francis Marion National Forest to be preserved and subsumed into the National Forest for impacts associated with the expansion of the Sprinter Van Production Facility in Berkeley County.
- We participated in the development of a critical action plan and legislative recommendations for future management of the Pinewood Landfill, arguably the nation's most toxic landfill located near Pinewood, SC and Lake Marion.

- Coordination with DOT continued on the acquisition of Gunter's Island (approximately 6,100 acres) for mitigation to impacts associated with Interstate 73. These efforts included assisting DOT submit a revised mitigation plan for the project. After acquisition of this property DOT will donate the tract to DNR, and it will be incorporated and dedicated as a part of the Little Pee Dee Heritage Preserve.
- Working with CSX Railroad and its agents, DNR acquired the King Tract (100 acres), a strategic in-holding at Marsh Wildlife Management Area, as mitigation for wetland impacts associated with rebuilding a rail trestle over the Pee Dee River between Florence and Marion counties. This acquisition was subsumed into Marsh WMA.
- Working with Dorchester County Landfill and its agents, DNR is set to acquire by donation the Good Hope Tract (203 acres) on the Edisto River for inclusion into the WMA program. The U.S. Army Corps of Engineers issued a permit to Dorchester County Landfill which funded the acquisition by Lowcountry Land Trust, to allow donation of the property to DNR in early 2017.
- Working with the Conservation Fund, the Office of Environmental Programs continues to explore strategies to restore streams and wetlands on the Tall Pines Tract in Pickens County, with the long-term objective of acquiring the tract (1,250 acres) and establishing public use.
- Working with The Nature Conservancy and American Rivers we began a partnership in a science-based collaboration, the Pee Dee Clean Water Study Group, to protect water quality in the Pee Dee River Basin; this project has significant potential to generate millions of dollars for fish and wildlife enhancement and landscape habitat protection.
- Working with the U.S. Army Corps of Engineers we developed a draft of a long-anticipated General Permit covering most of the activities DNR performs that have potential impacts to Waters of the United States. This GP will be public noticed in early 2017 and be available for staff use shortly thereafter, saving considerable time, funding and gaining operational efficiency at the field level.
- Working with IT staff our staff developed a dock on the DNR website featuring the activities of our office as well as information and links to available resources. See: [www.dnr.sc.gov/environmental](http://www.dnr.sc.gov/environmental)

## Boating Access and Engineering Section

- The DNR's Boating Access and Engineering Section is responsible for major maintenance and renovation of some 440 boating access facilities statewide.
- Completion of one (1) new boating access facility in York County.
- Renovation of three (3) existing boating access facilities in Charleston, Georgetown and Horry Counties.
- Design and Construction of a large steel bulkhead wall at an existing boating access facility in Aiken County.
- Design and Construction of an additional fishing pier in Hampton County.
- Eight (8) new boating and fishing access projects were initiated in six (6) counties and are currently under development.
- Survey and design was completed in partnership with Santee Cooper for a fishing access facility in Berkeley County.
- Completion of designs for ADA upgrades to fire alarm systems at three (3) SCDNR facilities.
- Topographic surveys were completed for seven (7) new boating access and capital projects.
- Completed conceptual floor plan designs for proposed new SCDNR office at State Farmers Market site.
- Provided technical assistance to SCDNR Divisions in evaluating damages and estimating repair costs to agency properties as a result of Hurricane Matthew.



- Provided engineering and contracting support for capital projects for repairs of damages resulting from October 2015 flood.
- Construction management was provided by Engineering Section staff for a \$1.1 million renovation of the Waddell Mariculture Center Office and lab.
- Contract and construction management was provided by Engineering Section personnel for the repair/replacement of two (2) 14" diameter seawater intake lines at the Waddell Mariculture Center.
- A 25,000 acre boundary survey of WMA property in Marion County was completed by Engineering Section staff.
- An 8,000 acre boundary survey in the Jocassee Gorges WMA was completed by Engineering Staff.
- Numerous (10 to 15) small boundary surveys were completed by Engineering Section staff in support of Wildlife & Freshwater Fisheries and Land & Water Divisions.
- Accomplished the hiring of a Professional Engineer as well as a surveying assistant to fill 2 of 4 existing vacant positions. Filling of the engineering position with a licensed PE will ensure continuity in the program in future years.

## Special Assistant to the Director

- Continued to follow-up on accessibility needs at DNR facilities identified in the Self Evaluation and Transition Plan developed under the Americans with Disabilities Act.



- Continued to coordinate and guide the maturation of the SC Quail Council, and assist the WFF Division in the establishment of 4 Focal Areas for implementation of the SC Bobwhite Initiative. Also a group was organized in conjunction with Tall Timbers and Quail Forever and one meeting held to discuss establishment of a funding arm for the SC Bobwhite Initiative.
- A partnership was formed with the U.S. Forest Service and Quail Forever to fill a biologist position in support of the Indian Creek bobwhite Focal Area. One of two Natural Resources Conservation Service contribution agreement biologist positions was also filled to support the SC Bobwhite Initiative.
- The Special Assistant to the Director completed the second year of a two-year term as Chair of the Atlantic Coast Joint Venture (ACJV) Management Board. The ACJV is a habitat partnership in the 17 Atlantic states from Maine to Florida, and Puerto Rico.
- The Special Assistant to the Director also continued to represent the agency on the South Atlantic Landscape Conservation Cooperative Steering Committee, and accepted an appointment to the SALCC Executive Committee. The SALCC includes parts of six states from southern VA to Florida, and is part of a broader network of 22 cooperatives across North America and the U.S. Pacific and Caribbean islands. Each regional LCC is designed to foster shared conservation action among multiple public and private agencies and organizations.
- SCDNR partnered with Clemson University to complete a study to evaluate the economic impact of natural resource related activities to the South Carolina economy. More than \$33 billion of economic activity is attributed to SC's natural resources sector annually.
- The annual meeting of the Clemson University-SCDNR Cooperative Agreement Coordinating Committee was organized in collaboration with the Clemson Department of Forestry and Environmental Conservation. The Special Assistant to the Director also served on Clemson's James C. Kennedy Waterfowl and Wetlands Center Advisory Board.
- The Special Assistant to the Director accepted an appointment as Chair of the Association of Fish and Wildlife Agencies Resident Game Bird Working Group, which includes a seat on the U.S. Committee of the North American Bird Conservation Initiative.
- Represented SCDNR on the National Bobwhite Conservation Initiative Management Board.

## Office of Media and Outreach - Palmetto Sportsmen's Classic, Camp Wildwood, Social Media, South Carolina Wildlife Magazine, Graphics, Litter Prevention, Video, Public Information, Diversity Outreach

- Marketing campaigns for 2016 consisted of 100 Deadly Days and the Apprentice Hunting License
- Partnered with the National Shooting Sports Foundation to capture shooting range locations throughout the state.
- Partnered with National Shooting Sports on pilot apprentice license campaign
- Partnered with the South Carolina Association of Tourism Regions on the development of a statewide promote of natural resources and outdoor recreation.
- Partnered with the South Carolina Association of Tourism Regions and the Department of Parks, Recreation and Tourism on the development of a fishing insert for the Annual Visitor's Guide.
- Coordinated efforts with Guy Harvey Magazine on the production of the first South Carolina specific issue to be distributed March 2018.

### Palmetto Sportsmen's Classic

- The Palmetto Sportsmen's Classic's net profits increased 23.7% from the previous year. A profit of \$184,360 was raised for the Harry Hampton Fund.
- Overall, operating costs for the 2016 show were down. Advertising, entertainment, and rental of the property all went down. In 2015, the overhead for the Palmetto Sportsmen's Classic was approximately 53%. This year, we cut the overhead down to 46%. The dramatic decrease was due to the decrease cost in expenses coupled by an increase in vendor revenue.

### Camp Wildwood

- For the first time in Camp Wildwood history, we were able to fill all campers spot's by April 1st, 2016. By June we had a waiting list of over 20 campers, another first.
- Quick look at camper evaluation (75% 2016 campers responded)
  - 98% of responding campers evaluated their experience as either "Time of your life!" or "Excellent". (79.0% and 19% respectively)



- 85% responded "Yes" to the following question: "After attending Camp Wildwood, do you think you are more likely to purchase a hunting and/or fishing license?" Camper's ages range from 14 – 17 years old.
- 74% responded "Yes" to the following question: "In the next 12 months, do you think that you will purchase a hunting and/or fishing license?"

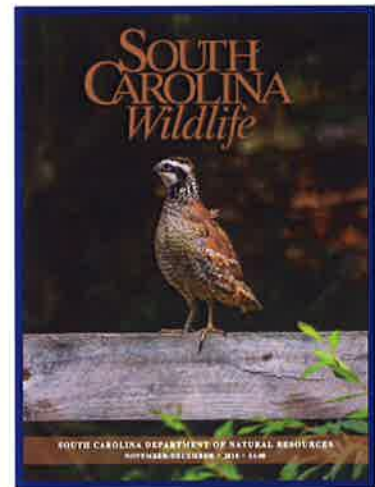
### Social Media

- Facebook: Our SCDNR Facebook Page had our first "Viral" post (see picture attached). During the aftermath of hurricane Matthew we posted a before and after pic of Palmetto Blvd, Edisto Beach, SC. Stats: Over 1.3 million views, 2,400 reactions and over 14,000 shares.
- Instagram: Over the course of 2016 our DNR Instagram account tripled the number of followers. Currently we have 13,700+ followers.



## South Carolina Wildlife Magazine

- Increased number of subscribers by about 1,000 since January 2016
- Formulated a plan and started work on a new digital "magazine," SCWild online, for a teen/younger adult audience for NO ADDITIONAL COST (first issue to appear in April 2017 as a digital download)
- In cooperation with DNR Video, implemented a series of short videos, one or two per issue, to accompany SCW articles
- Began using multiple media available to us to promote SCW and make additional content available to readers

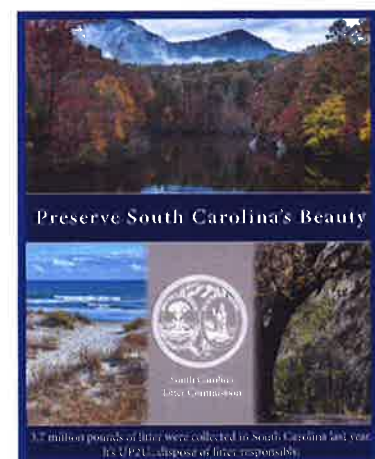


## Graphics

- 1 staff member completed the CPM certification and graduated in May
- 1 staff member has taken training to take the Certified Associate in Project Management Certification Exam
- Designed the Set your hook logo for the campaign and FLW Bass Fishing Magazine Ad
- Illustrated and designed the 1st Bilingual Coloring Book
- Designed the Liberty Hill and ICAST display
- Created and designed the promotional items for the 75th WMA anniversary to include the timeline and posters
- Continue to make all our forms fillable and accessible to include creating and updating 17 fillable forms where they are 508 compliant
- Designed and assembled the SC Geology Report #49
- SCDNR Lobby pictures/beautification project
- Completed 374 Jobs

## Litter Prevention

- Prepared and on-time delivery of legislative report to the general assembly as required by the statute
- Joint outreach project with Diversity Outreach at BMW – Earth Day
- Joint venture with Sea Turtle Hospital & SCDNR MRD: The Impact of Marine Litter
- Presentation to Mayor of Holly Hill: innovative ideas to combat litter issues
- Court Administration approves community service forms for Summary Court Judges



## Video

- Produced videos and helped promote projects undertaken by Diversity section (Alix)
- Assisted Aquatic Education section with videos and planning
- Played a large part in the promotion of the 75th anniversary celebration of public lands in SC
- Continued to stream/videotape SCDNR board meetings for online posting
- Began a series of 'video sidebars' to accompany South Carolina Wildlife articles
- Produced two boating safety spots for Law Enforcement, including our annual Deadly Days production



- Videotaped striped bass and shad spawning at Bayless hatchery for public education videos
- Got certified through the FAA and began using a quadcopter (drone) for aerial video and photos
- Began a major video production highlighting 'mitigation success stories' in South Carolina
- Produced the first ever SC WILD podcast

## Public Information – Upstate

- Hurricane Matthew lane-reversal duty on I-26 in Orangeburg County
- Worked seven days on the Pinnacle Mountain Fire in Pickens County
- Published two issues (spring-summer and fall winter) of Jocassee Journal newsletter
- Instructed two Jocassee Gorges classes for Clemson University's Osher Lifelong Learning Institute (OLLI)
- Served as DNR liaison for Upstate Master Naturalist program, a program of Clemson Extension Service in partnership with S.C. State Park Service

## Public Information – Midlands

- Facebook has reached nearly 82,000 'likes'
- First Facebook Live videos were hosted (gopher tortoise release, snakes at Wateree Field Day, Everything Quail) with great interaction and reviews from the public
- Twitter has reached 13.5K 'followers'
- I worked ESF-15 for Hurricane Matthew for 17 days and SCDNR got a lot of push due to my photos (SCEMD, press conferences, aerials, damage, flooding) being shared on social media and by multiple agencies for different uses
- A video I put together about SCDNR officer efforts during Matthew was shared multiple times and received more than 19K views on Facebook
- The aerial cell phone footage I shot of Matthew flooding in Mullins received more than 17K views on Facebook
- Cell phone footage I shot of Charleston traffic during Matthew received more than 18K views on Facebook
- Multiple SCDNR events (Wateree Field Day, gopher tortoise release, Austin Sheheen Sr. Natural Resources Area dedication, Wateree River Correctional Institution Fishing Rodeo, mobility impaired hunt, 2016 NASP World Championship) were photographed and shared on social media

## Public Information – Lowcountry

- Created and began publishing the SC Natural Resources Blog. Since going live in August, the SCNR Blog has been steadily gaining new readers. In December, the blog garnered unique 1,144 visits and 2,185 page views. In addition, nearly 8,000 people have signed up to receive monthly "newsletter" updates on the articles and information posted on the blog.
- I completed training to become a GovDelivery Administrator. We (OMO staff and others) have worked with IT to implement GovDelivery, providing us with a way to send targeted e-mail messages on a variety of SCDNR related topics and programs to people who have affirmatively asked to receive those e-mails, and also to media outlets. This is a huge leap forward in our communications ability.

## Diversity Outreach

- Maintained the SCDNR Spanish website. The average requests per pages went from 43,883 in 2015 to 158,846 in 2016. Added over 55 news and articles through 2016.
- Attended Hispanic Festivals and outreach events, reaching more than 6,000 participants in 2016.
- Supported 14 SCDNR events offering bilingual capabilities.
- Maintained and promoted the Spanish YouTube channel, the videos views averaged over 1,150 in 2016 alone.
- Maintained and promoted the Spanish Facebook page. We have over 620 followers and an averaged reach of 10,000 people.
- Maintained partnerships with National and International agencies. In 2016, we also gained support for our outreach efforts from Horry Georgetown Technical College, Central Carolina Technical College and the University of South Carolina.
- Introduced the SCDNR Hispanic Outreach Program to other state and natural resources agencies through 10 presentations at national level conferences and summits.
- Worked with the SCEMD public information office to aid in the emergency response through Hurricane Matthew.
- The Diversity Outreach Coordinator was recognized nationally by The Wildlife Society with the 2016 Diversity Award for reaching out to minority groups and teaching them about nature-related outdoor activities.
- Received the Diversity Inclusion in the Workplace Award from the Southeastern Association of Fish and Wildlife Agencies.





# Land, Water and Conservation Division

- Established separate Surface Water and Groundwater Programs within the Hydrology Section of the Earth Science Group to better address needs for information and capitalize on staff expertise in these areas.
- Worked diligently and made major progress on the Surface Water Assessment and Modeling Project in the eight major river basins as the initial phase of The State Water Plan update in cooperation with DHEC, USGS, the CORPS and Clemson University. Model completion projected to be late February.
- Conducted 8 stakeholder meetings for the Surface Water Assessment Project (total of 15 stakeholder meetings to date for the 2 year project)
- Began water demand projections in the Savannah Basin in cooperation with the Corps of Engineers through their Planning Assistance to States (PAS) Program.
- Held two workshops on streamflow monitoring and recommended 36 new sites for streamgages.
- Made substantial progress on the Savannah River Comprehensive Study Phase II, completing the Savannah Harbor Dissolved Oxygen Model and coordinating with the Corps, TNC and Georgia EPD. Completion of Phase II expected by the end of May.
- Active in drought monitoring and began a Statewide Evapotranspiration Project with the College of Charleston and USDA Forest Service.
- Obtained a \$170,000 grant from DHEC which was used to establish groundwater monitoring wells in Sumter County and analyze for saltwater intrusion into coastal aquifers.
- Continued to work on the Aiken County Groundwater Model in cooperation with the U.S. Geological Survey.
- Began groundwater assessment and modeling of the entire coastal plain in cooperation with the U.S. Geological Survey and Corps of Engineers (PAS funding).
- Began measuring the three major aquifers to produce new Potentiometric Maps in support of the regional groundwater assessment of the coastal plain.
- 473 wells measured in cooperation with Savannah River National Laboratories, USGS and DHEC.
- Received a grant from the USGS National Groundwater Monitoring Network and added maps and tables to the national database.



- Finished new, digital 1:24,000 scale maps of the coast from Santee Point to Little River under multiple grants from the USGS Statemap Program.
- Finished work on 17, 1:24,000 scale maps across the mountain bridge area of the inner piedmont.
- Began work on a regional compilation of the Carolina Terrane in cooperation with the University Of South Carolina to produce information for updated earthquake hazard analysis and economic development.
- Received a \$160,000 grant from EPA to study possibility of land subsidence related to groundwater withdrawal in Georgetown County.
- Established a combined Hydrology/Geological Survey Coastal Program at Ft. Johnson with Dr. Will Doar as team leader.
- Worked to expand the coastal saltwater intrusion network, adding seven new monitoring sites.
- Worked on both the Murrells Inlet to Capers and the ACE Basin Coastal Vulnerability Projects to demonstrate physical change on the shoreline.
- In cooperation with Coastal Carolina University, produced an offshore map from Winyah Bay to Little River.
- Measured the surface elevation table network along the coast quarterly.

- Received a \$450,000 grant from the U.S. Bureau Of Offshore Energy Management (BOEM) to analyze both regional and state offshore sand resources in cooperation with MRD, Georgia and North Carolina (Skidaway Institute of Oceanography and East Carolina University)
- Facilitated and cost shared with SCDNR wildlife biologists to restore or improve habitat on SCDNR properties by controlling invasive aquatic vegetation on 2087 acres.
- Santee Coastal Reserve-helicopter application to control 1500 acres of phragmites on Santee Coastal Reserve impoundments to improve habitat.
- Samworth- helicopter application to control 296 acres of white marsh grass.
- Hatchery- helicopter and boat application to control 104 acres.
- Donnelly- helicopter and boat application to control 43.5 acres.
- Bonneau Ferry- helicopter and boat application to control 72.5 acres.
- Sandy Beach- boat application to control 22 acres.
- Santee Cooper- boat application to control 5 acres.
- Wood Stork Rookeries- boat application to control 45 acres
- Facilitated and cost shared with USFWS and The Nature Conservancy to improve habitat by controlling phragmites in and around the ACE Basin (helicopter application on 27 acres).
- Facilitated and cost shared with Santee Cooper, USFWS and SC Waterfowl Association to improve habitat by controlling giant cutgrass in the Santee Cooper Lakes ( helicopter applications on 125 acres in National Wildlife Refuge and 366 acres in the Santee Cooper Lakes).
- Facilitated and/or cost shared with other local and private entities to improve habitat and recreational use by controlling numerous species in other public waters.
- Chaired and staffed four meetings of the SC Drought Response Committee to take appropriate action on drought status designations.
- Enhanced and expanded the weathertalert email notification system (2,668 subscribers).
- Collected, analyzed and consolidated data on rainfall, streamflow and damage from the 2015 flood and 5 tropical systems impacting the state during 2016
- Published an article on the Historic South Carolina Rainfall and Major Floods of October 2015 in the 2016 Journal of South Carolina Water Resources.
- Assisted state and federal agencies and the public in data acquisition and forecast interpretation before, during and after tropical events, severe weather, winter weather, droughts and special event planning.
- Flood mitigation group assisted law enforcement and EMD before, during and after Hurricane Matthew in providing flood inundation and streamflow information.
- Conducted aerial and ground surveys of Hurricane Matthew affected areas and provided support to FEMA representatives before, during and after the event.
- Conducted 797 Substantial Damage Estimates for flood damaged areas, primarily in Marion County.



- Provided flood mitigation and damage estimate training to the following communities:
 

Town of Edisto Beach	Marion County
Town of Hilton Head Island	Dillon County
City of Summerville	Horry County
City of Hanahan	Allendale County
City of Florence	Jasper County
City of Dillon	Colleton County
Dorchester County	Beaufort County
Darlington County	
- Flood Mitigation staff and Deputy Director conducted 10 open house meetings and 7 preliminary DFIRM Community Coordination meeting for updating flood maps.
- Released preliminary maps in 4 watersheds and 2 counties.
- Flood Program Manager, Maria Lamm, was elected Vice Chair of the National Association of State Floodplain Managers.
- State Climatologist, Dr. Hope Mizzell, was elected President of the American Association of State Climatologists.
- Completed the restoration and cataloging of archeological artifacts damaged in the 2015 flood.
- Retired the bond debt for the Heritage Trust Fund, saving over \$900,000 in interest.
- Hired additional archeologist to assist in field work on archeology projects, including the initial surveys of the new Wateree Heritage Preserve.
- Completed the Tabby Restoration Project at Fort Frederick, completed archeology reports (underwater and terrestrial) and made major progress on the reestablishment of the boat landing in cooperation with Beaufort County.
- Fort Frederick 30 minute documentary completed (won Telly Award for best documentary).
- Began the Tabby Restoration Project at Botany Bay ice house, barn and gardener's shed.
- Completed structural and restoration analysis of Poinsett Bridge.
- Designed Poinsett Bridge Trail System, removed problem trees and installed new sidewalk.
- Assisted in the review of FERC Relicensing for the following hydropower projects:
  - Parr Shoals
  - Catawba-Wateree
  - Bad Creek
  - Keowee-Toxaway
  - Cherokee Falls
  - City of Columbia
- Conducted another successful SC Envirothon, with 180 high school students participating. The winner, Spartanburg High, went on to place third in the national competition.



# Law Enforcement Division



- The Law Enforcement Division awarded 85 salary increases to sworn and non-sworn personnel.
- Officers with rank of Captain and below were compensated for their accrued comp time from the 2015 1000 Year Flood Event.
- The Investigations Section was expanded with the addition of an Investigator for Region 3.
- The Education Section was expanded with the addition of a Youth Shooting Sports Coordinator.
- The dive team expanded from 12 to 16 divers along with 2 vacancies being filled.
- Pfc. Wes Stewart was chosen as the Southeastern Association of Fish & Wildlife Agencies Officer of the Year.



- Region 3 was reorganized by creating new units of Lexington, Richland, Saluda/Newberry, and Allendale/Bamberg.
- Marcus Smith, Hogan Tyler, and Chip Allen were promoted to 1st Sergeant in Region 3.
- Scott Stephens was promoted to Staff Sergeant as Coordinator over Youth Shooting Sports.
- L/Cpl. Ray Forrester was selected as Education Coordinator for Region 2.
- Michael Brock and April Smith were promoted to Investigator III in the Investigations Section.
- Greg Lowery was promoted to 1st Sergeant in Region 2.
- Andrew Godowns was promoted to 1st Sergeant in Region 4.
- Ken Cope was promoted to 1st Sergeant over LE Outreach.
- Nate Hutson was promoted to 1st Sergeant over EMD in Staff Operations.
- George Dukes was promoted to Lieutenant in Staff Operations.
- Matt McCaskill was promoted to Captain over Region 2.
- Gary Sullivan was promoted to Major over Region 4 and Investigations Section.
- Brian Welch was added to the Executive Protection Detail bringing a total 4 DNR Officers being assigned to executive protection.
- With almost 40,000 Law Enforcement contacts (summons/warnings), complaints against officers have been extremely minimal.
- Officers issued 9,977 summons from January 1, 2016 thru December 31, 2016.
- Officers issued 29,166 warnings.
- Officers cleared 257 Warrants.
- Officers spent 52,253 hours on boating patrols resulting in 96,211 boats being inspected.
- 7,491 hours conducting Search and Rescue Missions.
- Congratulations to Region Officers of the Year: Region 1 Pfc. Ryan Abernathy, Region 2 Pfc. Wes Stewart, Region 3 Pfc. Ed Laney, Region 4 L/Cpl. Mike Brock, and Investigations Sgt. JB Kinsey.
- Pfc. Jordan Douglas was chosen as the SC NASBLA Officer of the Year.
- Sgt. Jim Shelton was chosen South Eastern Region NASBLA Boating Educator of the Year.
- Mona Rhoden was awarded 2015 Employee of the year for the Law Enforcement Division.
- Courtney Angotti-Smith was hired as Administrative Assistant for the Marine Investigations Office.

- 1st Sgt. Davis presented at the 2016 Southeastern Association of Fish and Wildlife Agencies (SEAWFA) on the Seahawk IOC, and the benefits the department has gained as a member.
- 3 supervisors are completing the 18 month CPM training: Captain Swink, Lt. Thomas, and Lt. Corbett.
- 3 supervisors have started the 18 month CPM training: Lt. Ard, Lt. Simmons, and 1st Sgt. Baker
- Captain Thames, Lt. Pritcher, and Lt. Simmons completed the FBI Carolina Command College.
- Major Carey and Lt. Riley completed the NACLEC 3 week Leadership Academy in Shepherdstown, WV.
- SCDNR Cooking Team prepared and served meals for 110 people attending the graduation of the NACLEC Leadership Academy conducted at the USFWS Training facility located in Shepherdstown, WV which included National and International attendees from Africa.
- Officers Player Aston and Will Joyner finished 1st and 2nd in their Federal Marine Law Enforcement Training Program at FLETC in Glynco, GA.
- Held the Retirees Luncheon at Styx compound where we provided meals, fellowship, new ID's and weapon qualifications to 65 retirees.
- LE Division was awarded \$352,000.00 through the Department of Justice JAG Grant Program for communications equipment upgrades.
- Developed the policy regarding the use body worn cameras which received approval from the SC Criminal Justice Academy.
- Developed policy for reinstatement of the K-9 program.
- Purchased Didson dual frequency acoustic imaging unit with accessories. The Didson unit is state of the art technology used for the location of evidence and recovery of victims of drowning and boating related deaths. The unit has been used in 4 recovery operations with 3 victims being recovered.
- Successfully completed 2 day federal audit of the State Recreational Boating Safety Grant conducted by the United States Coast Guard.

## LE Division Significant Events

- Established a new fishing rodeo with the Wateree Prison where 40 youth from the Epworth Children's Home, Crowell Home for Children, and Turbeville Children's Home participated.
- Memorial Day Bike Week – 96 officers were deployed during this detail which involved assisting four (4) agencies; Horry County PD, Myrtle Beach PD, SLED and Surfside PD.
- Special Operations – 71 SCDNR officers participated in several events at the State House during 2016 to include: Martin Luther King Parade, Black Lives Matter rallies, Honor Rally, Tunnel to Towers Event.
- Hurricane Matthew – 205 SCDNR officers and 32 Department Deputy Officers were deployed for Hurricane Matthew and lane reversal operations.
- Hurricane Matthew Flooding Event – 173 DNR officers were deployed to search and rescue, security, river sweeps and flooding operations post storm which lasted almost seven weeks.
- Town of Nichols – SCDNR Law Enforcement Officers continued to provide post storm security to aid the Nichols PD 24 hours a day for several weeks after deployed officers were released from the initial deployment. Officers rescued over 150 residents from the rising flood waters. Once residents were out of harms way Officers re-entered the area to protect the evacuated homes and businesses and daily provided rescues of family pets and farm animals until flood waters receded.
- Aided in the investigation of a deceased elderly female missing from a local nursing home. The victim was missing an arm when located in a nearby pond, the alligator was located and the arm retrieved once humanely euthanized.
- Divers recovered an automobile from the Little Pee Dee River in Dillon County containing a murder victim inside of the trunk.

- Shrimp & Grits – 16 Officers and DNR Aviation assets participated in a joint operation involving local, state and federal agencies along the entire coastline of South Carolina for the enforcement maritime security operations.

## LE Division Significant Cases

- SCDNR Law Enforcement Division continues to aggressively investigate and prosecute the illegal killing of protected birds of prey.
- PFC Ed Laney completed a 2 year investigation of a quail plantation trapping and killing birds of prey. Laney served search and arrest warrants on 3 subjects all charges were found guilty in Magistrate and General Session Court.
- A Fatal Boating Accident was successfully prosecuted by Investigator Tony Spires and Clarendon County Officers. A 21 year old Sumter woman was killed when a boat struck the boat she was sitting in July 4<sup>th</sup> weekend. The defendant received 5 years in prison for failure to render aid and reckless operation.
- Aviation section documented over 100 dove fields, including 22 previously undocumented fields and 8 of those confirmed as baited fields. Documented 47 wetland sites for duck bait, resulting in 7 potentially baited sites and 1 site confirmed baited.

## Field Operations Regions 1-3 - Major Jamie Landrum

### Region 1 Accomplishments - Captain Mike Isaacs

- Received Palmetto Pride Grants for Edgefield, Spartanburg, and Greenville Counties totaling \$7,890.00. Purchased Leopold Binoculars and Plot Watcher Cameras to investigate and prosecute Litter violations.
- Coordinated 7 fishing rodeos throughout the Region.

### Region 2 Accomplishments - Captain Matt McCaskill

- Coordinated 4 fishing rodeos throughout the region, and added one new rodeo at Camden Historic Site.
- Officers attended active shooter training w/ SChP, and completed numerous details at the State House (KKK/Black Panther rallies, Black Lives Matter, etc.).
- Completed security and rescue missions from Hurricane Matthew and subsequent flood, and continued with 24 hour security missions in Marion County and Nichols area until Thanksgiving.

### Region 3 Accomplishments - Captain Harvin Brock

- Conducted 3 Fishing Rodeos to include a new rodeo at Wateree Prison.
- L/Cpl. McDaniel has implemented a new process for warrant serve cutting the backlog in half and collecting \$12,100.00 in outstanding fines.
- L/Cpl. Salters instructed many state and local agencies in Active Shooter Response Techniques.
- Assisted with the Underwater Post Blast Training conducted on Lake Murray. This training was attended by Federal, State, international, and Local Law Enforcement Agencies. The class was very successful and will be the only location this training will be offered nationwide in the future.
- Region 3 Officers seized illegal deer antlers, elk antlers, black bear rug, and deer mounts using buy/bust operations.
- First Sergeant Marcus Smith put on a hunt for 10 terminally ill children in Saluda. The attendees were provided a midday meal, rifle, camo clothing, and hunting accessories.
- SGT Brett Bannister organized and held on his property 3 separate youth hunts for children. The first was a turkey hunt through the Make-A-Wish foundation for a child with a terminal tumor around his spinal cord. This was the only Make-A-Wish hunt in S.C. and was hosted by Hank Parker for his TV show. SGT Bannister also held a youth duck hunt for two underprivileged children as well as hosted a wheelchair based turkey hunt.

## Field Operations Region 4 & Overt / Covert Investigations – Major Gary Sullivan

### **Region 4 Accomplishments - Captain Gentry Thames**

- Completed agreement for FY 2017 JEA Contract with NOAA OLE. Implemented FY 2017 JEA Contract and working toward meeting all requirements/purchases by the end of FY 2017.
- Conducted 6 Fishing Rodeos throughout Region. Established new locations within Counties that had not previously had fishing rodeos.
- Participated in Multi Agency (state and local) Coast wide patrols focusing on Homeland and Port Security inspection of Recreational and Commercial vessels on coastal waterways.
- Assisted USCG with escorts of Carnival Cruise ship entering and exiting Port of Charleston for Port Security/Homeland Security Missions.
- Continued coordinated joint operations with USCG Station Charleston. (DNR and USCG personnel work jointly on DNR vessels conducting recreational and commercial boating and fishery inspections).

### Overt / Covert Investigations – Lt. Donnie Pritcher **Section Activities**

- Issued 108 summons, 533 warnings, 2 warrants, and collected \$18,833.90 in fines
- Worked 27 boating related deaths (23 are Reportable Boating Fatalities)
- Investigated 2 Hunting Incident Fatalities.
- Investigators managed 18 Law Enforcement Officer Applicant Background Investigations.
- Investigators now assisting with Marine Debris Clean-up from Hurricane Matthew.
- 864 Marine Theft Investigations were conducted.
- 60 No Wake Zone Investigations were conducted with 4 new No Wake Zones being approved. The Wappoo Cut NWZ was expanded as a seasonal NWZ.
- 10 B-SAF patrols were conducted with 1,519 boats being inspected.
- Approved 629 Marine Events for the year.
- Streamlined the approval return documentation for approved Marine Events to requestor and Region.

### **Diving Operations**

- 43 Dive assignments were responded to this year.
- 19 body recovery assignments consisting of 32 days in the water resulting in 10 recoveries.
- Made evidence recovery on 9 of 12 dives.
- Assisted the department by placing nets for 1 fishing rodeo.
- 154 in water hours were spent raising 2 sunken vessels on the Stono River (40' Egg Harbor) and Bohicket Creek (27' O'Day).
- JB Kinsey was elected President of the SC Law Enforcement Dive Association.
- Coordinated SC Law Enforcement Divers Association training in Charleston. Conducted 2 training sessions with over 40 divers attending the 2 day seminar.
- 18 Divers were certified in Nitrox and Oxygen Provider.

## Covert Operations

- 161 requests were received for assistance with intelligence and investigations.
- 3 Investigators attended tri state (USFW, SC, NC, and GA) covert meeting in North Carolina.
- 2 Investigators attended and completed the 2 week Wildlife Investigators Covert Academy in Denver Colorado.
- Received 41 tips/information from Web Master/Social Media Section of DNR in reference to possible illegal activities developing into 32 investigations.
- Conducted 7 Intel/background checks for SCDNR reptile permit applicants resulted in 6 permits being issued.
- Closed 3 long term investigations in reference to the sale of wildlife (venison and alligator), Sale of raccoons, importation of antelope, and the taking of game fish illegally/trespassing. All resulted in 37 contacts being issued by Regional Officers.
- Conducted operations at flea markets in the upstate of SC targeting the sale of wildlife, fish, reptiles, and seafood. Resulting in 3 cases being made.
- Conducted operations at reptile shows in the upstate of SC targeting the sale of protected reptiles and snakes to gather intelligence.
- Installation cameras and provided Intel on 3 illegal dump sites resulting in 3 cases being made.

## Training

- 1 Investigator attended NASBLA Boat Accident Training Phase I and II.
- 1 Investigator attended NASBLA Boat Accident Training Phase I.
- 1 Investigator attended BUI Instructor School.
- 1 Investigator conducted training at the NASBLA Training Seminar.

## Aids to Navigation Operations

- Surveyed 2200 aids to navigation buoys and replaced 300 missing or damaged buoys/signs.
- Created maps of existing no wake zones and buoy locations for Region 2 and working on Region 3 for aids to navigation files.
- Replaced or reset buoys and signs on the coast after Hurricane Matthew. As well as marking or securing hazards to navigation found during post storm patrols.

## Staff Operations Accomplishments - Major Mark Carey

### Law Enforcement Education & Outreach – Captain Billy Downer

### Hunter Education

- 12,205 students taught Hunter Education Course for 2016.
- 6,203 students completed the Internet Only Hunter Education Course in 2016. This course option allows students to complete their hunter education requirement totally online.
- 6 Hunting Clinics were offered across the state in an effort to teach specific hunting skills to Take One Make One Students as well as the public.
- Assisted with Cadet Academy and held a range day.
- 21 students participated in the Clemson University College Hunting Clinic. 21 students attended this class and 11 were taken on their first deer hunt afterwards.
- Provided shotgun and archery training for the Continuing Education Event held by the SC Women Lawyer's Association.

- A Range Day was held at the Wateree Range for the Wateree Heritage Preserve Open House in September.
- Continued radio initiative in partnership with the weekly "SportsTalk" with Phil Kornblut. Every first and third Wednesday evening from 7:30-8:00PM, DNR is given a 30 minute segment to discuss hunter and boater education issues in a call-in format. This new initiative allows DNR to get out important issues facing our hunters and boaters.
- 80 volunteers attended the Annual Volunteer Hunter Education Instructor Banquet was held to honor volunteers and highlight program successes.

## Boater Education



- 4,405 students were taught the Boater Education Course.
- 15,000 people were trained at 45 events using the Virtual Boating Simulator Trailer.
- 12,000 SC Boater Handbooks were distributed at local landings and marinas across the state. This continues a successful partnership with US Coast Guard Auxiliary for teaching boater education.
- Continued the partnership with Wendy's for the "I Got Caught Wearing My Lifejacket" tickets for a free Frosty in support of youth boating safety.
- Held annual Ladies on the Lake event at Lighthouse Marina on Lake Murray for 30 women. Taught boat trailering & backing as well as basic boat operation.

- Boating Safety Radio commercials aired at all Carolina & Clemson Baseball games during March and April.
- Coordinated Boating Safety displays at Clemson and Carolina baseball games. The 17 foot Boating Safety Wrapped Pioneer Boat was at both baseball games.

## Archery in the Schools

- 1925 students participated in 5 Regional Archery Tournaments across the state in an effort to allow more schools to participate in a tournament experience.
- Held 11th annual South Carolina Archery in the Schools state archery tournament at the Sumter Civic Center in March of 2016. The event was expanded in 2016 from a two day event to a three day event to accommodate more shooters in all three division. A total of 1,078 students participated in this 3-day event.
- Thanks to a grant from the Hampton Wildlife Fund and other sponsors, \$7,000 in college scholarships were presented to graduating seniors during the High School Division portion of the State Archery Tournament.
- 4,000 archers from across North America attended the 4-day National Archery in the Schools Program World event in Myrtle Beach at the Sports Complex as well as the World IBO 3D Challenge hosted by SCNDR.
- A 3D IBO NASP fun shoot was held in July at the Belfast Archery Range for 46 shooters.
- There are 40,000 students actively shooting archery in 358 schools across SC.



## Take One Make One



- Take One Make One coordinated 65 hunts in 2016 with 255 participants.
- TOMO Trailers visited 106 events with 23,085 people participating in 2016.

## Youth Shooting Sports

- SCDNR sponsored the second annual SCDNR Sporting Clay Open at the NWTF Palmetto Shooting Complex in Edgefield, SC. 525 students and 1600 people total were in attendance at our second year event.
- In partnership with sponsors like Harry Hampton Wildlife Fund, Bass Pro Shop, Cabela's, and Rio Ammunition, a total of \$49,000 in college scholarships were presented to graduating seniors who attended youth shooting sports events.
- SCDNR sponsored four skeet and trap events in 2016, including the First Annual Skeet & Trap Championship in February.
- 284 youth shooters attended the 2nd Annual SCDNR Youth Skeet Open was held at the Palmetto Shooting Complex in Edgefield, SC making it the largest youth skeet event in South Carolina.

## Ranges

- Continue to work with the US Forest Service to complete the renovation of the Twin Ponds Rifle Range. The new range will include a 16-station 100 yard rifle range and an 18-station 25 yard pistol range.
- Completed purchase of Indigo Gun Club in Richland County in May 2016. The facility will be known as the SCDNR Wateree Range.
  - Completed renovation of skeet ranges and build new covered five stand shed.
  - Installed new machines on all four skeet fields, the trap field, and the five stand thanks to a \$67,000 donation from the Boyd Foundation.
  - Youth Teams began practicing on the skeet range and five stand in November and December.
  - Once complete, the Wateree Range will offer public opportunity for Skeet, Trap, Sporting Clays and rifle/pistol ranges.
- Completed the Ceramtec Archery Park with the City of Laurens and held grand opening ceremony in April.

## Honor Guard

- Conducted 1 funeral detail with flag folding ceremonies.
- 3 Color Guard assignments were conducted, including one for the Association of State Criminal Investigative Agencies Conference hosted by SLED in Charleston.



## EMD/Supply/Dispatch/Radio Communications/Aviation – Captain Karen Swink

### EMD/Homeland Security

- Participated in five (5) FNF Table Top Exercises for Plant Vogtle, Catawba, Oconee, VC Summer and the Governor's Annual Table Top. In addition, SC DNR participated in two (2) Full Scale Graded exercises for Catawba and Oconee facilities.
- Consulted with Region Captains to update Hurricane and Winter Storm response plans.
- Hosted a three day Radiological Nuclear Detection Concepts, Tactics and Integration (RCTIC) course in Moncks Corner. Ten (10) Federal instructors conducted the training with twenty-four (24) officers from local, state and federal agencies.

### SEAHAWK

- 1st Sgt. Davis continued to work intelligence requests during the pretrial hearings, and jury trials, for two high profile cases in the Charleston area:
  - North Charleston PD officer involved shooting, Michael Slager.
  - The Emmanuel Church shooting involving Dylan Roof.
- 1st Sgt. Davis participated in twenty-one (21) MASFO's (Multi Agency Strike Force Operations), two (2) Hammerhead (Heightened Activity Maritime Response Harbor Enforcement and Deterrence) operations, and six (6) Cruise Ship operations.
- 1st Sgt. Davis has completed 126 intelligence requests.
- Assisted in command post for Memorial Day Boke Weekend in Myrtle Beach, SC.

### Aviation



- Conducted 187 Flights resulting in 692 flight hours
  - Conducted 278 DNR LE Flight Hours ( Night Patrols, Bait Patrols)
  - Conducted 38 Restricted LE Flight Hours (SLED/DOC/DEA)
  - Conducted 130 Search and Rescue Flight Hours
  - Conducted 52 JEA Flight Hours
  - Conducted 142 Reef/Biology Flight Hours
  - Conducted 7 SCEMD/SCDPS Hurricane Evac Ex Flight Hours
  - Conducted 29 Hurricane Matthew
  - Conducted 11 Training and Maintenance
- April 10, 2016 after an exhaustive 6+ hour search for lost kayakers that involved a Coast Guard C130, two Coast Guard MH-65 helicopters, a Coast Guard Auxiliary C-182 and a Charleston Co. helicopter. SCDNR Aviation section spotted the distressed young man alive and coordinated the recovery of the individual and transportation to medical personnel for treatment.
  - The P68 was used with the Dept. of Energy's MDDU system during Operation Shrimp and Grits. The aircraft served as the airborne radiological monitoring station during the exercise. The aircrew coordination and operation of the equipment received numerous accolades and was a focal point of a DOE article about the MDDU system.
  - Made numerous SCDNR Aviation presentations to schools, job shadowing programs, and veteran's groups.
  - Completed an MOU for the Dept. of Corrections regarding prisoner extraditions.
  - Completed In-House FLIR training resulting in 27 new/recurrent FLIR operators.



- Obtained FAA BFR/CFI renewal.
- Assisted with the following cases and warnings: 19 Shining, 1 Possession of Marijuana, 1 Alcohol violation, 6 simple night hunting, 3 warnings for Minor in Possession, 3 warnings for rabbit hunting out of season, 2 warnings for no hunting license, 2 warnings for simple trespass, and 2 warnings for ATV Safety Act as a result of aerial night patrols.
- Pre-Storm video assessment via FLIR documenting the status of entire ICW prior to Hurricane Matthew.
- Post-Storm ISR and video assessment of Beaufort and Jasper Counties hours after the arrival of Hurricane Matthew.
- Assessment flight of Nichols with Flood Mitigation section to ascertain water levels and redeployment of supplies, equipment, and manpower.
- Wading bird flights determined the status of approximately 80 wading bird rookeries including 9 species of wading birds. At least 4 of the rookeries found during the transect flights were not previously documented in the SCDNR database and some of the other rookeries had not been surveyed in several years. Photographs taken during these flights replaced the potentially disruptive ground counts and will be used to determine the number of pelicans nesting in the state this year.
- Completed Shallow Water Egress Training (SWET) resulting in a higher safety margin for pilots and airborne observers.

## Supply/Equipment

- Implemented a process in which regions place small orders 1x a month- to cut down on PO's and save operational dollars by buying in bulk rather than individually.
- Completed Glock firearm issuance and return.
- Issued new weapon lights and holsters.
- Completed Ballistic vest swap and issued new vests to officers.
- Successfully completed Supply Audit.

## Communications Center

- Total Calls for Service: 14,661
- Top 3 calls: Injured Animals:1591, Nuisance Wildlife: 1,131, Trespass to hunt/fish: 1,429
- Processed 2034 Palmetto Pride Calls ( Litter busters)
- Registered 861 Night Hunting Properties Permits
- Entered 245 Warrants into NCIC
- Removed 285 warrants from NCIC

## Radio Communications

- Maintained daily operations and maintenance and Programs for consoles, twenty-one (21) repeaters, forty-six (46) control stations at eight (8) Master Sites, microwaves, DSL's, Towers and sites, almost 3000 Mobiles, Portables and Boat radios. In addition, maintained generators at the majority of the sites and maintained other division radios.
- Installed mobile radios on site for the new LE vehicles.
- The Long Mountain Tower facility in conjunction with the Department of Administration, replaced a building with all antennas and coaxes at no cost to SCDNR. This process involved months of planning and work to complete.
- Maintained repeaters and generators during the Ice Storm and Hurricane Matthew as electrical power failures occurred in several locations.
- Utilized the communications on wheels (COW) in Nicholas SC for approximately 3 weeks during flood event.

## Operation Game Thief, Legislation, Grants, Records & Technology – Captain Lee Ellis

### Operation Game Thief

- The SCDNR Tips program has opened additional avenues for the public to report anonymously violations through the DNR website, DNR Facebook page, SMS texting, and through downloadable apps for smart phones on the iPhone and Android applications.
- Worked with administrators of the Pocket Ranger App to include a link from their App to the SCDNR Tips web based tip reporting through the SCDNR Website.

### Confiscations/Restitution

- Automated the sale of confiscated equipment through fillable auction request forms which were added to the intranet for use by the regions.
- Established a monthly accounting system for managing funds for accounts individually for Operation Game Thief, Confiscations, Marine Theft Auctions, Buy Money, and Restitution in conjunction with the LE Business Manager.
- Improved financial reporting for the Property Watch program.
- Added a shared folder with all Regions and the Radio Room where Property Watch scanned documents can be located 24 hours a day.

### Records & Technology

- Supervised implementation of the new training file system to ensure all training files are accurate and complete both in house files and electronic files.
- Completed implementation of internal procedures for revocation of privileges due to unpaid child support to become compliant with state and federal requirements.
- Revised 7 and implemented 4 new records retentions schedules.

### Training Staff Accomplishments - Lt. Russell Monnet

- Developed website for Non-Departmental DLEO's for legal updates and DV.
- Conducted Active Shooter Training for all field officers and field supervisors.
- Conducted training file audit and updates.
- Conducted Officer Water Survival Course for Region 1 and 3.
- Conducted Shotgun and Boat Operator courses for local Law Enforcement.
- Conducted Rifle Training for officers issued long guns.
- Conducted 40 Hour Officer Survival School in Clinton, SC.
- SSGT. McClellan completed Sig Sauer Master Instructor School.
- L/Cpl. Martin and SSGT. Spires were certified in NASBLA Seated Battery Instructor.
- 3 officers completed certification as AAA Driver Improvement Instructor.
- 2 instructors received certification for Gracie Survival Tactics for Level 1 Instructor.
- Sent 40 officers to Crowd Control Training to assist DPS for State House protests.
- Attended Active Shooter and School Resource Issues seminars.

- Purchased airsoft and simunitions weapons for training. (DNR airsoft weapons were used during Active Shooter training with DPS for realism)
- Procured \$184,000.00 of 1033 equipment for training and Regions only cost to the agency was \$88.00 for shipping.
  - 1 Diesel Generator
  - 1 Medical Kit, MES
  - 20 Frame , Rucksack, Shoulder Straps, Waist Belts
  - 10 Reflex Sight (Aimpoint)
  - 9 Thermal Sight ( PAS 13)
  - 75 pairs of ESS Goggles used for airsoft and active shooter training.
  - 15 Individual Combat Shelters
  - 20 Combat Gauze Packs

## Law Enforcement Business/Finance Section – Jessica Clements

- Officers and non-sworn staff have continued to participate in Excel, Access, Word; and specific duty related training opportunities throughout the year.
- Established meetings and weekly updates in regards to newly received and expected grants to allow for a spending plan for purchases and accurate planning of major expenditures, reporting criteria and deadlines.
- Created Business Objects reports to display Functional area spending/budgetary for Hunter Education Section grants, Boating Safety grants and JEA grant.
- Continued working on the FEMA and state funding issues related to the 2015 Flood Event;
- Continue towards certification as a Government Finance Officers for the state of South Carolina.
- Handled Hotel and Travel documents for Hurricane Matthew Event.

## Legal Staff – Shannon Bobertz & Craig Jones

- Handled approximately 60 cases overall.
  - Approximately 40 formally through legal office
  - Approximately 20 directly with the charging officer
  - Attended motion hearings or pre-trials at Officers request.
- Covert Team Assist
  - Sumter hawk trapping case
  - Waddell internal investigation.
  - Misc. Facebook initiated investigations.
  - Illegal possession of antelope in Cherokee County.
  - Went with investigators to assess possible Dillon high fence concern.
  - Hiked into Jocassee Gorge with AG office to get pictures relevant to bear case.
- Investigations Assist
  - Assist in felony BUI investigations (Bracewell, Averitt, Sav River boat accident).
  - IA investigation consultation.
  - Assisted and advised in Officer involved accidents\incidents (G. Brown, Bowen accident).

- Training
  - Attended preservation of evidence seminar for Law Enforcement Officers
  - Assisted in intensive BUI training specifically for DNR officers. Legal office brought in DUI prosecutors as guest instructors from Lexington and Richland county Asst Solicitors offices and a DUI defense attorney. I also presented on search warrants at this seminar.
  - Presented on search warrant issues as a guest instructor for a DUI prosecution seminar open to all state law enforcement agencies.
  - Presented on body camera issues at SEAFWA conference in Baton Rouge.
  - Performed region wide training at agency region meetings on search warrant use
  - Revised online search warrant template to comply with court administration requirements
  - Created a self-explanatory user friendly search warrant overview document allowing officers to quickly produce search warrants and minimize confusion
  - Created a "Social Media" and Facebook quick reference document allowing officers to preserve and obtain search warrants for social media evidence quickly and easily.
  - Attended body camera workshops and assisted in development of body camera policy.
  - Collaborated on review and update of use of force policy.
  - Created a user friendly written trespass notice form that can be served by officers
- LE Related Activity
  - Handle numerous calls, texts and emails 24/7 to insure timely answers for the officers as incidents are occurring.
  - Created (and constantly creating and updating) quick reference overview sheets on most common issues so that I can quickly answer questions while the officer is in the field and aid with charging and preserving evidence.
  - Researched and provided authority to Capt. Swink regarding Officers authority to enter private property without a search warrant.
  - Assisted Dorchester Officers in communicating with US Atty Office and other local agencies on a night hunting case that led into a felon in possession of firearm, and felony theft and burglary charges by surrounded Sheriff's Offices.
  - Assisted DHEC with companion shellfish violation cases.
  - Provided written response to homeowner association assertion that Officers parking marked vehicles were a violation of HOA covenants and restrictions. Forced HOA to revise their position.
  - Assisting with Beaufort Marine Debris removal situation.
  - Worked with Orangeburg Officers (P. Nettles and E. Lee) as DLEO during October flooding doing welfare checks.
  - Worked with Officers assigned to patrol and support at Edisto for Hurricane Matthew assignment.
  - Attended meeting with Maj. Landrum to address defendant's attorneys concerns regarding Sumter Hawk case.
  - Assisted in providing requested affidavit in Orangeburg hawk trapping case.
  - Advised on agency interest in putting employee's wife on "no trespassing" notice with regard to domestic issue initiated by non-employee spouse.
  - Attended Captains meetings
  - Advised and consulted on legislation
  - Meet or communicated with various Solicitors Offices or US Attorney Office representatives to advocate or communicate SCDNR position or desire on particular cases.

- Prepared for General Sessions trial prosecuting a night hunting case at the request of the Solicitor that resulted in a guilty plea with full fine, suspension and forfeiture of vehicle prior to commencement of trial. Currently handling 2<sup>nd</sup> similar case at request of Georgetown Solicitor's Office.
- Offered service to prosecute or liaison with any Solicitors office to try to prevent charge reduction or dismissal of SCDNR General Session cases.
- Attended or advised officers engaged in depositions or meetings with attorneys or their investigators related to civil aspects of cases.
- Non-LE Related Activity
  - Covered Board Meetings as needed.
  - Attended Van's Camp Deposition as needed.
  - Attended International Drive bear tunnel deposition.
  - Participated in Chapter 7 re-write meetings.
  - Attended and participated in new shell fish handling revisions.
  - Advised on FOIA request.
  - Participated in Continuing Legal Education seminars.
  - Advised or provided opinions to MRD on various issues or concerns. (Residency compliance for commercial licenses or permits, marine shell uses, legal interpretations and applications).
  - Attended HR legal compliance training.





# Marine Resources Division

## Research

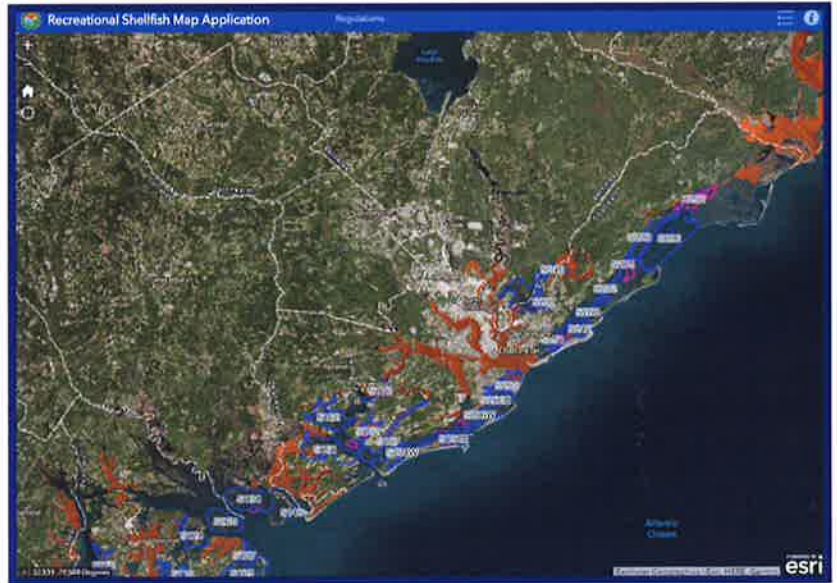
- MRRRI staff were awarded 6.4 million dollars in competitive research grants and contracts.
- Researchers partnered with >100 scientists from local, state, federal and academic institutions from around the country to help better understand South Carolina's living marine resources and habitats.
- Staff produced 100 technical reports, published 25 scientific research papers, gave 250 oral presentations of ongoing research and held 4 workshops.
- The ecosystem research group completed its 17th year of sampling estuarine habitats, with 60 trawls covering 22 miles of coastline, collecting 1,765 specimens of 36 species, and providing information to characterize the health of SC's estuarine habitats coast-wide.
- The algal research team spent 102 field days responding to the public regarding fish kills and algal blooms, collecting 18,441 samples.
- The inshore fish research team made 994 trammel net sets, 311 electrofish sets, 63 trawls and 356 longline sets, tagged 1,993 fish and processed 10,938 fish in the laboratory.
- The population genetics team processed over 10,000 tissue samples of 13 species that provided information to understand the stock structures and genetic health of fish resources in SC.
- The crustacean research and monitoring section continued its trawl survey, with 128 gear deployments at 26 stations. These surveys involved 102 staff days and collected 1760 samples to determine health of shrimp and crab populations that inform opening and closing of shrimp season. Staff also collected information on juvenile shrimp, blue crabs and horseshoe crabs at 62 stations statewide, involving 115 staff days, 160 gear deployments and the collection of 1160 samples.
- The shellfish research section implemented winter sampling efforts at more than 30 stations statewide to determine natural oyster mortality rates.
- The coastal finfish research team made 2,864 gear deployments with trawls, chevron traps, and longlines between Cape Hatteras and Cape Canaveral and caught 1,011,785 fish, crustaceans and sea turtles of over 350 species.
- Staff processed 35,000 otoliths for age and 20,000 reproductive samples to determine spawning condition, adding ~3.4 million data records.
- Staff made 220,000 detections of tagged fish and turtles throughout the South Atlantic Bight. Staff used these data in 7 regional fisheries stock assessments to provide guidance to managers on how to manage recreationally and commercially important species, rebuild turtle populations, guide opening and closing of harvest seasons and enhance understanding of marine resources.



## Fisheries Management

- Staff provided data and participated in four regional stock assessments for South Atlantic shrimp, red snapper, triggerfish, and blueline tilefish.
- Partners and staff recycled more than 27,000 bushels (~700 tons) of oyster shell.
- State and Public Shellfish Grounds received 29,663 bushels of oyster shells, creating 2.28 acres of shellfish habitat along approximately 1.6 miles of shoreline.

- 5,210 volunteers logged 9,410 volunteer hours building oyster reefs, sampling fish, monitoring water quality and growing/planting marsh grass.
- The commercial licensing office achieved a 99.95% accuracy rate for licensing data.
- The fisheries statistics section tracked 1,324 licenses and permits for monthly reporting and collected 22,995 trip reports from commercial and recreational SC fisheries.
- Online reporting was successfully implemented for charter logbooks.
- Staff completed a cooperative agreement with the US Army Corps of Engineers to develop recommendations for an SC Shellfish Mariculture Plan.
- Staff launched a recreational harvest map web application.
- Staff conducted 4,843 interviews of recreational anglers through the Marine Recreational Information Program.
- SCDNR charter logbooks were evaluated for possible use in generating catch and effort estimates in the for-hire fishery.
- Staff submitted documentation to exempt charter and recreational fishing license holders from a federal fishing license requirement, potentially saving SC anglers \$9,000,000 in federal license fees.
- The SC Governor's Cup Billfishing Series received \$79,700 in new donations. This is the most donated in the 29-year history of the program.
- The Memorial Reef Fund provided tax receipts to donors and notification to bereaved families.
- Research demonstrated the effectiveness of the Charleston Deep Reef site for attracting imperiled species of deep water grouper as well as pelagic species.
- Thirteen artificial reef sites grew through the addition of 120,000 cubic feet of habitat.
- Two new reef habitat structures that can be built and deployed with in-house assets were created, allowing for wider distribution of reef material along the coast.
- Staff learned to operate a new side-scan sonar system, which will greatly enhance the artificial reef program's surveying and mapping abilities.
- DNR awarded a Shore-Based Angler Access Grant to the SC Dept. of Parks, Recreation, and Tourism for repair and improvements to the access road at Oyster Landing. This important beach area is used for saltwater fishing, crabbing and shrimp casting within Huntington Beach State Park in the northeastern part of Georgetown County.
- Staff conducted sampling with commercial shrimpers to assess reproductive condition of white shrimp. Biologists continued sampling commercial shrimp landings to determine counts, species composition, and stages of reproduction for the remainder of the shrimping season.
- Staff visited shrimp houses 128 times and sampled 644 pounds of shrimp to estimate species composition in the SC commercial shrimp fishery.



## Outreach

- Boating Infrastructure Grant Program (BIG) staff completed four projects, totaling \$ 114,093 in federal funding while managing 15 active projects totaling \$ 7,292,573 in federal funding. Staff worked with industry partners to develop and submit ten new proposals totaling \$ 4,533,859 in Federal funding for FY17.



- DNR's Marine Resources Division was featured in over 250 digital, print, and broadcast media stories.
- South Carolina Coastal Resources, a blog dedicated to showcasing coastal and marine-related SCDNR stories, was launched in October.
- Five youth saltwater fishing events were held including pier tournaments and family fishing clinics.
- 583 recreational anglers tagged and released 4,088 saltwater gamefish and reported the recovery of 700 tagged fish.
- Approximately 223,000 copies of printed material were distributed to 114 vendors located throughout the coastal counties of South Carolina.
- 522 Camping permits were issued for Capers Island, accommodating 3,450 campers.
- Fenwick Island was acquired and transitioned to public use.
- A DNR volunteer workforce provided 7693 hours of service at Botany Bay Plantation NERR.
- 6,167 students and teachers from 16 counties across South Carolina participated in education programs aboard the Education Vessel Discovery and in land-based marine education programs. 85 teachers participated in workshops receiving education on coastal waters, current research, and lesson plans to support work in their classroom.
- 333 coastal decision-makers received training and tools to promote stewardship of our coastal resources.
- Over 1600 volunteers gave over 17,000 hours and drove over 92,000 miles in support of DNR's sea turtle program.
- Staff managed the 136,000-acre ACE Basin NERR (National Estuarine Research Reserve) including a dozen properties located in the lower St. Helena Sound.
- Staff worked with volunteers to monitor and protect over 6,400 nests reported on South Carolina beaches. This year marks the highest number of nests on record since standardized surveying began in 1982. Roughly 1,300 volunteers were trained and permitted to locate, protect and monitor turtle nests along the coastline.

## Operations

- Staff monitored, maintained, repaired, and facilitated certification of fundamental equipment and systems.
- The automotive shop ensured proper and safe operation of 73 fleet vehicles and provided driver safety training.
- The safety officer inspected equipment and trained staff. Quarterly fire drills were conducted in all DNR buildings at Fort Johnson.
- Staff worked with campus partners to prepare the Fort Johnson Complex for landfall of Hurricane Matthew. After the storm, the section led assessment of damage and coordinated repairs to DNR assets.
- Charleston IT staff supported the technical needs of over 200 scientific and administrative users, over 250 computers, 54 printers and copiers, 7 servers, networking, 18 security cameras, 16 WiFi access points, and the A/V projection systems in 7 meeting rooms at DNR's Charleston, Bennetts Point, Waddell, and other coastal facilities.
- Staff improved security at Fort Johnson by upgrading the security server and camera security monitoring capabilities to include 18 cameras at DNR's facilities in Charleston.
- The DNR Charleston office network circuit was upgraded from 20 Mbps to 50 Mbps improving the productivity of all DNR staff at Ft. Johnson.
- The IT section provided in-house training for 78 DNR staff on relational database and Geographic Information System software.
- Wifi coverage at DNR's coastal facilities was extended to provide coverage for 16 buildings.
- Video conferencing capabilities were improved by securing access to "GoToMeeting" web conferencing service that provides full-featured modern web conferencing services to DNR staff in Charleston.
- The GIS office continued to operate as a cost-center providing support to a wide variety of projects.
- Having exceeded its intended service life, the Research Vessel Palmetto was refurbished. Enhancements included new engines, a generator and improvements to the gallery and crew's quarters. Structural issues were addressed.



# Office of Support Services

## Boat Tilting, Registration & Licensing

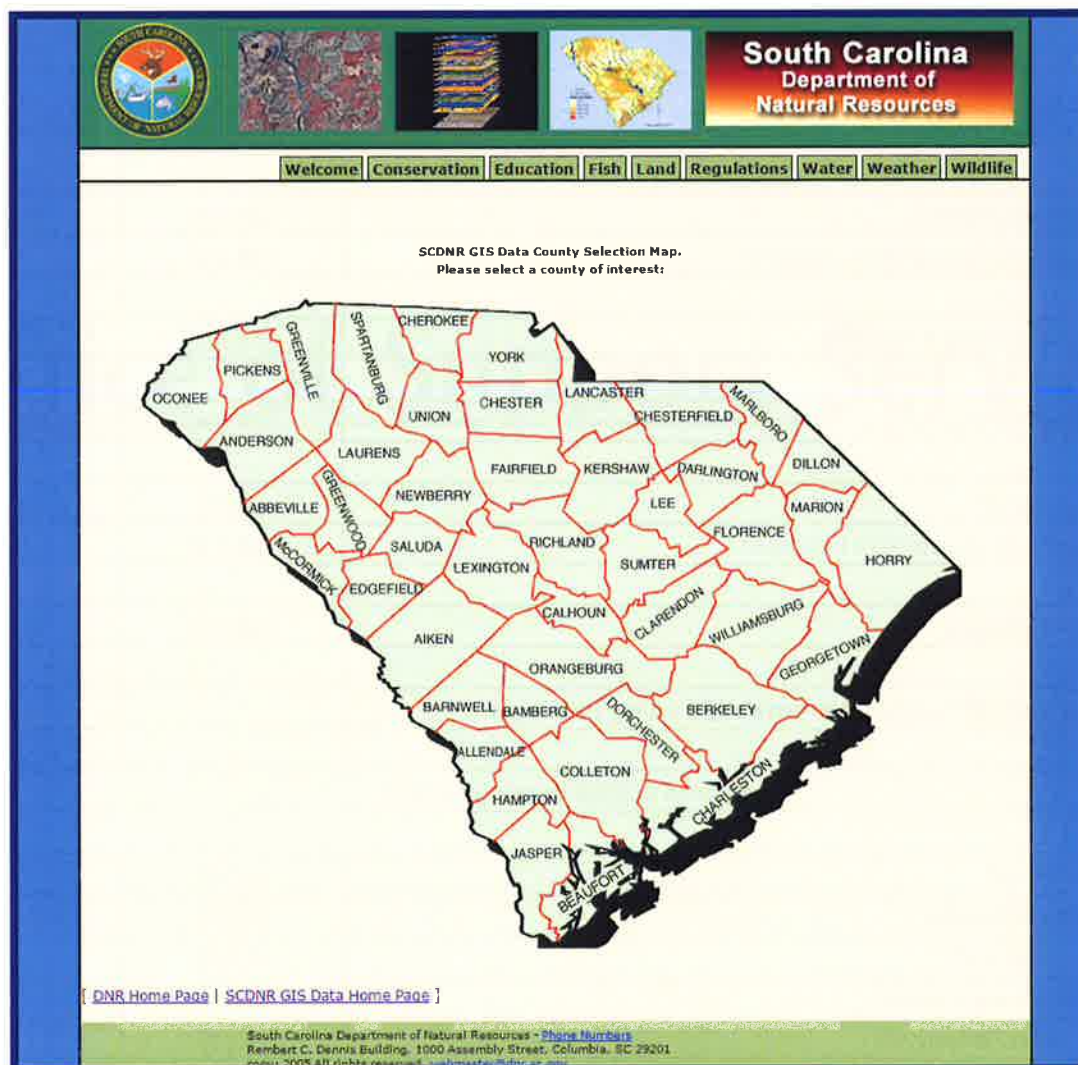


- Issue over 1 million Recreational, commercial and management licenses, permits and tags to individuals and businesses for hunting, fishing and Wildlife Management activities.
- Oversees, regulates and registers over 375,000 watercraft & motors. Consistently ranks in the top 10 states and territories for boat registration.
- January 29th, 2016 SCDNR opened the States Farmer's Market Express license office.
- Marketing has pushed online and call center license revenue sales to 41% of all sales statewide.

FY 2016 SCDNR License Sales		
Major License Sales Categories by Type	Resident	Non-Resident
Freshwater Fishing Licenses	227,155	71,792
State Combination & Sportsmen's Licenses*	136,292	NA
<b>Total Freshwater Fishing Privileges</b>	<b>363,447</b>	<b>71,792</b>
Saltwater Fishing	128,529	88,192
State Hunting Licenses	21,995	27,003
State Combination & Sportsmen's Licenses*	136,292	N/A
<b>Total Hunting Privileges</b>	<b>158,287</b>	<b>27,003</b>
<b>* Licenses contain both hunting &amp; Freshwater Fishing Privileges</b>		
FY 2016 SCDNR Boating Activity		
New Title - Watercraft	13,768	
New Title - Outboard Motor	10,885	
Transfer Title - Watercraft	24,607	
Transfer Title - Outboard Motor	18,140	
Renew Registration - Watercraft	75,418	

## Information and Technology (IT)

- Developed a GIS interface for the public to view all DNR managed lands and boating access areas. This application allows users the ability to find DNR locations of interest utilizing google map technology for directions, while also providing location descriptions and relevant information such as rules & regulations, open and closing times and license information.
- The implementation of the GovDelivery communication solution. GovDelivery gives the agency the ability to effectively communicate with our customers and the general public in one of the most timely, efficient and desired manners available. This tool complies with all state & federal privacy requirements, while allowing the user to receive desired information from the department based on categories and topic. Future tools that will be implemented include license and registration reminders.
- The process of redesigning the agency's website to be responsive for all devices was initiated.
- Maintained a website that received in excess of 14,200,000 successful request for web pages.





# Wildlife and Freshwater Fisheries Division

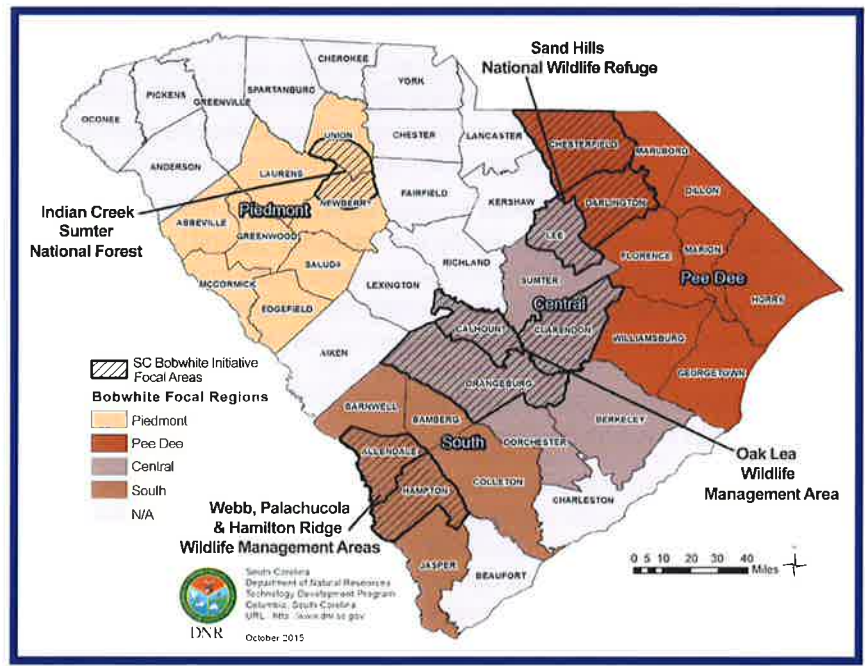
## Wildlife

- Celebrated the 75th anniversary of the WMA program with a special ceremony at Webb WMA and field days at Webb WMA and Wateree River HP WMA. Field days were attended by over 500 members of the public.
- Completed Liberty Hill Phase II (1,829 acres) purchase from The Conservation Fund. Established and dedicated the Austin Sheheen, Sr. Natural Resource Area at Liberty Hill.
- Prepared and maintained 44 Public Dove Fields, encompassing over 1,672 acres throughout 27 counties. These fields provided opportunity for over 3,500 adult hunters and over 250 youth hunters on opening day of dove season.
- Management and maintenance activities on WMAs and Heritage Preserves include planting of 3,202 acres of annuals, planting of 42 acres of perennials, mowing or disking of over 13,043 acres, prescribed burning of 22,546 acres, maintenance of 337 miles of firebreaks, mowing of 473 miles of dikes, re-topping of 3,114 linear feet of dikes, mowing of 828 miles of roads, grading of 667 miles of roads, re-topping of 51 miles of road with gravel, maintenance of 387 miles of trails, and maintenance of 250 miles of WMA boundary with posting of 2,794 signs.
- Replaced the pontoon undercarriage on the amphibious trackhoe and purchased two small excavators for dike and bulkhead work on coastal waterfowl projects.
- Staff handled 3,640 nuisance wildlife complaints including 963 alligator calls, 390 bear calls and delivered 221 programs to a combined audience of over 8,800 people.
- Special hunt opportunities provided on WMAs included 14 Special Youth Dove Hunts accommodating 266 youth hunters, 58 Special Youth Deer Hunts accommodating 360 youth hunters, and 9 mobility impaired hunts accommodating 205 hunters.
- Botany Bay Plantation WMA/HP accommodated 66,950 visitors and 21,212 vehicles.
- Successfully implemented the hurricane preparedness plan for Hurricane Matthew and only incurred minor damage to equipment and facilities during the storm; however, damage to infrastructure was significant with cost to repair estimated at over \$3 million dollars. Most damage was limited to impoundment dikes with significant timber loss on Webb and Palachucola WMAs. Staff responded quickly and efficiently to damage from Hurricane Matthew, minimizing and mitigating additional damage where possible, protecting human safety, and clearing WMAs so they could be reopened as soon as possible following the storm.
- Responded to the Pinnacle Mountain wildfire with DNR staff assisting SCFC with firefighting and coordination for several weeks. Over 10,500 acres burned with over 1,600 acres of DNR lands impacted.
- Three new wildlife biologists were hired in 2016 - a bat biologist working on White-nose Syndrome and population monitoring, a research biologist on Yawkey Wildlife Center and a waterfowl biologist on Samworth WMA.
- Conducted significant bat survey and monitoring work in response to White Nose Syndrome and population declines. This included capture and banding work, acoustic surveys, cave and mine surveys and disease surveillance.
- Conducted a Golden Eagle Camera Survey project, documenting 3 Golden Eagles in the state.
- Captured 96 wild turkeys and deployed over 50 satellite transmitters for the year as part of ongoing research efforts on wild turkey breeding ecology, habitat use, and movement behavior.



- Deployed 15 automated recording units (ARUs) to record gobbling activity and chronology from March 1 – June 1 as part of ongoing turkey research related to gobbling chronology and season timing.
- Developed a new partnership with Riverbanks Zoo to allow for the rearing of hatchling gopher tortoises collected at Aiken Gopher Tortoise Heritage Preserve in their facilities. Began the first year of a telemetry study aimed at gauging survivorship rates among hatchling and head-start gopher tortoises at AGTHP.
- Staff made two trips to Florida for waif tortoise pick-up, constructed two new “tortoise pens” at AGTHP and released approximately 75 hatchling, juvenile, and adult gopher tortoises on-site.
- Completed NAWCA Projects on Bonneau Ferry WMA and Broad River Waterfowl Area that resulted in significant enhancements to wetlands habitat quality and improvement of public hunting opportunity. Began a NAWCA project on Webb WMA, completed planning for a project on Bear Island WMA, and received approval for a project at Santee Delta WMA.
- Administered a bird banding program which resulted in banding of 259 wood ducks, 39 mottled ducks, and over 2000 mourning doves in support of state and region-specific research objectives and Atlantic Flyway banding goals.
- Continued participation in a multi-state Black-bellied whistling duck color banding project in which 254 ducks were banded in 2016. Ten birds were fitted with satellite transmitters. A total of 504 birds have been banded in SC.
- Completed a 55 acre longleaf pine timber thinning on Cat Island of the Yawkey Center with the new swing bridge. This is the first timber harvest there in decades.
- Control efforts and hog hunts on WMAs resulted in the removal of over 577 hogs.
- Began implementation of a coyote tagging and reward program to comply with a DNR legislative budget proviso.
- Completed the final year of alligator field surveys for a multi-year cooperative research project with Clemson University looking at alligator movements and population estimates.
- Conducted the first Gopher Tortoise population surveys utilizing Line Transect Distance Sampling to estimate population sizes at locations in both public and private ownership. Completed 5 pilot surveys and 3 full surveys, and identified 2 populations that meet Minimum Viable Population (MVP) criteria and one Primary Support Population.
- Collaborated with a solar development company to secure permanent protection via deed restriction for the Primary Support Population identified during survey efforts. This is the first population under private ownership in SC to be afforded such protection.
- Initiated a survivorship and movement study of hatchling and head started Gopher Tortoises at Aiken GTHP.

- Developed an acoustic recognizer for gopher frogs based on field recordings collected in 2014 and 2015, and surveyed all extant historic locations for gopher frogs contained in the Heritage Database in collaboration with Marshall University staff in an effort to better understand the current distribution of gopher frogs and examine extirpation in SC. We identified Gopher Frogs at 4 locations in 2016.
- Completed a comprehensive survey for Pine Barrens Treefrogs in South Carolina on public and private lands, re-surveyed locations identified by Cely and Sorrow in the 1980's, and identified additional areas of occupancy.



- Developed and initiated monitoring efforts on all four quail focal areas. A protocol was developed to monitor whistling bobwhites and other non-game birds during the spring, fall covey counts, and a modified habitat survey on the three tier one focal areas in the state. On the one tier two focal area, the National Bobwhite Conservation Initiative protocol was implemented.
- Developed and implemented an entirely new distance sampling protocol to assist with the monitoring of mourning doves throughout the state. This survey will assist the SC Department of Natural Resources manage the mourning dove population more effectively as it will provide a pre-hunting season population estimate each year.
- Worked with partners to fund, construct and distribute 1,100 wood duck box units.
- Collaborated with Clemson University (Kennedy Center) to design, fund and initiate waterfowl and waterbird transect surveys.
- Combined early and late migratory bird season setting process that occurred much earlier in the year and integrated migratory bird harvest information into the SCDNR Rules and Regulations.
- Collaborated with partners to initiate a study of black-bellied whistling duck nesting ecology and participated in a satellite tracking study of instrumented individuals.
- Worked with agency staff, constituency groups, and members of the General Assembly to pass Senate Bill 454 commonly called the deer management bill and began working on planning for the implementation of such.
- As requested by the legislature, completed a national survey of fish and game agencies related to methods of electronic harvest reporting and tagging for big game.
- Population estimates for seabirds were conducted by counting nests or adults at all major seabird colonies on the coast of South Carolina using aerial images. Techniques to improve accuracy of seabird nest counts and decrease disturbance to colonies were perfected. *Image J*. processing software was used to tally brown pelican, royal and sandwich tern nests. In 2016 South Carolina had 4268 brown pelican, 11,235 royal tern, and 3448 sandwich tern nests.
- Coordinated with private, federal, state, and county owned beach managers to close part of the beach for nesting seabirds and shorebirds at 30 sites. This involved 2-10 site visits at each property depending on the partnership with the land manager. Additionally, educational signs were placed at boat ramps and on some beach entrances. In 2016, 18 sites were targeted for partnering with land managers in protecting beach nesting birds. Partners (N = 93), were involved in on the ground site management. At most sites partners were staff or volunteers from the site's management organization that took a greater role in conservation in 2016 than in previous years.
- Least terns, a state threatened species, have adapted to nest on pebbled manmade structures. Pier Romeo is a long concrete pier located next to the NOAA Office for Coastal Management at the old Charleston Navy Base and no longer used for docking ships. Pea gravel was spread at the end of the pier. All openings that could be hazardous to mobile chicks were covered with hardware cloth and wooden pallets were placed to provide shade. To attract least terns, a Murremaid Sound System was employed to play the calls of a least tern colony and least tern decoys were placed in the gravel. This work was accomplished with 30 volunteers from NOAA and USFWS Ecological Services under the supervision of the SCDNR Coastal Birds Project staff. A small colony of least terns nested on this site the first year of this project, thus the project will expand in 2017.
- Completed a two year project to assess the distribution of the black rail, a very small and secretive marsh bird, in the coastal region of South Carolina. Conducted surveys at over 500 points and succeeded in finding black rails on several properties, including in impounded marshes that are managed by SCDNR to provide winter habitat for waterfowl. Presented results from this project during the Black Rail Symposium at the international Waterbird Society conference. Coastal South Carolina has emerged as an important portion of the range for the eastern subspecies, which is currently undergoing a federal status assessment.







- Documented record high numbers of wood storks nesting in South Carolina. During annual surveys, 2,512 wood stork nests were counted. Monitored nesting success at a subset of colonies. Worked with private landowners and public land managers to improve quality of nesting habitat. With abundant and diverse wetlands that provide relatively reliable food sources during the breeding season and post-breeding season, South Carolina is playing a key role in the recovery of the species.
- Conducted MAPS (Monitoring Avian Productivity and Survivorship) on Webb Center in Hampton County and in Richland County. The effort on Webb was year 10 of 10.
- Collaborated with Clemson University in an investigation of loggerhead shrikes to determine distribution, habitat preference and population trends.
- Translocated 8 pairs (16 birds) of red-cockaded woodpeckers (RCWs) to Donnelley WMA in Colleton County. This was the first reintroduction to an area with no birds on SCDNR property. Three pairs came from the Poinsett Bombing Range in Sumter County and 5 pairs came from Sandhills NWR in Chesterfield County. This was a significant collaborative effort by SCDNR, the USFWS and other personnel.
- Continued to manage the Safe Harbor Program for RCWs. There are now 175 properties enrolled and South Carolina continues to have more RCWs on private property than any other state within the range of the species.
- Completed 96-acre addition at Jocassee known as Galloway Tract in Pickens County. Completed 91-acre addition at Bear Island in Colleton County.
- Completed 589-acre addition at Pitts WMA known as Adair Tract in Laurens County.
- Assisted Law Enforcement with 131-acre acquisition of Indigo Club in Richland County.
- Assisted Law Enforcement with 2-acre acquisition of LE Office in Kershaw County.
- Investigated approximately 25 potential land acquisitions. Five projects are ongoing and will be completed in 2017.
- A Forest Legacy grant in the amount of \$1,005,000 was obtained for an addition to Chestnut Ridge.
- A National Coastal Wetlands Conservation grant in the amount of \$1,000,000 was obtained for South Fenwick Island.
- A NCWC grant in the amount of \$850,669 was reprogrammed for South Fenwick.
- SWG funds in the amount of \$623,000 were obtained to fund 8 research projects.

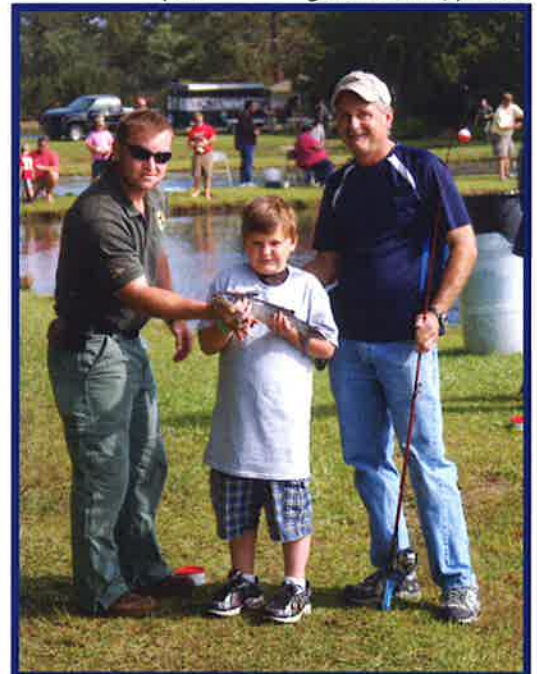
## Freshwater Fisheries

- The Freshwater Fisheries hatchery system produced and stocked 11,503,948 fish weighing 131,861 pounds into public waters.
- The hatchery system produced 14 species for stocking into public waters.
- Fish were stocked into 136 water bodies at 190 locations involving 1,444 stocking events.
- Regional operations provided 375 pond management consultations by phone.
- Regional staff reviewed and provided technical comments on 33 environmental permits.
- Regional staff conducted population surveys and inventories were conducted on 23 lakes and reservoirs and 20 rivers and streams.
- Regional staff maintained 124 fish concentration areas in public waters.



- Section staff responded to 28 reported fish kills.
- Twenty-five schools participated in the trout in the classroom program support with partnership from Trout Unlimited.
- Support was provided to youth bass clubs in 47 schools involving approximately 577 students.
- Staff supported the operation of 20 kids fishing rodeos in cooperation with the Law Enforcement Division which were attended by 2,901 participants.
- With the cooperation of DNR certified volunteer fishing instructors, 31 family fishing clinics were provided to 631 participants.

- Fishing tackle loaner sites were maintained at 30 locations across the state providing equipment for 696 users involving 1,241 rod loans.
- The Freshwater Fisheries Section held the 4th Annual Youth Bass Fishing Championship on Lake Murray with participation from 42 schools and 148 youth anglers.
- Statutory amends were made to the recreational American eel limits to insure compliance with the coast wide management plans established by the Atlantic States Marine Fisheries Commission for American eel.
- Statutory amendments were completed to the laws dealing with the use of sterile grass carp for vegetation control in South Carolina to clarify the availability of this management options for private ponds.
- Fish habitat enhancement programs were continued in Lakes Hartwell, Moultrie and Marion.
- With the support of the Office of Environmental programs a general permit application was submitted to the U. S. Army Corps of Engineers to allow the DNR to conduct fish habitat enhancement activities in lakes and reservoirs across the state.
- The St. Stephen Dam eel ramp allowed for the passage of 4,556 juvenile American eels during 2016
- The sonic receiver array in place across the coastal rivers of South Carolina (approximately 300 receivers) was maintained and monitor and continues for provide critical information on the migration patterns of Atlantic and shortnose sturgeon.
- The St. Stephen fish lift, though hampered by mechanical failures twice for extended periods during the season, passed 3,285 blueback herring, 41,375 American shad, and 3,785 other species (13 different species).
- A study was initiated to evaluate the total mortality and exploitation of striped bass in the Lower Saluda River.
- A study was initiated to evaluate the fishery enhancement potential of Stevens Creek Reservoir.
- Launched the FIT (Fisheries Intensive Training) Program. This is a freshwater fisheries specific in-service training program for junior staff with in the Section.
- Continued efforts to build relationships with the sport fishing industry and manufacture in South Carolina through attending the ICAST 2016 as an exhibitor, participating in the American Sportfishing Association's 2016 Industry Summit and hosting the second annual DNR-Sport Fishing Industry Summit with South Carolina based companies.





The South Carolina Department of Natural Resources prohibits discrimination on the basis of race, color, national origin, disability, gender, religion or age. Direct all inquiries to the Office of Human Resources, PO Box 167, Columbia, South Carolina, 29202.

Total cost \$155.95  
Total copies 20  
Cost per copy \$7.80



DNR provided to the Oversight Committee  
Printed on recycled paper  
17-11217  
Evaluation Report on 8.30.17