



**ALABAMA DEPARTMENT OF
CONSERVATION AND
NATURAL RESOURCES**
2018-2019 ANNUAL REPORT





**The Honorable Kay Ivey
Governor of Alabama
State Capitol
Montgomery, AL 36130**



Dear Governor Ivey:

I am pleased to submit the Department of Conservation and Natural Resources' Annual Report for the fiscal year ending September 30, 2019.

The Department continues to find new ways to serve the public while adhering to our mission of promoting the wise stewardship and enjoyment of Alabama's natural resources for current and future generations.

In 2019, Gulf State Park was named Attraction of the Year by the Alabama Tourism Department. This distinction was due in part to the grand opening of the park's new lodge, the first at the park since Hurricane Ivan destroyed the previous lodge in 2004. We can now offer a world-class destination within one of the most beautiful state parks along the Gulf Coast.

The Wildlife and Freshwater Fisheries Division's Adult Mentored Hunting Program continued to be a successful tool for recruiting hunters, bringing in 88 new hunters to participate in 13 adult mentored hunting events. Programs like this build on our already-established youth hunting programs with a goal of creating more hunters who will purchase the licenses that provide so much of the Department's revenue.

The 2019 red snapper fishing season was managed under an Exempted Fishing Permit issued by the National Marine Fisheries Service. The season was originally scheduled for 27 days but was expanded to 38 days due to bad weather along the coast. Nearly 1.71 million pounds of red snapper were landed in Alabama, making it a successful season for anglers while providing an economic boost to the state.

Additionally, State Lands Division staff continued providing administrative support to the Gulf of Mexico Energy Security Act program by overseeing the disbursement of funds and providing support to the awarded entities. In January 2019, 15 awards totaling approximately \$27.5 million were made to fund projects such as marine debris and shoreline cleanup, coastal watershed enhancements, and improved boating access.

These are just a few of the accomplishments you will find in this report. Thank you for your support and leadership to our agency and the State of Alabama.

Sincerely,

A handwritten signature in black ink that reads "Christopher M. Blankenship". The signature is fluid and cursive, with the first letters of the first and last names being capitalized and prominent.

Christopher M. Blankenship
Commissioner

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COVER PHOTOS:

FISHERMAN AT FORT MORGAN
PHOTO BY: SAM SUMLIN

TURKEY AND HUNTER
PHOTO BY: GARRET GASTON

JUVENILE ALLIGATOR GULF STATE PARK
PHOTO BY: JENNA A CROVO



DEPARTMENT OVERVIEW



The Department of Conservation and Natural Resources is an executive and administrative Department of the State of Alabama created by statute. The Commissioner, appointed by the Governor as a member of her cabinet, advises the Governor and Legislature on management of freshwater fish, wildlife, marine resources, state lands, state parks, and other natural resources.

Scope of Operations

The Department's scope of operations includes the administration, management and maintenance of 21 state parks, 23 public fishing lakes, three freshwater fish hatcheries, one aquatic biodiversity center, 162 public boat ramps, 30 wildlife management areas, six special opportunity areas, 12 shooting ranges, a saltwater mariculture center, and 645,000 acres of trust lands managed for the benefit of several state agencies, and the state's General Fund and the Alabama Trust Fund. Other departmental functions include maintenance of a State Land Resource Information Center and administration of the Forever Wild Land Trust program.

Organization

During Fiscal Year 2019, the Department had four operational divisions and seven support sections. The operational divisions were Marine Resources, State Lands, State Parks and Wildlife and Freshwater Fisheries. Support sections were Accounting, Engineering, Information and Education, Information Technology, Legal, Personnel and Payroll, Property Inventory, and Deepwater Horizon Oil Spill Restoration. The Commissioner was advised by a 13-member Conservation Advisory Board.

Division directors managed the Department's programs under their jurisdiction through authority delegated by the Legislature and the Commissioner. Concerted efforts were made to balance needs and requirements against resources and available funding to satisfy present and future public and resource requirements. Active public education and voluntary participation programs were expanded, and new plans were implemented to achieve maximum multiple-use benefits consistent with resource conservation.

Department Goals

The Department's major goal is to promote the statewide stewardship and enjoyment of Alabama's natural resources and to ensure that future generations will be able to enjoy these resources.

Funding

Funding for the Department is generated through special revenues, which include federal money, cigarette taxes, user and license fees, mandated interest from endowment and federal regulations. The Forever Wild Land Trust received interest income from the Alabama Trust Fund. Specific revenue sources for the four operational divisions are as follows:

Marine Resources: Saltwater fishing licenses, fines, marine gas tax, and federal grants. Marine Resources also has an endowment, but it has not grown enough to enhance operations.

State Lands: Management fees from the sale of timber, minerals and various leases on state lands administered under the Lands Asset Management Program. Further, the division receives additional federal grants that support specific programs.

State Parks: User-generated funds in the form of entrance, rental, lodging, golf, and other recreational fees. State Parks received a modest amount of funding from cigarette tax revenue.

Wildlife and Freshwater Fisheries: Fishing and hunting licenses and permits; fines; waterfowl stamps; federal allocations from excise taxes on sporting arms, ammunition, archery gear and some fishing tackle; and federal grants. Interest income continues to be generated by the Game and Fish endowment fund for resident lifetime hunting and fishing licenses. Direct donations and voluntary state income tax refund check-offs for the Nongame Wildlife Program continue to decrease from previous fiscal years.

CONSERVATION ADVISORY BOARD

The Conservation Advisory Board, created by statute, is composed of 10 members appointed by the Governor for alternating terms of six years and three ex-officio members in the persons of the Governor, the Commissioner of Agriculture and Industries, and the Director of the Alabama Cooperative Extension System. The Commissioner of Conservation and Natural Resources serves as the ex-officio secretary of the Board.

The Advisory Board assists in formulating policies for the Department of Conservation, examines all rules and regulations and makes recommendations for their change or amendment. By a two-thirds vote of the members present and with the

Governor's approval, the Board can amend, make any changes, repeal or create and promulgate additional rules and regulations. The Board also assists in publicizing the Department's programs and activities.

Meetings

The Advisory Board met two times during FY 2019:

- March 9, 2019, at the State Capitol Auditorium in Montgomery, Alabama.
- May 4, 2019, at the Lodge at Gulf State Park in Gulf Shores, Alabama.

Conservation Advisory Board Members as of Sept. 30, 2018

Members	Home Town	Term Expires
Joseph Dobbs, Jr., Chairman	Birmingham	March 28, 2021
Greg Barksdale	Hanceville	September 30, 2023
Brock Jones	Boligee	March 28, 2021
Patrick Cagle	Montgomery	March 28, 2021
Grady Hartzog	Eufaula	March 28, 2021
Raymond Jones, Jr.	Huntsville	May 9, 2025
Jeff Martin	Pell City	May 9, 2025

Ex-officio Members

Kay Ivey, Governor, State of Alabama
 Gary Lemme, Director, Alabama Cooperative Extension System, Auburn University
 Rick Pate, Commissioner, Alabama Department of Agriculture and Industries

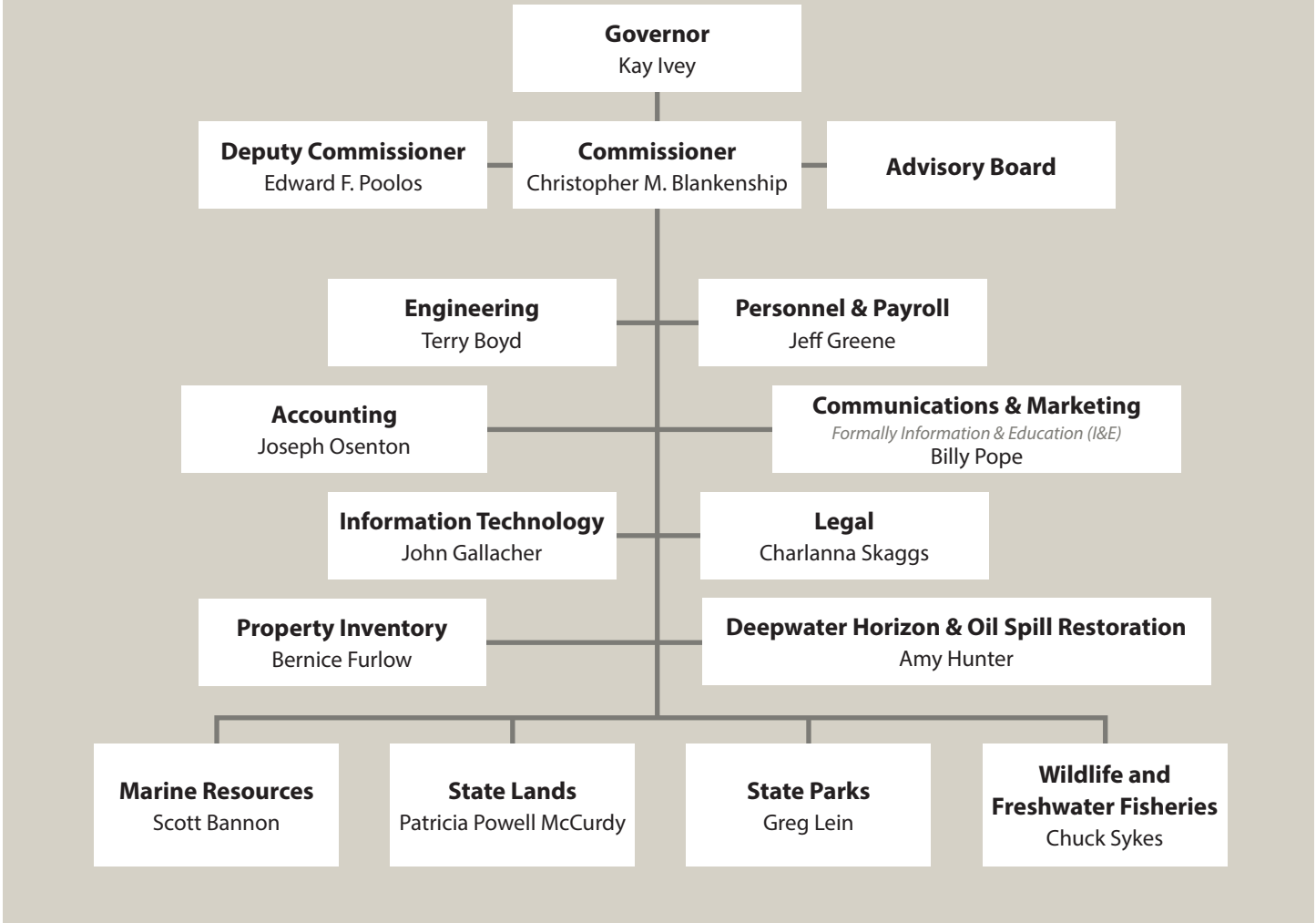
Ex-officio Secretary of the Board

Christopher M. Blankenship, Commissioner, Alabama Department of Conservation and Natural Resources

Department of Conservation and Natural Resources Overview of 2021 Budget Request

	ACTUAL 2019	BUDGETED 2020	REQUESTED 2021
NUMBER OF EMPLOYEES	1,017	1,178	1,187
UNENCUMBERED CASH BALANCE FORWARD	63,356,728	64,093,306	36,347,680
Federal Funds			
0303 Marine Resources - Gulf States Marine Fisheries Commission	516,037	559,000	734,000
0303 Marine Resources - Commerce	658,793	2,725,500	695,998
0303 Marine Resources - Interior	1,262,837	1,183,500	1,198,500
0304 Game & Fish - Interior	15,706,994	21,250,000	21,850,000
0304 Game & Fish - Misc	86,789	385,000	317,000
0305 Lands - Commerce	3,599,849	4,424,825	5,220,000
0305 Lands - Interior		1,000,000	
1713 Restore Act	195,250	132,190,997	138,340,207
Total Federal Funding	22,026,549	163,718,822	168,355,705
National Fish and Wildlife Foundation	2,228,266	11,724,000	6,835,000
Licenses and Permits	21,794,088	20,642,700	23,062,300
Land Management Fees	4,029,723	3,453,855	3,477,923
User Fees	36,862,226	37,864,662	43,934,824
Timber Sales	578,916	905,000	750,000
Fines	638,564	710,000	606,000
Trust Fund Interest (MR and WFF)	787,556	550,000	650,000
Other	3,833,464	8,685,100	8,930,300
Total Departmental Related Receipts	70,752,803	84,535,317	88,246,347
Cigarette Tax	2,360,000	3,000,000	3,000,000
Gasoline Tax	2,909,304	2,450,000	2,940,000
Use Tax Discount Cap	1,398,093	1,048,000	1,400,000
Sales Tax Discount Cap	5,000,000	8,000,000	10,055,000
GOMESA	24,476,087	33,297,132	26,000,000
Forever Wild Land Management	750,000	900,000	900,000
BP Oil Spill/NRDA Reimbursements	12,122,370	18,260,000	19,260,000
Total Other Receipts	49,015,854	66,955,132	63,555,000
Administrative Transfer	7,404,297	8,400,000	10,000,000
Actual All Receipts	149,199,503	323,609,271	330,157,052
BFY 2019-2021 Expenditures or Budgeted	148,462,925	351,354,897	361,854,395
Revenues verses Expenditures -- Over (Under)	736,578	(27,745,626)	(31,697,343)
UNENCUMBERED CASH BALANCE	64,093,306	36,347,680	4,650,337
BFY 2019-2021 Expenditures/Budgeted	148,462,925	351,354,897	361,854,395
BFY 2019-2021 Federal Funding	22,026,549	163,718,822	168,355,705
BFY 2019-2021 State Funding	126,436,376	187,636,075	193,498,690

Department Organizational Chart as of September 30, 2019



FY 2019 Budgets and Expenditures for Administrative Division

Section	Budgeted Amount	Actual Expenditures	Over/(Under)
Accounting	2,153,782	1,899,550	(-254,232)
Commissioner	720,761	641,053	(-79,708)
Engineering	504,905	542,616	37,711
Information & Education	802,034	669,224	(-132,810)
Information Technology	2,362,806	1,945,881	(-416,925)
Legal	979,585	896,111	(-83,474)
License	324,674	233,362	(-91,312)
Payroll & Personnel	1,014,632	1,026,619	(-91,312)
Property Inventory	215,569	207,568	(-8,001)
Contingency	1,558,816		(-1,558,816)
Totals	10,637,564	8,061,984	(-2,575,580)

ADMINISTRATIVE DIVISION

ACCOUNTING

The Accounting Section is the central clearinghouse for all departmental financial data. Accounting maintains and records all receipts and disbursements for the Commissioner's office, the administration sections, and each of the four divisions.

Accounting is responsible for six internal functions: accounts payable, accounts receivable, budgeting, procurement, hunting and fishing license sales, and financial reporting.

Accounts Payable reviews and approves all payment transactions and transfer journal entries for the Department. Over 20,000 transactions are processed on an annual basis.

Accounts Receivable reviews and approves all cash receipts and investment transactions for the Department. Over 12,000 transactions are processed on an annual basis.

The Budgeting office prepares and submits the annual budget. It also processes budget modifications as required during the year. The Department expenses for FY2019 were approximately \$148.5 million.

Procurement provides purchasing assistance to each administrative section and to all divisions. This office is the liaison between ADCNR and State Purchasing.

The Hunting and Fishing License office is responsible for receiving revenues from license sales and certifying them into the Wildlife and Freshwater Fisheries and Marine Resources funds.

Financial Reporting processes Comprehensive Annual Financial Report entries, closing entries, and reports on grants; calculates federal draws; and maintains grant budgets for the Department.

INFORMATION AND EDUCATION

The Information and Education Section (I&E) provided a variety of communications and marketing services for the Department including news releases; publication and graphic design; editorial, proofreading, and copywriting services; web development; video production; photography; email marketing; and a weekly outdoors column sent to the media and published on the Department's website. Section staff also coordinated special projects such as the Outdoor Alabama Photo Contest and responded to information requests from the public, media, and other state and federal agencies. Personnel included six full-time positions.

Accomplishments

- Awarded three international awards from the Association for Conservation Information (ACI), a nonprofit organization of communications professionals representing state and federal wildlife and natural resources agencies in the U.S. and Canada. In FY 2019, the I&E Section received the

following ACI awards: first place in the agency website category for OutdoorAlabama.com, second place in the advertising/display graphic design category for the Outdoor Alabama Photo Exhibit, and third place in the other/general photography category for photos of The Lodge at Gulf State Park, a Hilton Hotel.

- Managed the Department's email marketing and communication platform (GovDelivery) that is used to communicate with 3,866,427 subscribers distributed among 176 interest topics. Distributed communications included e-newsletters, press releases, annual hunting and fishing license expiration reminders, weekly outdoors articles, lapsed hunting and fishing license marketing incentives, and more. In FY 2019, I&E's email marketing and communications efforts sold 11,050 license privileges with a total revenue of \$628,522.33.
- Partnered with the Alabama Bicentennial Commission and the Alabama Tourism Department on the Outdoor Alabama Photo Contest. Coordinated a traveling exhibit of the winning photos in locations across the state, such as state parks, museums, and libraries.
- Developed and edited 98 press releases focused on departmental programs, public events, and hunting and fishing regulations.
- Managed public information requests from local, regional, and national media outlets; nongovernmental and governmental agencies; and the public.
- Managed the Department's official Outdoor Alabama social media platforms including Facebook, Twitter, YouTube, and Instagram. Facebook continued to be the most effective social media platform to connect with our constituents. The Outdoor Alabama Facebook page has seen continued growth in users, engagement, and reach. In FY 2019, the Outdoor Alabama Facebook page grew by 3,894 followers, for a total of 43,744. The average reach per post was 5,900 Facebook users.
- Produced 12 Facebook Live streams for the Wildlife and Freshwater Fisheries Division for a combined total of 108,300 views and an estimated reach of 240,000 Facebook users.
- Oversaw and maintained content for two official Department websites – **OutdoorAlabama.com** and **AlabamaForeverWild.com**. I&E also served as the liaison with the website contractor to provide solutions for various website issues as well as administrative and troubleshooting services for the Department.

OutdoorAlabama.com

Users: 1,853,626 (20.5% increase over the previous year)

New Users: 1,779,717 (17.6% increase over previous year)

Pageviews: 6,854,387 (14.25% increase over previous year)

- Provided creative services support to the Department by designing promotional items, digital and printed marketing materials, species and annual reports, advertisements, maps, calendars, signage, business cards, retirement certificates, and vehicle graphics and wraps.
- Shot photographs and video both on location and in studio in support of Department programs and events. Section staff also maintained video and photo archives for various departmental projects and distribution to news media, outdoor writers, and print and digital publications.
- Created public surveys and produced reports through the Qualtrics survey platform in support of Department staff research.

INFORMATION TECHNOLOGY

The Information Technology (IT) Section provides computer hardware, software, and networking services for the Department.

Hardware services include setup and installation of computers and mobile devices, management of departmental servers, and installation and support for printers, monitors, copiers, and scanners.

Software services include web-based application development and maintenance, analysis, design, and support for the Department's E-Gov applications, support for all mainframe applications, and support and maintenance of Department websites.

Networking services include support for all wired, wireless, and cellular technologies used throughout the Department. IT support is also provided for email and cloud storage platforms through the Microsoft Office 365 Enterprise Agreement.

Facilities and Personnel

The IT staff consists of 15 employees: IT Manager, Programmer Analysts (3), System Specialists (4), System Technicians (2), an Account Clerk, and four contractor-filled positions. There are currently six vacant merit positions in IT.

Accomplishments

- Processed via Game Check information on more than 84,000 deer harvested in the 2018-2019 season
- Managed commercial and recreational licenses
- Implemented system changes to allow new "hard card" privileges and round up option
- Created automated system for updating manual conservation ID changes for the phone application via Conservation Electronic License System (CELS)
- Developed Supplemental Hunts drawing system to fill unallocated slots
- Implemented electronic Federal Duck Stamp application
- Enhanced public hunts registration by further developing an all-encompassing system for the public to register for

hunts for any species with fees (sandhill crane, etc.), and improved online video training interface

- Updated the State Lands Heritage Database to allow multiple file formats for importing species observation data
- Upgraded application used for investigating and validating licenses to include out-of-state blocking of driver's licenses
- Upgraded Deer Clubs application to allow manager to enter deer harvest information
- Enhanced Game Breeders application tracking reports and additional admin features
- Continued deployment of Microsoft Office 365 – adding SharePoint, OneDrive, and Teams integration
- Added new policies for mobile device management to secure smartphones and protect state data
- Continued digitizing and indexing legal document archive
- Converted help desk ticket tracking system to internet-accessible site
- Completed deployment of remote management of all Department computers (700)
- Deployed more than 400 Windows 10 PCs to replace Windows 7 throughout the state
- Implemented required cybersecurity training through Threat Advice
- Migrated servers to RSA datacenter using a new hyperconverged server solution
- Began utilization of Microsoft Azure for disaster recovery and infrastructure as a service
- Managed the conversion and installation of the ADCNR offices within the Folsom building to VOIP system
- Implemented after-hours and weekend on-call schedule to expand Help Desk coverage
- Converted Adobe Acrobat to Creative Cloud for ~175 licenses
- Upgraded seven state parks networks to enterprise grade fiber internet
- Acquired security tools Splunk and Qualys to secure networks and websites

LEGAL SECTION

The Legal Section provides legal counsel and advice to the Commissioner, Deputy Commissioner, Division Directors, law enforcement personnel, and other employees of the Department.

The Legal Section also performs work relating to the acquisition of real estate for the Department, including the procuring of title evidence (title insurance, title opinion, title research), preparing deeds, issuing Attorney General Title Opinions, closing acquisitions, recording deeds, and obtaining the final title policies/opinions, tax assessments, and payment of taxes due.

The Section also handles departmental contracts and legal instruments of all types including, but not limited to, oil and gas leases, real estate leases, personal-service agreements, construction contracts, engineering contracts; easements, lease purchase agreements, state park concession contracts, and other documents as requested.

The Legal Section corresponds with, meets, and advises members of the Governor's Office, the Alabama Legislature, and fellow state attorneys on matters of legal, legislative, or regulatory interest related to the Department.

The Section drafts, reviews, and monitors legislation affecting the Department. It also drafts rules and regulations pursuant to the Alabama Administrative Procedure Act.

Litigation against the Department and its employees, as well as litigation initiated by the Department, is also managed by the Legal Section. This includes cases and appeals filed in state and federal courts, as well as those before state agencies and boards (e.g., the Board of Adjustment and the State Personnel Board). The representation provided by the Legal Section includes all facets of conflict resolution and litigation, preparation of pleadings and briefs, and oral arguments.

PERSONNEL AND PAYROLL

The Personnel and Payroll Section provides personnel-related support services to the Commissioner's office, Division Directors, Section Chiefs, and each employee of the Department. The section serves as liaison to the State Personnel Department for ADCNR's personnel actions and activities.

The section is responsible for processing all payrolls as well as maintaining all employee files and payroll records. The section supports the advancement of ADCNR's employees in various ways, including facilitating training opportunities and assisting with the administration of benefits. Contact the Personnel Office at (334) 242-3501.

ENGINEERING SECTION

The Engineering Section provides professional planning and programming, engineering, architectural, landscape architectural, surveying, cartographic, and related administrative services to the divisions of the Department.

Facilities and Personnel

The Engineering Section had four employees during FY 2018-2019: one Conservation Engineering Services Chief, one part-time Conservation Construction Inspector I, and two retired state employees. The Section's facilities are in Montgomery.

Accomplishments

The Engineering Section administered approximately \$10 million in contracts, both initiated and coordinated in FY 2018-2019. Engineering Section programs consist of providing the necessary professional expertise required to reach Department goals. These programs include capital and improvement, using both out-sources and in-house design and in-house construction, master planning, and site planning for Department facilities. We assist in the areas of construction document preparation, project status, and other reports, feasibility studies, advisement on proper repair and operation manuals, technical field assistance, emergency project involvement, dam inspections, specification writing for material and equipment purchases, field maintenance, and training aid.

Engineering was also involved with surveying assistance and technical advice on construction projects, boundaries, and property corners for Alabama State Parks, as well as delineation and location of oyster reefs, public access areas, wildlife management areas, state lakes, and other state-managed property. We spent approximately 30% of Engineering Section time on technical assistance of a general nature involving various Department activities requiring engineering input.

Engineering continued to provide environmental-based assistance to the Alabama State Parks Division. The Section serves as a liaison with the Alabama Department of Environmental Management and other environmental organizations, testing and reporting, and obtaining permits. The Section organized and oversaw the acquisition of a wastewater treatment company to operate, run, and maintain treatment facilities at Lake Guntersville, Cheaha, Wind Creek, and Lakepoint state parks.

PROPERTY INVENTORY

The Property Inventory Section is responsible for tracking all new assets acquired by the Department as well as the disposal of all assets once they have reached their end of service. This includes assuring that all new property is barcoded and entered into the State Inventory Database as well as tracked throughout its lifetime within the Department.

The Property Inventory Section is also responsible for coordinating and implementing the Department's yearly internal inventory of property as well as the bi-annual audit by the State Auditor's office.

DEEPWATER HORIZON OIL SPILL RESTORATION

In August 2018 the Deepwater Horizon Oil Spill Restoration Section (DWHRS) was created as part of the Alabama Department of Conservation and Natural Resources (ADCNR) Administrative Section. The DWHRS oversees all Deepwater Horizon related activities for the Department including coordinating the administrative and technical aspects of the Deepwater Horizon oil spill Natural Resource Damage Assessment (NRDA) pursuant to the federal Oil Pollution Act.

DWHRS activities include participating in NRDA trustee council meetings, participating in trustee implementation groups, conducting public meetings related to NRDA activities, seeking public input regarding potential restoration ideas, assisting with the development of draft restoration plans and implementing restoration projects, and representing the interests of the natural resource trustees and the Governor's office.

The DWHRS assists the ADCNR Commissioner in relation to his service as the Governor's designee to the Gulf Coast Ecosystem Restoration Council, which was established pursuant to the Resources and Ecosystems Sustainability, Tourist Opportunities, and Revived Economies of the Gulf Coast States Act of 2012 (RESTORE Act). The RESTORE Act oversees 80% of the federal Clean Water Act civil penalties related to the Deepwater Horizon oil spill and outlines a structure for how those funds can be used for restoration projects within the five Gulf states.

The DWHRS also provides administrative support to the Alabama Gulf Coast Recovery Council, which was established by the federal RESTORE Act to oversee certain funds allocated directly to the State of Alabama.

In addition, the DWHRS staff assists the ADCNR Commissioner and coordinates with the Governor's office in relation to efforts by the National Fish and Wildlife Foundation (NFWF) to distribute grant proceeds for coastal restoration from the Gulf Environmental Benefit Fund. This fund resulted from two plea agreements in early 2013 that resolved the criminal cases against BP and Transocean arising from the Deepwater Horizon oil spill.

Significant accomplishments in FY19 included:

- Adopted NRDA restoration plan 3 which identified seven projects valued at more than \$23 million
- Announced funding for two new strategic land acquisition projects under NFWF-GEBF valued at more than \$8 million
- Implemented a \$2.1 million commitment and planning support grant from the Gulf Coast Ecosystem Restoration Council to support the state's efforts in collaborative planning for Gulf-wide restoration efforts
- Continued to support the administrative efforts of the Alabama Gulf Coast Recovery Council in finalizing and imple-

menting Alabama's Multiyear Implementation Plan (MIP) and State Expenditure Plan (SEP) as required under the RESTORE Act. The plans identify more than 40 projects valued at more than \$315 million.

The following is an overview of restoration projects (organized by funding streams) benefiting the State of Alabama. Additional project details are available at www.alabamacoastalrestoration.org:

NRDA Early Restoration Projects

- Marsh Island restoration project (Portersville Bay), \$11,300,000
- Dune restoration project (Gulf Shores and Orange Beach), \$1,500,000
- Nesting sea turtles habitat improvement project, \$345,000
- Avian habitat enhancement project, \$279,000
- Gulf State Park enhancement project, \$85,500,000
- Alabama oyster cultch restoration, \$3,400,000
- Alabama Swift tract living shoreline project, \$5,000,080
- Point aux Pins living shoreline project, \$2,300,000
- Osprey restoration in coastal Alabama project, \$45,000
- Bon Secour National Wildlife Refuge trail enhancement, \$545,110

NRDA Restoration Plan I Projects

- Fort Morgan pier rehabilitation project, \$3,075,000
- Laguna Cove Little Lagoon natural resource protection project, \$4,400,000
- Bayfront Park restoration and improvements project, \$1,000,000
- Dauphin Island eco-tourism and environment education area, \$4,000,000
- Mid-island parks and public beach improvements project, \$1,900,000

NRDA Restoration Plan II Projects

- Magnolia River land acquisition (Holmes tract), \$4,144,162
- Weeks Bay land acquisition (East Gateway tract), \$4,247,000
- Weeks Bay land acquisition (Harrod tract), \$3,606,900
- Lower Perdido islands restoration phase 1, \$994,523
- Southwestern Coffee Island habitat restoration project phase 1, \$825,225
- Little Lagoon living shorelines, \$210,999
- Restoring the night sky, \$399,658

- Toulmin Springs branch engineering and design, \$479,090
- Fowl River nutrient reduction, \$1,000,000
- Weeks Bay nutrient reduction, \$2,000,000
- CAST conservation “Share the Beach” program, \$935,061
- CAST triage, \$622,915
- CAST habitat usage and population dynamics, \$1,631,697
- CAST protection: enhancement and education, \$906,874
- Enhancing capacity for the Alabama Marine Mammal Stranding Network, \$2,432,389
- Alabama estuarine bottlenose dolphin protection: enhancement and education, \$686,374
- Assessment of Alabama estuarine bottlenose dolphin populations and health, \$3,059,229
- Colonial nesting wading bird tracking and habitat use assessment, \$1,547,500
- Oyster cultch relief and reef configuration, \$480,262
- Side-scan mapping of Mobile Bay relic oyster reefs, \$104,229
- Oyster hatchery at Claude Peteet Mariculture Center, \$2,949,472
- Oyster grow-out and reef placement, \$962,370
- Enhanced fisheries monitoring in Alabama’s marine waters, \$1,800,000
- Multifaceted fisheries and ecosystem monitoring in Alabama’s marine waters, \$2,200,000
- Grand Bay acquisition, \$5,770,000
- Mobile Bay shore habitat conservation and acquisition initiative phase 1, \$286,000
- Mobile County conservation acquisition, \$4,260,000
- Alabama artificial reef and habitat enhancement, \$12,500,000
- Alabama coastal bird stewardship program, \$1,460,000
- Lightning Point acquisition and restoration project phase 1, \$5,900,000
- Dauphin Island conservation acquisition, \$3,560,000
- Fowl River marsh restoration, \$1,100,000
- Bon Secour/Oyster Bay acquisition (Gulf Shores), \$12,500,000
- Gulf Highlands acquisition (Gulf Shores), \$36,000,000
- Enhanced fisheries monitoring in Alabama’s marine waters phase 3, \$4,400,000
- Little Dauphin Island restoration assessment, \$1,480,000
- Salt Aire shoreline restoration, \$12,700,000

NRDA Restoration Plan III Projects

- Perdido River land acquisition (Molpus tract), \$4,792,540
- Bayfront Park restoration and improvement phases 2A and 2B, \$4,683,304
- Gulf State Park Pier renovation, \$2,447,021
- Perdido Beach public access coastal protection, \$383,300
- Bon Secour National Wildlife Refuge enhancement – Mobile Street boardwalk, \$1,189,899
- Stewardship of coastal Alabama beach nesting bird habitat, \$2,067,381
- Dauphin Island west end acquisition, \$7,938,770
- Mobile Bay shore habitat conservation and acquisition phase 2, \$6,900,000
- Dauphin Island bird habitat acquisition and enhancement program, \$4,500,000
- Bon Secour National Wildlife Refuge acquisition, \$5,900,000
- Enhanced fisheries monitoring in Alabama’s marine waters phase 4, \$2,800,000
- Alabama artificial reef and habitat enhancement phase 2, \$22,499,000
- Lightning Point acquisition and restoration project phase 2, \$16,578,000
- Restoration of the north side of Dauphin Island phase 1, \$329,000

NFWF-GEBF Projects

- Restoration and enhancement of oyster reefs, \$3,750,000
- D’Olive watershed restoration, \$12,700,000
- Fowl River watershed restoration, \$3,300,000
- Alabama barrier island restoration assessment, \$4,400,000
- Alabama marine mammal conservation and recovery program, \$1,900,000
- Coastal habitat restoration planning initiative, \$4,200,000
- Deer river shoreline stabilization phase 1, \$750,000
- Bon Secour River headwater restoration phase 1, \$1,528,000
- Bon Secour National Wildlife Refuge acquisition phase 2 (Three Rivers), \$4,423,000
- Dauphin Island Causeway shoreline restoration engineering and design, \$250,000
- Lower Halls Mill Creek protection, \$2,687,000
- Blackwater River South tract acquisition, \$5,212,000

RESTORE - Direct Component Projects (Bucket 1)

- Alabama State Port Authority RO-RO terminal, \$29,630,741
- Baldwin Beach Express I-10 to I-65 Exit right of way acquisition, \$11,678,481
- Dauphin Island Aloe Bay Harbour Town, \$17,412,013
- Historic Africatown welcome center, \$3,689,214
- Redevelop city docks (Bayou La Batre), \$21,658,840
- Mount Vernon water treatment plant, \$1,545,000
- Mobile greenway initiative, \$9,991,000
- Northwest Satsuma water and sewer project, \$1,813,521
- Innovating St. Louis Street (Mobile's technology corridor), \$6,062,065
- Bayou La Batre water distribution system upgrades, \$5,465,180
- Mobile County blueway trail development, \$8,240,000
- Gulf Shores Ambassadors of the Environment, \$10,040,701
- Baldwin County ALDOT capacity improvements, \$58,504,000
- Fairhope working waterfront and greenspace restoration, \$6,386,000
- Planning grant for amended MIP, \$300,000

RESTORE - Federal Council FPL Projects (Bucket 2)

- Coastal Alabama comprehensive watershed planning project, \$4,342,500
- Alabama Living Shoreline Restoration Program (categories 1 and 2), \$6,250,000
- Comprehensive Living Shoreline Monitoring Program (categories 1 and 2), \$4,000,000
- Submerged aquatic vegetation restoration and monitoring program, \$875,000
- Marsh Restoration in Fish River, Weeks Bay, Oyster Bay, Meadows tract (categories 1 and 2), \$3,158,043
- Mobile Bay NEP implementation of Three Mile and Twelve Mile creek restoration, \$100,000
- Upper Mobile Bay beneficial use wetland creation site (engineering and design), \$2,500,000
- Enhancing opportunities for beneficial use of dredged sediments, \$3,000,000
- Alabama commitment and planning support grant, \$2,100,000

RESTORE - Spill Impact Component Proposed Projects (Bucket 3)

- Characterization and delineation of significant sand resource areas essential for beach restoration (offshore Alabama), \$951,175
- Alabama Seafood Marketing Commission, \$2,937,699
- Development of a regional strategic plan for the coastal Alabama region, \$579,375
- Replacement of substandard facilities at the ADEM coastal office and Mobile field office, \$6,038,599
- Extension of effluent force main from Bayou La Batre, \$16,068,000
- Three Mile Creek watershed restoration, \$12,081,900
- Aloe Bay/Mississippi Sound water quality enhancement project, \$11,845,000
- Dirt road paving program to reduce sediment, \$10,395,914
- Bayou La Batre collection system/lift station upgrades, \$13,189,150
- Mobile area storm water mapping and resiliency planning, \$3,090,000
- Perch Creek area sanitary sewer trunk line, \$3,665,048
- Implementing storm water management improvements for Toulmin Springs branch and Gum Tree branch, \$1,222,744
- One Mobile: reconnecting people, work and play through complete streets, \$1,287,500
- City of Chickasaw sewer rehabilitation project, \$1,339,000
- Longevity, stability, and water quality improvements (Bon Secour), \$350,966
- Orange Beach north sewer force main upgrade, \$5,350,850
- Fairhope sewer upgrade phase 1, \$10,300,000
- Eastern Shore sanitary sewer overflows prevention plan (Fairhope, Alabama), \$1,030,000
- Expansion of the Orange Beach Wildlife Rehabilitation and Education Center/Gulf Coast Wildlife Recovery and Interpretative Center: feasibility, planning and preliminary design, \$472,255
- Environmental restoration of Cotton Bayou and Terry Cove, \$515,000
- Auburn University Gulf Coast environmental research station, \$9,270,000
- Lillian Park beach habitat and shoreline protection, \$645,254
- Fairhope area community-based comprehensive land use plan, \$669,500
- Canal Road improvements east of Alabama State Road 161, \$1,903,718
- Little Lagoon restoration project, \$6,175,557
- Fort Morgan Parkway trail extension, \$4,566,608
- Meaher State Park improvements, \$3,553,500
- Alabama Point seawall repair, \$2,562,640
- Planning grant to amend SEP, \$300,000



MIRANDA JOHNSON STUDSTILL

MARINE RESOURCES DIVISION



The mission of the **Marine Resources Division (MRD)** is to manage the state's marine fishery resources through research, enforcement, and education for the maximum benefit of the resources and the citizens of Alabama. The Division consists of Enforcement, Fisheries, and Administrative sections.

The **Enforcement Section** employs 19 State Law Enforcement Officers, primarily tasked with patrolling Alabama's shorelines, coastal waters and adjacent federal waters and enforcing state and federal laws and regulations relating to the conservation and protection of marine resources. Officers also enforce boating safety, hunting and freshwater fishing laws, and regulations. They cooperate extensively with other federal and state agencies in coordinating cooperative enforcement operations, investigations, training, public safety, search and rescue, and other natural resource issues.

The **Fisheries Section** is responsible for making recommendations regarding fishery-related matters to managers. To

meet this responsibility, Fisheries staff conduct a variety of monitoring programs to gather data for many species of fish and invertebrates. These programs are divided into fishery-dependent and fishery-independent programs. Fishery-dependent data is collected from commercial sources such as vessel or dealer reports as well as recreational sources such as individual anglers, and party or charter boats. Fishery-independent data is collected by scientists conducting long-term resource monitoring projects. The section also works with other Gulf of Mexico state and federal agencies, as well as the public, to collect data through various projects to determine the status of state and federal marine resources. It oversees programs for oyster restoration, inshore and offshore

artificial reef programs, and the mariculture program located at the Claude Petete Mariculture Center. The Enforcement and Fisheries sections participate in outreach programs throughout the year. Outreach programs throughout the year.

The **Administrative Section** handles accounting, billing, payroll, license sales, and public inquiries. The Division is housed at two facilities, one on Dauphin Island and the other in Gulf Shores. The two Division facilities combined supported an average of 63 full-time employees, one part-time employee, and six temporary positions during FY 2018-19. There were 78 full-time, one part-time, and 12 seasonal employees budgeted during the year.

Accomplishments and Activities

FISHERIES SECTION

MRD biologists continue to monitor oyster densities on Alabama's public oyster reefs. From July 2, 2019, through September 11, 2019, a total of 370 samples were collected from public oyster reefs and processed. Samples were collected from reefs that were planted with cultch material between 2014 and 2016 and from non-planted reefs for comparison. Very low legal oyster densities were observed on many of the reefs surveyed; however, densities of oyster spat and the number of oysters of legal length had improved since samples were taken in the previous two years. Oyster drills were present during 2019 sampling events but not in significant abundance, possibly due to several extended periods of low salinity between January and May of 2019. Data

analysis showed significant increased densities of legal sized oysters in several areas in the Heron Bay and the Cedar Point West management zones compared to recent years. A determination was made to open selected oyster management zones for a limited amount of time and the harvest was slightly better than anticipated.

National Fish and Wildlife Foundation (NFWF) funded multiple projects. Offshore sampling was conducted for vertical line (100 events), bottom long-line (54 events), and trawl stations (54 events) during the year. This work complements ongoing Southeast Area Monitoring and Assessment Program surveys. NFWF-funded inshore baitfish surface trawl (241 events) sampling was also completed. One hundred Southern flounder were



targeted for tagging in October through November as part of the NFWF project of acoustic monitoring of fish movements and mortality. Hydrophones are located throughout the Alabama estuarine system to assist in tracking acoustically tagged fish and will help document movements and habitat use.

MRD staff continued to map historical oyster reef locations in Mobile Bay using side scan sonar to determine locations of live oyster reefs. To date, MRD has scanned more than 11 square miles of water bottoms. Using side scan images, several areas have been identified for ground-truthing (a method of data collection). Ground-truthing these areas will allow MRD to verify if live oysters exist in these areas. Data will be used to identify additional water bottoms that could be available for oyster restoration activities.

MRD continued the operation and maintenance of five continuous water quality monitoring stations throughout Mobile Bay. General results indicated significant periods when oxygen was not present at depths greater than 8 feet, which has adverse effects on naturally occurring oyster production.

MRD biologists participated in observer trips on a commercial blue crab vessel. Two hundred ninety-one (291) crab traps were sampled and 1,895 individual blue crabs were utilized to gather a variety of data. A total of 81 crabs were randomly selected and retained during the trip by MRD staff. Selected crabs were measured, weighed, and examined to assess sexual maturity, the presence of internal/external parasites, and other abnormalities.

MRD partnered with NOAA Fisheries and the Mobile Bay National Estuary Program to conduct the third and final Volunteer Aided Derelict Crab Trap Cleanup events in April 2019. This program was funded by a grant awarded by the NOAA Fisheries Marine Debris Program and included cleanups in 2017 and 2018. In 2019, 20 volunteers removed 114 derelict crab traps. A total of 262 crab traps were removed during this program.

MRD staff participated in a multi-state effort to gather fish age information needed for stock assessments. Biological data (age structures, length, sex, and weight) were collected from 1,044 fish representing 13 key species of marine finfish. The data is stored in the Gulf States Marine Fisheries Commission's database.

MRD was part of a group of three states participating in NOAA Fisheries' Access Point Angler Intercept Survey (APAIS). MRD

staff surveyed 3,659 recreational anglers as part of APAIS assignments in 2019. In addition, MRD samplers received training and retraining on proper surveying techniques and were tested on fish identification. APAIS data are used to estimate the recreational catch from Alabama anglers. This data is used in stock assessments for important finfish.

MRD continued an at-sea observer program to monitor angler catches on federally permitted charter vessels. The program consists of a sampler riding on a volunteer vessel operating out of an Alabama port to monitor fishing activities and collect biological data on targeted reef fish. This survey provides data that otherwise would not be accurately collected on the number and size of fish that are caught and released during the trip. Thirty-one trips were completed. This number was higher than in previous years due to higher captain participation, increased staffing availability, and favorable weather conditions.

The 2019 red snapper fishing season was managed by the State of Alabama under an Exempted Fishing Permit (EFP) issued by the National Marine Fisheries Service (NMFS). The season was originally scheduled for 27 days, but was expanded to 38 days due to inclement weather that resulted in reduced angler effort. The Alabama quota for private anglers was 1,079,513 pounds, and 1,050,651 pounds were harvested. The mandatory reporting of recreationally caught red snapper by vessels landing in Alabama continued for the sixth year. During the 2019 red snapper season, 13,346 landings reports were submitted from charter boats, headboats, and private fishing vessels. MRD staff interviewed anglers from 993 vessels and weighed 4,597 fish. Nearly 1.71 million pounds of red snapper were estimated to have been landed in Alabama during the 2019 private angler and federal for-hire seasons.

MRD's Claude Petet Mariculture Center continued stock enhancement efforts of red drum, Florida pompano, and Southern flounder. The length of light exposure and water temperatures were manipulated to induce multiple spawning events for red drum and Florida pompano. Over 486,000 1- to 2-inch red drum fingerlings were released at sites throughout coastal Alabama. More than 87,000 1- to 2-inch Florida pompano fingerlings were released at locations along Baldwin County beaches. Modifications to existing larval rearing systems are being implemented to accommodate Southern flounder hatchery activities. Southern flounder broodstock have been acclimatizing to tanks and spawning is anticipated in early 2020.

MRD staff continued fishery-independent sampling activities to gather information about the abundance and age of a variety of recreationally and commercially important fish species. Staff employed otter trawls, plankton tows, seines, and gill nets for 194 combined days on the water. This provides helpful data for establishing trend information for species that are key indicators of the ecosystem as well as data about desirable species. Each year, information is entered into MRD databases and checked for errors. The databases contain information from 1981 to the present.

MRD maintained seven coastal boating access sites during the reporting period. In addition to minor infrastructure and grounds maintenance, MRD developed contracts for replacement of existing finger piers at two coastal boat ramps in Baldwin County. At Boggy Point Boat Launch (Orange Beach), the three deteriorated finger piers, supporting piling network, and the wood breakwaters were replaced with new in-kind wooden piers to ensure the safety of those using the launch. At Bay Watch Boat Launch (Weeks Bay), the finger pier and supporting pilings were replaced.

MRD is working with ADCNR Engineering Section staff, the Alabama Historical Commission, and Volkert, Inc., to develop construction plans to replace a condemned fishing pier located at the site of historical Fort Morgan in Baldwin County. The original pier, constructed in the late 1960s, was closed several years ago due to public safety concerns related to the condition of the structure. The new pier will be constructed in the footprint of the existing pier, and construction is expected to begin in 2020.

MRD continued artificial reefing activities to enhance availability and quality of reef fish habitat, as well as to increase recreational/commercial fishing opportunities for coastal saltwater anglers. During 2019, 66 public artificial reefs were created from a variety of materials and designs in the nearshore and offshore artificial reef permit zones. An additional 20 reef sites were created with 15,000 tons of limestone aggregate to provide low-relief habitat for juvenile reef fish. Finally, a reef was constructed with a barge and tugboat deployed in the westernmost nearshore reef zone. MRD staff also inspected and permitted for deployment 276 reefs submitted by private reef builders. Each structure was evaluated to ensure compliance with USACE and the Gulf States Marine Fisheries Commission: *Guidelines for Marine Artificial Reef Materials, 2nd Edition*.

In May 2019, the MRD, in cooperation with Gulf States Marine Fisheries Commission (GSMFC) and the other Gulf states, obtained funding to conduct a cooperative one-year study to improve the quality and accuracy of commercial landings data. This will be accomplished by collecting and analyzing brown and white shrimp samples to validate, verify, and update conversion factors used to convert reported weights and units to whole (live) weight for the species from reported units. The development of updated conversion factors will allow commercial landings to be reported accurately in a common currency for use in stock assessment and management.

ENFORCEMENT SECTION

From October 1, 2018, to September 30, 2019, MRD enforcement officers conducted 2,344 commercial fishermen intercepts, 23,122 recreational fishermen intercepts, 28,630 patrol hours, and 6,895 vessel boardings.

MRD officers continue to participate in joint investigations with the NOAA Office of Law Enforcement (OLE) regarding Gulf reef fish, marine mammals, sea turtle protection, and international unreported/undocumented seafood. Additionally, they are conducting joint patrols with uniformed NOAA Enforcement Officers.

MRD Enforcement entered into the 18th Joint Enforcement Agreement (JEA) with NOAA/OLE. The JEA provides equipment and funding for officers to enforce federal laws and regulations. The most recent contract included funding for patrol vehicles, outboard engines, and repairs to vessels. Additionally, it provided funding for underway and dockside patrols for federal priorities such as reef fish and turtle excluder devices.

The Enforcement section is actively involved in the Southern District of Alabama Environmental Crimes Task Force. This partnership has allowed multiple agencies to provide a wide range of skill sets and manpower to enforce state and federal laws. The section also participates in the South Alabama Regional Search and Rescue group to provide regional search and rescue. During 2019, officers worked closely with other state law enforcement agencies in a variety of activities including the investigation, apprehension, and prosecution of persons in multiple federal fisheries violations that occurred in Alabama as well as other jurisdictions. MRD officers also participated in 16 different outreach and education events. These events provide opportunities for officers to educate the public about fishing laws and management.

Future Issues

The federal management of red snapper and other reef fish continues to be a high priority in the fishing community. The year 2020 will be the first year of full-time state management of red snapper. Alabama will have the ability to set the seasons as well as the bag and size limits for red snapper. The amount of red snapper to be caught is still provided by the National Marine Fisheries Service.

Funds have been provided to MRD for equipment and resources to enforce sea turtle and marine mammal laws and regulations, as well as provide education to the public. The implementation of the enforcement and education aspect of the sea turtle program as well as the completion of equipment purchases will begin in 2020.

MRD Enforcement was awarded a Port Security Grant from FEMA and the Department of Homeland Security. This grant

will allow MRD to add additional cameras to the existing system and upgrade existing camera locations. The system has been operating for nearly 10 years and has proven to be a significant asset to enforcement activities as well as search and rescue. The system has also been used to chronicle storm damage, and in multiple cases, uncontrolled wildfires. The remote monitoring system is a force multiplier allowing officers to check many locations from their vehicles.

The health and production of Alabama’s public oyster reefs continues to be a significant concern for MRD. Several oyster projects will begin in 2020 with the priority being the construction of an oyster hatchery addition to the Claude Petet Mariculture Center and a larval setting facility on Dauphin Island. These facilities will be used to assist recovery and rehabilitation efforts

by producing larval oysters to stock on Alabama’s reefs and to supplement natural production.

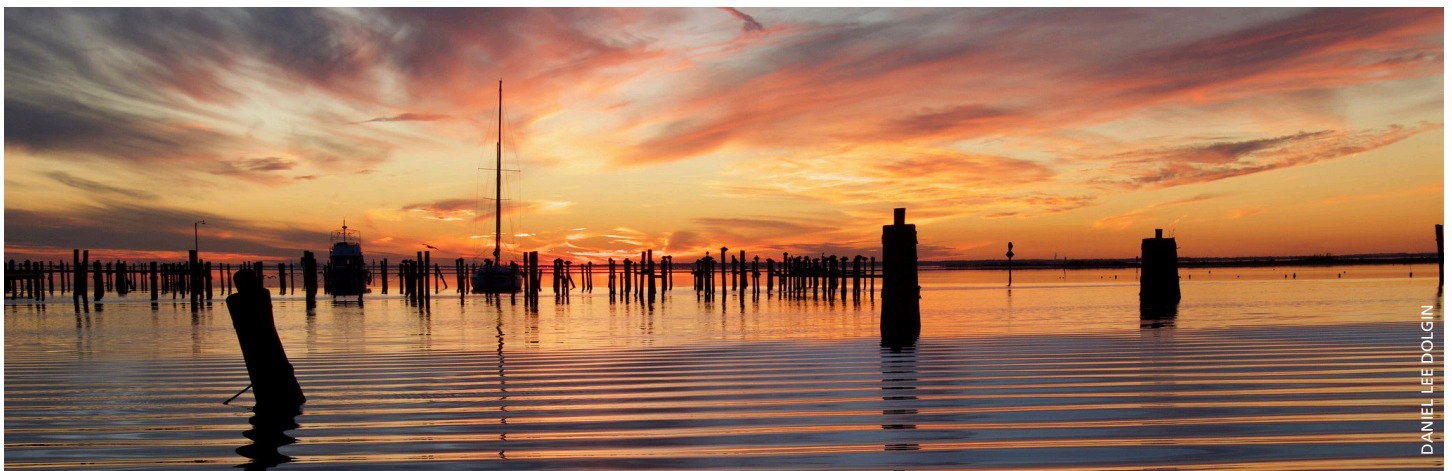
MRD is pursuing permit approval from the U. S. Army Corps of Engineers to expand Alabama’s offshore artificial reef zone by an estimated 115 square miles.

In response to the 2019 flooding events that impacted the Gulf states, MRD will continue to work with the federal government to develop a plan for administering disaster relief funding.

MRD will continue to work with other state and federal agencies in the assessment, monitoring, and rehabilitation efforts needed in response to the Deepwater Horizon oil spill. The Fisheries Section will work closely with the NRDA process to implement fisheries assessment and monitoring plans.

Marine Resources 2019 Budget				
BUDGETED ITEM	BUDGET	EXPENDITURES	BUDGET	EXPENDITURES
PERSONNEL COSTS	\$3,429,020.00	\$2,935,184.40	\$290,488.00	\$27,441.45
EMPLOYEE BENEFITS	\$1,519,723.00	\$1,309,309.36	\$157,891.00	\$12,424.54
TRAVEL- IN-STATE	\$30,345.00	\$3,536.50	\$10,500.00	\$101.25
TRAVEL -OUT- OF-STATE	\$25,000.00	\$13,322.68		
REPAIRS AND MAINTENANCE	\$188,423.00	\$81,591.32	\$1,000.00	\$677.00
RENTALS AND LEASES	\$50,000.00	\$35,123.03	\$1,000.00	\$-
UTILITIES AND COMMUNICATION	\$230,000.00	\$174,816.26	\$23,250.00	\$-
PROFESSIONAL SERVICES	\$1,166,560.00	\$747,170.04	\$792,727.00	\$133,920.54
SUPPLIES, MATERIALS & OPERATING EXPENSES	\$716,825.00	\$438,840.47	\$133,425.00	\$912.58
TRANSPORTATION EQUIPMENT OPERATIONS	\$602,126.00	\$384,180.95	\$65,597.00	\$13,540.25
GRANTS AND BENEFITS	\$5,303,927.00	\$722,297.19	\$37,126.00	\$-
CAPITAL OUTLAY	\$8,015,112.00	\$2,321,330.44	\$165,000.00	\$-
TRANSPORTATION EQUIPMENT PURCHASES	\$500,000.00	\$130,908.11	\$42,000.00	\$-
OTHER EQUIPMENT PURCHASES	\$1,148,587.00	\$640,927.92	\$540,213.00	\$55,229.98
ADMINISTRATIVE TRANSFER	\$750,000.00	\$602,836.00		
TOTAL	\$23,675,648.00	\$10,541,374.67	\$2,260,217.00	\$244,247.59

*** NUMBERS FROM STATE OF ALABAMA BUDGET MANAGEMENT REPORT * BUDGET FISCAL YEAR 2019 THROUGH SEPT 30,2019**



DANIEL LEE DOLGIN



WILD OYSTER PRODUCTION IN ALABAMA'S ESTUARINE WATERS

By: Colonel Scott Bannon, Director, Alabama Marine Resources Division

The **Alabama Marine Resources Division (AMRD)**, with offices on Dauphin Island and in Gulf Shores, is charged with managing Alabama's marine fishery resources through assessment and monitoring, applied research, and enforcement programs. Alabama's iconic oyster fishery has been the focus of increased MRD attention due to downward trends for the past several years for harvestable oysters. In fact, after extremely low harvests in 2016-2017 and 2017-2018, assessments of harvestable oysters were too low to even attempt an opening in fall of 2018 and spring of 2019. Restricted oyster harvest was opened by MRD in late 2019.





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To assess Alabama's public oyster reefs, MRD divers annually perform counts within "quadrats"—one-square-yard areas randomly selected and falling along 300-foot lines stretched at intervals across a reef's footprint. Within each quadrat, the divers count legal-sized oysters (three inches or longer), sub-legal-sized oysters (between two and three inches long), oyster spat (tiny, young, recently settled oysters measuring less than two inches), and oyster drills (predators); they then calculate numbers of each per acre. These data are used to measure oyster productivity trends and determine status. Data have revealed a dramatic downward trend over recent years for harvestable oysters, despite spat counts remaining relatively high.

This inconsistency may be related to high spat mortality caused by low dissolved oxygen in some areas, low salinity events triggered by storm-related freshwater influx, or predation related to drought and the resulting higher salinities favored by oyster predators. Sufficient oxygen concentrations are necessary for spat growth, development, and survival, and hypoxic (low oxygen) conditions are common near the bottom of Mobile Bay. Salinity swings stress juvenile oysters in at least two ways. Spat surviving to adulthood has been found to be greatest in locations farthest from freshwater influence, and prolonged low salinity conditions caused by significant or prolonged rain events are particularly stressful to them. Conversely, while higher, less brackish salinities do not stress young oysters physiologically, they instead provide conditions preferred by the oyster's primary predator, the oyster drill.

Wild oyster production in Alabama is critical for several reasons. Oysters are a necessary part of a healthy estuary because of their impressive filtration capabilities and provision of food sources and complex habitat opportunities for a variety of fish,

shellfish, and wildlife. Additionally, they provide a source of food for American consumers and income for communities in south Alabama. The decline in oysters for public harvest, indicated in MRD surveys, forced the Division to look hard at this valuable resource. While no single cause can be blamed for the decline that began around 2004, multiple negative influences have contributed. Hurricanes Ivan (2004) and Katrina (2005) changed some of the dynamics around oyster beds in addition to the storms' direct impacts. These storms were followed by several years of drought, allowing tremendous predation by drills. Additionally, low dissolved oxygen levels and prolonged rain events in recent years reduced salinity levels for extended periods of time, contributing to declining oyster populations.

Over the next three years, MRD staff will implement a management plan developed by the Alabama Trustee Implementation Group as part of the Natural Resource Damage Assessment (NRDA). This plan recommends strategies to counter the stressors impacting wild oysters in Alabama waters. Recommended projects, with funding from NRDA, include stock enhancement through construction of an oyster hatchery at the Claude Petet Mariculture Center in Gulf Shores and the expansion of MRD's facility on Dauphin Island. The expanded Dauphin Island facility will serve as a base for the "grow-out phase" of hatchery-produced oysters and conduct sonar scanning to identify and prioritize locations in the upper and middle portions of Mobile Bay that are capable of sustaining spawning stocks to support a regional oyster larval pool and reef restoration using alternative methods of cultch (material used to develop an oyster bed) placement to avoid hypoxia or other stressors to oyster growth. ■

STATE LANDS DIVISION



The **State Lands Division (SLD)** manages undeveloped, state-owned trust lands that are specific as to their identity as well as to the income beneficiary. The land management program includes Sixteenth Section and Indemnity School Lands of approximately 30,000 acres; approximately 7,000 acres of Department of Mental Health trust lands; Muscle Shoals Grant Lands of approximately 8,000 acres; and other state agency lands, including submerged lands (inland and coastal), of approximately 600,000 acres. Resource uses include oil and gas exploration and development, timber harvesting, farming, coal mining, hunting leases, and commercial uses. SLD continues its efforts to identify additional means of revenue generation through management of these trust lands.

The Forever Wild Land Trust program is administered by the SLD at the direction of that program's Board of Trustees. Division personnel provide administrative support including coordination of the assessment and appraisal process, land acquisition transactions, budget preparation, and annual reporting to the Governor and Legislature. In addition to these administrative services, the SLD also manages many of Forever Wild's 270,242 acres, as well as complementary tracts owned by the SLD.

The SLD conducts sales and leases of excess state-owned lands pursuant to the State Land Sales and Leasing Act. This law establishes a procedure aimed at ensuring that the state receives full fair market value for lands that state agencies sell or lease and that the process is open, competitive, and subject to public scrutiny.

The SLD maintains the state Land Resource Information Center (LRIC), which is a database of lands owned by the State of Alabama and its departments, agencies, and institutions. The SLD implemented public search capabilities of this database in 2013. This provides the members of the public the ability to access and search information maintained in the LRIC database. The database can be found by following the "state properties" and then "state land" links on the Open.Alabama.gov website. The LRIC currently contains more than 6,500 land records.

Animal and plant species and areas of biological significance that make up the rich natural diversity of our state are identified and

inventoried as part of the Alabama Natural Heritage Database maintained by the SLD. This effort provides important biological information to conservation organizations, developers, governmental agencies, and the public. It also complements the SLD's role in evaluating land acquisition nominations submitted to Forever Wild and implementing a multiple-use management strategy designed to maximize public access to Forever Wild tracts.

The SLD operates three facilities dedicated to conservation and land stewardship educational programs and a fourth dedicated to sporting dog field trials, habitat restoration, and hunting programs for youth and individuals with physical disabilities. Located in Spanish Fort, the 5 Rivers Delta Resource Center serves as a gateway to outdoor recreation, conservation education, and land stewardship in the Mobile-Tensaw River Delta. The Weeks Bay National Estuarine Research Reserve (NERR), located in Fairhope on Weeks Bay (an estuary of national significance), conducts education and outreach, research, coastal training programs, and stewardship activities related to the estuary and its watershed. The Wehle Land Conservation Center is located in Midway (Bull-ock County) and consists of the Robert G. Wehle Nature Center and the Elhew Field Station (EFS), both funded in part through the Robert G. Wehle Charitable Trust. Located in Alabama's Black Belt region, the M. Barnett Lawley Forever Wild Field Trial Area is south of Greensboro in Hale County.

The SLD conducts coastal resource management and planning through the Alabama Coastal Area Management Program (ACA-



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MP). ACAMP's purpose is to promote beneficial management of the lands and waters located in Alabama's coastal area through a comprehensive and cooperative program designed to preserve, enhance, and develop these valuable resources for the benefit of present and future generations. This program works in cooperation with the Alabama Department of Environmental Management (ADEM) and receives federal funds from the National Oceanic and Atmospheric Administration's (NOAA) Office of Ocean for Coastal Management within the Department of Commerce. The ACAMP, as well as research activities and educational programs at the Weeks Bay NERR, complements the Division's responsibilities for managing submerged lands, including promoting public trust resource awareness and the understanding of riparian/littoral area development and associated impacts on private property and public use of Alabama's tidal waters.

The SLD administers a regulatory program that manages impacts and improvements to public tidal submerged lands in conjunction with ADEM and the U.S. Army Corps of Engineers and their respective jurisdictions on state and federal waters. The SLD regulations are designed to balance the rights of riparian property owners with the public use of those tidal submerged lands for navigation as well as fishing and other recreational uses.

SLD staff supports the ADCNR Commissioner and Governor Kay Ivey in the administration of grants and programs funded by the Gulf of Mexico Energy Security Act (GOMESA). This act directs the U.S. Department of Interior to distribute a portion of revenues generated from offshore oil and gas leases in federal waters of the Gulf of Mexico for purposes such as natural resource restoration, coastal protection, implementation of conservation plans, and other efforts to mitigate impacts of Outer Continental Shelf activities. SLD staff conducts an annual solicitation for project proposals, executes grant awards for projects approved by Governor Ivey, and monitors GOMESA project implementation and compliance.

The SLD manages its responsibilities through a Land Management/Administrative Section, which includes Land Stewardship/Enforcement, Asset Management, Recreational Programs, and the Natural Heritage Program, as well as through Coastal Section, which includes the Coastal Zone Management Program, Weeks Bay Reserve, and the 5 Rivers Delta Resource Center. At the end of FY19, SLD employed 75 employees, including part-time or seasonal employees, in support of its programs.

Several examples of the accomplishments by the various programs and facilities operated by the SLD for this past year follow.

ASSET MANAGEMENT ACCOMPLISHMENTS

- Generated more than \$50.8 million in revenue for distribution to several state agency beneficiaries including, but not limited to, the Alabama Trust Fund (\$42.5 million), Department of Education (\$3.09 million), Department of Corrections (\$549,973), Alabama Historical Commission (\$300,951), and Department of Mental Health (\$73,674).
- Examples of Asset Management Activities Included:
 - Completing of reforestation on 2,813 acres and initiating of reforestation activities (i.e., site prep) on an additional 2,513 acres providing potential future revenue streams for state beneficiaries, including the Department of Education and the General Fund.
 - Assisting state agencies with revenue generation on trust lands through initiation of leases and sale of excess property pursuant to the Land Sales and Leasing Act's appraisal and bid process.
 - Administering of revenue-generating activities on state-owned lands, including timber sales and issuance of hunting leases, shellfish aquaculture easements, riparian easements, river-crossing permits, submerged/upland pipeline rights of ways, dredge permits, farming/hay leases, oil and gas leases, and coal leases.
 - Conducting timber salvage operations on Education Trust property in Houston County as a result of the impact of Hurricane Michael.

FOREVER WILD LAND TRUST ADMINISTRATION ACTIVITIES

- Administered the acquisition of 10 tracts across eight counties totaling 2,156.06 acres, and performed two land exchanges resulting in a net gain of 198.2 acres:
 - Barbour WMA-Leak Creek Addition (1,048 acres Barbour County)
 - Big Canoe Creek-Epps Addition (40 acres St. Clair County)
 - Coldwater Mountain-Rice Addition (19.5 acres Calhoun County)
 - Coldwater Mountain-Sarrell Addition (22 acres Calhoun County)
 - Freedom Hills WMA-Robbins Addition (154 acres Colbert County)
 - Grand Bay Savanna (GBS)-Little River Addition (363.56 acres Mobile County)
 - GBS-Richard Addition (80 acres Mobile County)
 - Guntersville State Park-Smith Cemetery Addition (46 acres Marshall County)

- Slaughter Swap (154-acre net gain Baldwin County)
- Tannehill-Ayers Addition (354 acres Jefferson County)
- Weeks Bay Reserve-Meadows Phase III Additions (29 acres Baldwin County)
- Provided administrative support for the Public Education Initiative to improve the awareness and understanding of the Forever Wild Land Trust program and the opportunities it provides to Alabama's citizens.
- Processed and evaluated 31 Forever Wild Land Trust willing seller tract nominations.

FOREVER WILD RECREATIONAL AND LAND STEWARDSHIP ACTIVITIES

- Managed the public physically disabled and youth hunting programs providing 30 days of hunting opportunities, and hosted 30 sporting dog field trial/hunt tests involving more than 2,000 sporting dogs at the M. Barnett Lawley Forever Wild Field Trial Area in Hale County. These events brought more than 3,000 visitors to the tract and surrounding areas.
- Hosted almost 2,000 visitors at the Wehle Land Conservation Center facilities for outdoor recreational and educational activities.
- Expanded public access opportunities by offering 40 open woods days at the Forever Wild Land Trust Sipsey River Recreation Area (Tuscaloosa County) and offering 36 open gate days during the hunting season at the Red Hills (Monroe County), Old Cahawba (Dallas County), Splinter Hill Bog (Baldwin County), and Lillian Swamp (Baldwin County) Forever Wild tracts.
- Maintained approximately 388 miles of public recreation trails for activities such as horseback riding, hiking, biking, canoeing, and multi-use trails and boardwalks at the Shoal Creek Nature Preserve (Lauderdale County), Walls of Jericho (Jackson County), Wehle (Bullock County), Splinter Hill Bog (Baldwin County), Old Cahawba Prairie (Dallas County), Jacinto Port (Mobile County), Coldwater Mountain (Calhoun County), Dothan Park Trails (Houston County), Grand Bay Savanna (Mobile County), Cahaba River Park (Shelby County), Perdido River Complex (Baldwin County), Freedom Hills Complex (Colbert County), Indian Mountain Complex (Cherokee County), Mobile-Tensaw Delta WMA (Mobile/Baldwin County), Gothard-AWF Yates Lake WMA (Tallapoosa County), Turkey Creek Nature Preserve (Jefferson County), Coosa County WMA (Coosa County), Tannehill Complex (Bibb County), Blakeley Addition (Baldwin County), and Coon Creek (Elmore County) Forever Wild tracts.
- Hosted grand opening for approximately 17 miles of new mountain bike trails at the Cahaba River Park in partnership with the Shelby County Commission.

- Secured two grants through the Alabama Department of Economic and Community Affairs Recreational Trails Program. One grant provided \$137,000 to replace two footbridges on the Walls of Jericho hiking trail located in Jackson County. The second grant provided \$43,000 for acquiring new equipment needed for statewide trail maintenance.
- Coordinated efforts with the Alabama Law Enforcement Agency (ALEA) for use of their rescue helicopter to deliver bridge replacement materials into a remote location at the Walls of Jericho. This opportunity was a cost-savings opportunity for the Forever Wild program that also provided a mutually beneficial aerial training exercise for ALEA.
- Assisted the City of Dothan with cleaning up Hurricane Michael debris from the Forever Wild Trails at Beaver Creek.
- Replaced two footbridges on the Shoal Creek Nature Preserve's Lawson Branch Loop hiking trail located in Lauderdale County.
- Assisted the Forever Wild Field Trial Area in Hale County with prescribed burning and also repaired and repainted the exterior of several facility buildings.
- Continued a citizen science habitat monitoring project at three locations on Grand Bay Savanna, Wehle Land Conservation Center, and Old Cahawba Prairie, which invites visitors to the location to photograph the habitat from a fixed camera bracket and share via social media (<http://alabamaforeverwild.com/project-habitat-watch>). This will create a long-term photo documentation of the landscape.
- Performed prescribed fire on more than 3,048 acres as part of maintaining or enhancing the natural plant communities occurring on various Forever Wild tracts.
- Employed both chemical and mechanical methods for control of exotic plant species, along with various trapping techniques for removal of invasive animal species on various Forever Wild tracts throughout the state.
- Completed reforestation of 2,813 acres of shortleaf pine on Freedom Hills and Lauderdale WMAs.
- Initiated reforestation of 285 acres of longleaf on Barbour WMA.

NATURAL HERITAGE SECTION ACCOMPLISHMENTS

- Performed biodiversity survey work, conducted habitat assessments, participated in trail planning, and continued collecting detailed GPS/GIS data of existing Forever Wild tracts to aid with the management and research of these tracts.
- Maintained GIS server software allowing greater transparency of Forever Wild holdings and ADCNR facilities to the public by providing an interactive map online (<http://con->

servatongis.alabama.gov/fwlt/). This same software is being used to improve geographic information transmission within the Division and the Department.

- Maintained the Natural Heritage Section (NHS) database, partially funded by a State Wildlife Grant, as a database accessible via a secure internet website for more than 750 approved users, currently containing more than 3.3 million records.
- Continued to enhance the Alabama Natural Heritage Section Herbarium with a current total of 6,250 specimens – all of which have been digitized, imaged, and databased.
- Successfully established eligibility to receive and administer Section 6 funding for at-risk plant species from the U.S. Fish and Wildlife Service. In the first year of this program, SLD administered \$87,216 in federal matching funds, including subawards to Alabama universities to conduct research on four at-risk plant species.

GULF OF MEXICO ENERGY SECURITY ACT (GOMESA) ACCOMPLISHMENTS

- State Lands staff continued to provide administrative support to the GOMESA program by overseeing the disbursement of funds and providing support to the awarded entities.
- In January 2019 the staff solicited project suggestions from the public and received 57 proposals for GOMESA funding, resulting in 15 awards totaling approximately \$27.5 million for the following projects:

Equipment and supplies for monitoring harmful algal blooms in Gulf coastal shellfish growing areas (Alabama Department of Public Health - \$20,000)

— Installation and maintenance of a stream gauge at Fish River on Baldwin County 32 (Baldwin County Commission - \$87,000)

— Marine debris and shoreline cleanup program (City of Orange Beach - \$1,300,000)

— Baldwin County Intracoastal Waterway boat ramp acquisition (Baldwin County Commission - \$7,500,000)

— Coastal Alabama watershed enhancement project (Alabama Forestry Commission - \$1,500,000)

— Sediment geochemistry investigation of the Mobile-Tensaw River Delta (Geological Survey of Alabama - \$216,000)

— Sediment characterization and geochemistry distribution within Mobile Bay and Mississippi Sound, Baldwin and Mobile counties (Geological Survey of Alabama - \$755,000)

— Middleton Causeway boat ramp improvements (ADCNR State Lands - \$150,000)

- Bayou La Batre boat ramp (The Nature Conservancy - \$250,000)
- Dauphin Island land acquisition and boat ramp addition (Town of Dauphin Island - \$4,000,000)
- Mobile Bay western shore land acquisition (Mobile County Commission - \$4,400,000)
- Restoration of D'Olive Bay boat channel (City of Daphne - \$800,000)
- Gulf State Park recreational access enhancements (ADCNR State Parks Division - \$4,000,000)
- Mount Vernon Park enhancements for addition to the birding trail (Town of Mount Vernon - \$78,000)
- Causeway land acquisition, restoration, and park addition (City of Spanish Fort - \$2,500,000)

COASTAL ZONE MANAGEMENT SECTION ACCOMPLISHMENTS

The Alabama Coastal Area Management Program staff provided technical support, funding, and oversight for 17 sub-awards benefiting projects and activities in Mobile and Baldwin counties. These sub-awards totaling more than \$444,000 in federal funds provided by the National Oceanic and Atmospheric Administration supported the following:

- Development of an updated management plan and stormwater implementation plan for the D'Olive Creek Watershed, which stretches across both the City of Spanish Fort and the City of Daphne.
- Installation by the Alabama Department of Transportation of watershed identification signage along the I-10 and I-65 corridors in Mobile and Baldwin counties.
- Promotion of sustainable tourism and improved public access in Alabama's coastal area through the Alabama Gulf Coast Convention and Visitors Bureau.
- Support for multiple municipal planning efforts, including comprehensive planning, zoning and mapping updates, stormwater management, and subdivision regulation updates (City of Creola, City of Semmes, City of Prichard, City of Orange Beach, City of Gulf Shores, and Town of Dauphin Island).
- Incorporation of the Alabama Coastal Nonpoint Pollution Control Program into the Mobile Bay National Estuary Program Comprehensive Conservation and Management Plan.
- Provision of technical assistance, training, and support to communities related to the FEMA Community Rating System, including continued support of the South Alabama Flood Engagement Team to provide a forum for information sharing and training of coastal floodplain managers.
- Administration of the Coastal Geospatial Data Group by the Geological Survey of Alabama to increase

opportunities for data sharing and to improve management of coastal resources.

- Sponsorship and organization of the 32nd annual Alabama Coastal Cleanup in partnership with the Alabama People Against a Littered State, resulting in 4,500 volunteers removing more than 32,000 pounds of marine debris and recyclable aluminum and plastics.

SUBMERGED LANDS REGULATORY ACCOMPLISHMENTS

- Continued to coordinate with federal, state, and local governments as well as individual property owners regarding potential impacts to state-owned submerged lands.
- Continued to provide information about the SLD regulations as a means to efficiently manage uses of public submerged lands.
- Received, reviewed, and/or approved 172 permit applications for activities impacting near-shore public trust submerged lands through the Notice of Intent to Impact State Owned Submerged Lands (NOI) permit application process and executed 15 dredge permits.
- Received four applications for Shellfish Aquaculture Easements and issued two preliminary approval letters and three Notices to Proceed as part of Alabama's Shellfish Aquaculture Program, which promotes the cultivation and harvesting of hatchery-spawned oysters for commercial purposes.

5 RIVERS DELTA RESOURCE CENTER ACCOMPLISHMENTS

- Hosted more than 44,000 visitors from at least 48 states plus the District of Columbia and 20 foreign countries.
- 5 Rivers educational staff administered 214 scheduled educational activities serving 12,186 students both at the facility and offsite. Two new educational exhibits were designed and built to highlight the longleaf pine forest ecosystem and manatees.
- Hosted 388 receptions and business meetings with 20,748 participants, and continued to provide a venue for local conservation organizations to hold monthly public meetings and for ADCNR to offer hunter education programs.
- The Cypress Gift Shop continued to organize and host Outdoor Market events showcasing local community vendors. Nine market events drew an average of 38 local vendors per event and an estimated 2,718 total visitors.
- Partnered with Historic Blakeley State Park in August and September in a pilot program to provide boat tours for student field trips and the public. During those two months, three specialty cruises were offered serving 124 passengers.



- Hosted the 10th Annual 5 Rivers Halloween Trick or Treat event, which drew approximately 1,140 participants.
 - Hosted two 5K fundraising trail runs with a total of approximately 450 runners.
 - Partnered with the City of Spanish Fort to host the 11th Annual Delta Woods and Waters Expo, a three-day conservation event that served more than 2,700 participants.
 - Partnered with the University of Alabama Center for Economic Development to become part of the state's Indigenous Mound Trail.
 - Partnered with the Weeks Bay Foundation to serve as host site for the 16th Annual Alabama Coastal BirdFest, which drew more than 300 registrants to participate in a reception, and four days of guided birding and nature tours, and educational workshops.
 - Continued to increase marketing and outreach presence in coastal Alabama through participation in tourism and marketing committees of the area chambers of commerce, coordination with area convention and visitors bureaus, participation in the Tourism Ambassador Programs, and participation in various additional community events including the Greater Mobile Boat Show, Dauphin Island Discovery Days, Bay Area Earth Day, Bellingrath Gardens Kids Gulf Discovery Day, Alabama Coastal BirdFest Conservation Expo, and Baldwin County Fair.
 - Supervised planning and implementation of three Eagle Scout projects.
 - Implemented facility improvements, including refurbishing the wooden floors in Delta Hall and Bartram Landing, repairing and painting the inside of Bartram Landing, and completely overhauling the HVAC system for the Nature Center, Conference Center, and stewardship offices and refurbishing three of the main walking trails
 - Continued to help manage and maintain the Bartram and Perdido River Canoe Trails, the Alabama Coastal Birding Trail, and causeway boat ramps. Canoe trail camp shelters were reserved more than 180 times in the fiscal year.
- Conducted education programs for approximately 950 students (2,692 contact hours) and 2,729 adults.
 - Conducted three Teachers on the Estuary (TOTE) Workshops for 58 teachers, with topics including the ecology and biodiversity of Weeks Bay and associated habitats and the effects of urbanization on coastal resources. Trained teachers in the use of hands-on classroom activities using locally collected data from Reserve monitoring programs. Provided teachers with materials and curriculum to facilitate learning in their classrooms.
 - Facilitated citizen science microplastics sampling and participated in monthly nurdle surveys at part of the Gulf Nurdle Patrol (<https://nurdlepatrol.org/>).
 - Conducted 16 workshops for 368 coastal decision-makers providing 2,942 training hours.
 - Partnered with the ACAMP to continue implementation of the Community Resilience Initiative to reduce flooding risks in the coastal area.
- The Reserve's research and stewardship program activities included the following:
 - Coordinated research from universities and agencies on seven research projects.
 - Collected water quality and weather data from five sites in Weeks Bay as part of the Reserve System-Wide Monitoring Program.
 - Hosted an intern who participated in research and stewardship projects, assisted with educational program, and managed a citizen science microplastics monitoring project.
 - Hosted 890 guests in the research dormitory including researchers, GulfCorps volunteers, workshop participants, and visiting educators.
 - Trained GulfCorps members in the use of Real Time Kinematic GPS to assist with collecting data to enhance elevation models of marsh habitat at the Reserve. Also provided training to GulfCorps regional staff on habitat monitoring.
 - Worked with GulfCorps to implement habitat management activities on Reserve parcels including, invasive plant removal and treatment, prescribed fire preparation and implementation, and pre/post restoration monitoring.
 - Participated in the Northern Gulf of Mexico Sentinel Site Cooperative and NOAA Sentinel Site program to focus research and monitoring efforts on coastal resilience issues.
 - Partnered with the Weeks Bay Foundation, ACAMP, and NOAA's Marine Debris program to remove five derelict vessels from the Weeks Bay watershed, to restore the removal sites with native plantings, and to develop educational signage and brochures for distribution in Alabama's coastal area.
 - Provided interpretive vessel tours of the Weeks Bay estuary for more than 450 visitors.

WEEKS BAY NATIONAL ESTUARINE RESEARCH RESERVE ACCOMPLISHMENTS

- The Weeks Bay National Estuarine Research Reserve (Reserve) hosted approximately 11,000 visitors from more than 41 states and 14 foreign countries and was involved in a number of administrative activities including:
 - Conducted quarterly meetings of Weeks Bay Advisory Committee and coordinated with the Weeks Bay Foundation in publishing quarterly newsletters.
 - Continued to implement the federally approved 5-Year Management Plan for the Weeks Bay National Estuarine Research Reserve.
- The Reserve's Education and Coastal Training program activities included the following:

- The Reserve's volunteer program continued to be a critical source of operational and financial assistance, providing 2,836 hours of volunteer support for Reserve activities, including the following:
 - Conducted volunteer orientation for 12 new volunteers and individual hands-on training for 11 volunteers.
 - Provided 14 volunteers to support Reserve education programs.
 - Coordinated, advertised, and facilitated two native plant sales as fundraising events.
 - Provided financial and logistical support for more than 18 Reserve-supported activities including workshops, research projects, summer education programs, and special events.
 - Presented educational programs and tours to 23 organizations, and maintained the Reserve's arboretum and longleaf pine restoration site.
- Hosted 38 youth and adults for overnight field trips for the Children and Mentors Outdoors (CAMO) Group.
- Administered and participated in USGS Breeding Bird Survey in Alabama.
- Monitored and oversaw management actions for red-cockaded woodpecker population on the Forever Wild Coosa Wildlife Management Area.
- Continued operation of a Monitoring Avian Productivity and Survivorship (MAPS) banding station on the Wehle Forever Wild Tract for the fourteenth year.
- Continued long-term reptile and herpetofaunal inventory through passive capture techniques and vocal recording programs on the Wehle Forever Wild tract.
- Continued a comprehensive floristic survey of the Wehle Forever Wild Tract in cooperation with other state field botanists.
- Continued Eastern bluebird monitoring, Northern bobwhite covey count surveys and operation of a migratory bird night-flight call program on the Wehle Forever Wild Tract.
- Continued Gopher Tortoise (*Gopherus polyphemus*) population monitoring on the Wehle Forever Wild Tract to evaluate establishment/site retention of translocated individuals.
- Published findings from select EFS research projects and/or partnerships in peer-reviewed journals to disseminate findings to the research community.
- Continued management and operation of a frog call recording program using custom-built automated recording units to monitor annual anuran vocalizations on the Wehle Forever Wild Tract.
- Conducted a prescribed fire covering 458 acres on the Wehle Forever Wild Tract as part of maintaining or enhancing the natural plant communities and benefitting a suite of associated wildlife species.

WEHLE LAND CONSERVATION CENTER/ ELHEW FIELD STATION ACCOMPLISHMENTS

- Hosted 222 students over eight weeks of environmental outreach programs for 2nd-6th grade students from Bullock and surrounding county schools.
- Hosted 356 visitors during 16 open trail weekends.
- Hosted more than 634 visitors associated with state and county agency meetings, technical workshops, church retreats, Boy Scouts and Girl Scouts, and regional council meetings.
- Hosted 339 students and teachers at the Bullock County Water Festival and Forestry and Wildlife for Youth events.
- Hosted 338 youth and adults for the Bullock County fishing derby, co-sponsored by ADCNR's Wildlife and Freshwater Fisheries Division, the Bullock County Sheriff's Department, and the Osprey Fishing Organization.

STATE LANDS 2019 BUDGET AND EXPENDITURES

Section Name	Budget	Expenditures
Land Management & Stewardship Activities	\$15,653,503	\$7,117,007
Administrative Transfer to Department	\$900,000	\$693,442
Coastal Zone Management Program	\$2,500,000	\$1,666,355
Weeks Bay National Estuarine Research Reserve	\$1,500,000	\$1,012,781
Total per State Lands Fund	\$20,553,503	\$10,489,585
Forever Wild Land Trust Fund	\$16,977,903	\$5,816,333
Forever Wild Stewardship Fund	\$1,500,000	\$1,252,673



STATE LANDS AND FOREVER WILD: BUILDING PARTNERSHIPS WITH LOCAL COMMUNITIES TO INCREASE PUBLIC ACCESS AND ENHANCE ECONOMIC IMPACT

It is no secret that outdoor recreation is vitally important to Alabama's economy. The State Lands Division currently manages 388 miles of recreational trails on 23 tract complexes in 17 counties. Of the total mileage, 173 miles are canoe trail, 77 miles are hiking trail, 45 miles are mountain biking trail, 39 miles are horseback trails, and 54 miles are multi-use trails, with the majority of these trail miles being made possible through land acquisitions by the Forever Wild Land Trust program. While all trail types offer important public access to outdoor recreation, Alabama continues to experience the growing popularity – and associated economic impact – of mountain biking trails.



SUCCESSFUL PARTNERSHIP

Forever Wild recognized the potential to advance conservation goals while simultaneously increasing public recreation and enhancing local economies through mountain biking soon after acquisition of the Coldwater Mountain tract in Calhoun County. This 4,284-acre tract, located between Anniston and Oxford, provides critical protection for the Coldwater Spring watershed. Boasting 35 miles of bike trails, which range from beginner to experienced and include two downhill courses, the tract is now also widely recognized as one of the premier mountain biking destinations in the Southeast. Shortly after the 2012 grand opening of the trail system, Coldwater Mountain became one of only 40 biking destinations worldwide to receive a “Bronze-Level Ride Center” designation from the International Mountain Biking Association.

Development of the trailhead and trail system was the result of efforts by State Lands, in coordination with the City of Anniston and the Northeast Alabama Bicycle Association, to secure a federal Recreational Trails Program Grant through the Alabama Department of Economic and Community Affairs. The success of these efforts, and the resulting economic impact to the surrounding communities estimated at \$4 million, provided a model to Forever Wild and State Lands for identifying additional biking trail opportunities in other areas of the state.

A successful partnership between State Lands and the City of Dothan began as part of Forever Wild’s 2014 acquisition of a 387-acre tract in Houston County now known as the Dothan Trail Park. To date, the City of Dothan has constructed more than 10 miles of mountain biking trail with an additional 4 miles of trail coming in 2020. While south Alabama is not usually known for mountain biking due to the lack of natural terrain variations, the City of Dothan worked with the International Mountain Biking Association and trail builders to create a unique trail system designed to accommodate a wide range of riders. In fact, Dothan was able to host the 2017 Southern Mountain Bike Summit as a direct result of the trail development. This event, which attracted mountain biking enthusiasts from a 7-state area, served as an early indicator of the economic impact potential of the site.

Dothan Trail Park also hosts an annual “Fat Tire Festival” that includes guided bike rides, races, skills courses, and live entertainment. This 3-day event brings in people from across the Southeast. Also, the City of Dothan partners with the Southeast Alabama Mountain Bikers Club each year to host a “Take a Kid Mountain Biking Day.” Local vendors donated 30 bikes to assist in making this popular event accessible to children in the community who otherwise would not be able to participate.

Dothan Trail Park also protects a portion of the Beaver Creek watershed and has a 1-mile boardwalk system, allowing visitors the chance to view the wetland area. A combination of the view and smooth biking trails also makes the area highly desirable for hikers who are welcome on the multi-use trails. Bikers, hikers, and festival-goers contributed to the Dothan Trail Park receiving more than 50,000 visitors in one year.

In 2019, as a result of another Forever Wild acquisition, State Lands partnered with the Shelby County Commission to open the Shelby County Cahaba River Park. This 1,527-acre multi-use park offers 17 miles of professionally built mountain bike trails providing a scenic ride to bikers of all skill levels. The park has received an overwhelming number of users from the general public, from small local hiking and biking groups, all the way up to high school mountain biking teams. In addition to the park’s routine daily use, Birmingham Urban Mountain Pedalers, better known as BUMP, hosts one to two group rides each month averaging 40 attendees for each ride. During the fall, the park hosts 20 to 40 high school riders several days a week as part of training to compete in National Interscholastic Cycling Association events throughout the state.

Cahaba River Park, situated adjacent to the William R. Ireland-Cahaba River WMA, also provides access for those wishing to canoe, fish, or just enjoy the Cahaba River for the day. For example, Southeastern Outings offers group guided trail hikes and exploring ventures along the Cahaba River each month, attracting 15 to 30 participants. Other park amenities include several pavilions with restrooms that are open to the public for use by families seeking a picnic area, local schools seeking an outdoor education area, or anyone who may need a changing area during a trip to experience the park.

Shelby County constructed these pavilions as a model of sustainability. Instead of using city water or electricity, only collected rainwater and solar panels are necessary to run these utilities. Trail improvements are ongoing as Shelby County and the State Lands Division are currently partnering to develop additional bike trails and create a short canoe trail with drop-off and pick-up locations within the park. The County Tourism Department reports the popularity and impact of park activities created a domino effect as surrounding areas, such as the City of Montevallo, are also developing trail systems.

Looking to the future, State Lands is coordinating with the Shoals Mountain Bike Club to develop new multi-use trails and improve existing trails to multi-use status at the Shoal Creek Nature Preserve in Florence, Alabama. Additionally, the City of Springville is developing more than 4 miles of multi-use trails on the newly purchased Big Canoe Creek tract in St. Clair County.

Through the support of Forever Wild, the State Lands Division will continue identifying opportunities to foster partnerships, leverage funding, and utilize site-specific conservation practices to expand public recreation opportunities and provide a positive economic impact to local communities. ■





STATE PARKS

The **State Parks Division** administers 21 state parks encompassing approximately 45,300 acres of land and water in Alabama. The parks range from Gulf Coast beaches to Appalachian mountains and provide opportunities and facilities from basic day-use activities to resort convention lodging, restaurants, and golfing areas.

The mission of the Division is to acquire and preserve natural areas; to develop, furnish, operate, and maintain recreational facilities; and to extend the public's knowledge of the state's natural environment.

The Division's goals are to manage and operate the Alabama State Parks system in an economically sound and efficient manner on the most self-sustaining basis possible; to provide and maintain high-quality facilities and services to meet the needs of visitors; to provide an opportunity for personal growth and development of individuals through outdoor experiences; to promote use of state parks facilities; to preserve the unique natural features and integrity of state parks for future generations; and to promote good will and enhance the public image of Alabama and the Alabama State Parks through dedicated, courteous employees.

Accomplishments

Alabama's 21 state parks serve about 5 million guests annually. Additional significant accomplishments were made in improving purchasing procedures, computer systems, operation and maintenance policies, financial management analysis, advertising and marketing, natural resource management, and the continuous coordination, supervision and implementation of a comprehensive, statewide state parks renovations program.

Facilities and Personnel

Among the 21 parks, 17 are maintained with an internal park staff determined by size, development, and operation of each area. The total number of employees for all parks varies from approximately 700 during peak season to approximately 500 during the off-season. Four parks are staffed and operated through management agreements with local governments or concessionaires. The State Parks Division central office in Montgomery

includes five sections: Management Analysis, Operations, Natural Resources, Promotions, and Administrative. It operates with 13 full-time staff members.

MANAGEMENT ANALYSIS SECTION

The Management Analysis Section provides general administrative direction and coordination for management control, administrative cost analysis, performance reporting, data processing, general accounting, budgeting, payables, receivables, and purchasing.

Accomplishments

Section personnel received, processed, and analyzed 2,184 performance reports for all state parks; prepared Park System Performance Reports as required by the Budget Management Act; received, processed, and analyzed operations plans, budget reports, and related reports; prepared Park System Operation Plans and fiscal year budgets; processed approximately \$45,083,000 in receipts and approximately 15,000 payment; and disbursed approximately 14,830 payments to vendors and approximately 14,668 payroll checks through and from the State Accounting System.

Section staff also continuously monitored data-processing output, distributed it to statewide park cost centers, and monitored managerial audits as well as personnel actual versus budget for each state park. Management Analysis continues to work with the State of Alabama Accounting and Resource System and to develop detailed monthly financial statements of the State Parks system as well as specific operations. Management Analysis continues to revise resale inventory procedures to promote better accountability.

OPERATIONS SECTION

The Operations Section supervises five district supervisors for 21 state parks and multiple lodges throughout the state. The Section is divided into North and South regions. The North Region consists of the Northeast, Northwest, and Central districts. The South Region consists of the Southeast, and Southwest districts and the Montgomery office staff. The Montgomery Operations office has two full-time employees. The North and South regions are managed by two Operations Supervisors.

This Section manages daily park operations, maintenance program, law enforcement, property and automobile insurance programs, property inventory, fee waiver requests from nonprofit organizations, and Board of Adjustment claims. It also processes all personnel actions for approximately 600 hourly and merit employees as well as accident, incident, and arrest reports coming in from the parks.

North Region

- At Cheaha campground, replacing gates and picnic tables; roofed cabins, chalets, and hotel; renovated chalets with new paint, furniture, appliances, and linens; installed RFID locks on hotel, cabins, and chalets; installed gas fireplace inserts and larger TVs in CCC cabins; installed playground utilizing a grant.
- At Joe Wheeler made repairs to lodge entrance; repaired underground culvert that had rusted out; close to completing an 8-mile trail.
- At Lake Guntersville made repairs to Convention Center; poured concrete at 10 campsites and installed 50-amp services at Lake Guntersville campground; replaced and/or repaired many beams at entrance and walkways; completed ADA trail to overlook trail at Lake Guntersville with grant.
- Painted Guntersville and Joe Wheeler lodges.
- Made substantial progress on an off-highway vehicle (OHV) trail and campground renovation at Buck's Pocket.
- Roofed numerous buildings at Oak Mountain.
- Finished replacing porches at DeSoto hotel.
- Installed new lighting in cave and virtual reality cave in lobby at Rickwood Caverns using grant.
- Performed first project with Alabama State Parks Foundation at Lake Lurleen State Park including a new trail; roofing office complex, and installing 50-amp services to some campsites.
- Finished zip lines at DeSoto and Wind Creek.
- Instituted field training officer program for law enforcement officers. Acquired Simunition Rifles, pistols, and ammunition for live training.
- Consolidated employee uniform policy; created online spreadsheet for statewide use.



South Region

- At Blue Springs replaced roofs bathhouses and picnic pavilion; installed split-rail fence around the lake; replaced fire rings and grills in the campground and picnic area.
- At Chewacla renovated cabins and staff housing; replaced HVAC units, windows, and appliances; added insulation to cabins.
- At Frank Jackson replaced roofing on bathhouse and picnic pavilion; replaced cabin furniture and increased the deck on back side of cabins.
- At Lakepoint replaced siding on welcome center; replaced picnic pavilion roofs; new LED sign at the entrance of park; renovated one fisherman cabin for staff use; replaced projectors, lectern, and wireless communication for group meetings.
- At Meaher constructed handicapped ramps for new cabins; replaced decking on the fishing pier.
- At Gulf installed a pool heater; parking pay stations (kiosks) at the beach pavilion, revenue at the park has increased 25% since operation began.

Future Issues

The Section continues to deal with lake siltation at numerous parks, the addition of fish habitat structure, expanding the environmental education program, constructing much-needed nature centers, and controlling populations of invasive plant species with herbicide.

NATURAL RESOURCES SECTION

The Natural Resources Section was created in 1982 to help the parks enhance the aesthetic, biological, historic, and recreational aspects of their land and water resources and to increase the public's understanding, and enjoyment of those resources. The Section currently includes the Natural Resource Planner at Montgomery and six Interpretive Naturalists in field locations at DeSoto, Gulf, Lake Guntersville, Cheaha, Oak Mountain, and Cathedral Caverns state parks. These personnel use the latest science and technology to assist the parks with diverse natural resource, recreation and environmental education objectives each year. This Section also administers and coordinates grants for natural resource improvement projects.

Accomplishments

- Gulf State Park conducted prescribed fire on 220 acres within the campground and the lakeside cabin unit around the eagle's nest, also known as Eagle Loop. Benefits of these fires are reduction of fuel around the campground to lessen wildfire risk, enhancing wildlife habitat by refreshing food and cover sources, control of brush thickets, and keeping the forests open for better visibility and air flow for visitors.

- Continued to facilitate the restoration of the existing long-leaf/loblolly pine ecosystem by using prescribed fire at Lakepoint State Park. The lack of prescribed fire in recent history has allowed for a thick understory of competing vegetation, a lack of native grasses, and suppression of natural regeneration from pine seedlings. The 134 acres of prescribed fire benefits include reducing the density of the young sweetgums, which allows increase in sunlight and encourages growth of native grasses. Improvements in the wildlife habitat will also provide new growth that is more nutritious to wildlife and a reduction of the fuel load, thereby reducing the risk of wildfire.
- Continued to facilitate a robust Integrated Pest Management Plan at Meaher State Park to reduce and control the invasive Argentine ant population, which was impairing guests' enjoyment of the park. The plan has been successful in allowing park personnel to keep the Argentine ant population under control and restoring guests' enjoyment of the park.
- Assisted with the continued use of herbicides for invasive and undesirable vegetation control within parks. This management tool was used at several parks including Gulf, Wind Creek, Frank Jackson, DeSoto, and Oak Mountain in 2018.
- Assisted with land encroachment, boundary line disputes/ discrepancies and conflicts. Accordingly, the Section continues to upgrade Alabama State Parks' deed files to maintain verified boundaries.
- Continued to work with academia to issue formal permits for those individuals wishing to conduct research or collect scientific data within a state park.
- Continued to implement the Natural Resource Management Plan for Gulf Highlands Addition to Gulf State Park. The Natural Resource Management Plan was a vital task to fulfill the NFWF-AL Gulf Environmental Benefit Fund grant.
- Educated many park guests through in-house recreational activities, interpretive environmental education programs, and other special events throughout the year. They also provide a variety of public outreach programs and produce articles for publication outside of the parks. Program and publicity topics include plant and animal identification, habitat needs and management, air and water quality, and other environmental topics.
- Contributed greatly to new trail construction, maintenance of existing trails, and upgrading trail maps. Contributed to a relatively new public relations initiative, coordinating programs and events to include on Department/Division social media sites within the department/division for public viewing.
- Assisted in Wildlife and Freshwater Fisheries Division regional fishing day events, deer population reduction hunts at Oak Mountain State Park, and Adult Mentored Hunting Program events at Oak Mountain State Park. Participated in meetings of the Alabama Birding Trails Advisory Committee.



DAVID RAINER

- Attended the Prescribed Fire Council Annual Meeting for wildland and urban interface fire control, involving Parks personnel statewide to maintain Burn Manager status.
- Continued participation in the Forever Wild land acquisition program, which resulted in the procurement of acreage for Lake Guntersville State Park and Monte Sano State Park.
- Facilitated Parks field staff attending Prescribed Fire Certification classes to become Burn Managers. Eight new Certified Burn Managers were added to facilitate a more robust fire program across the Parks System.
- Facilitated annual training for current park naturalists. This past year all naturalists were trained in the HETAP (High Efficiency Trail Assessment Process). HETAP are inventory processes that provide objective information about trail conditions (e.g., grade, cross slope, width). Land managers can then use this information to enhance the safety and enjoyment for all trail users (by providing accurate, objective information about trail conditions), monitor environmental impacts on the trail, prepare budgets, develop maintenance and construction plans, identify potential access barriers, and satisfy the self-evaluation requirement for preparing a transition plan for outdoor recreation facilities.

The Natural Resources Section implemented several projects at Lakepoint Resort State Park:

- Planning a site for a future archery park and the continuation of developing new birding programs, an OHV trail, and a motorized nature trail.
- Prescribed burn planning of all land within the campground, golf course, and other adjacent park property.
- Facilitated application for an AmeriCorps-NCCC Team to perform facility renovations in the day-use area. AmeriCorps-NCCC is a network of national service programs formed from three primary programs that each take a different approach to improving lives and fostering civic engagement. Members commit their time to address critical community needs like increasing academic achievement, mentoring youth, fighting poverty, sustaining national parks, preparing for disasters, and more.

Future Issues

The Section continues to deal with lake siltation at numerous parks, the addition of fish habitat structure, expanding the environmental education program, constructing much-needed nature centers, and controlling populations of invasive plant species with herbicide.

PROMOTIONS SECTION

The Alabama State Parks Promotions Section coordinates the advertising, marketing, and promotional efforts of the Alabama State Parks System. The section currently employs three people in the Montgomery office: 1) Advertising and Marketing Manager 2) Marketing Specialist 3) Administrative Support Assistant II.

Administrative functions include coordinating radio and television public service announcements; preparing and distributing of promotional literature; coordinating print and photographic material for magazines, campground directories and newspaper articles; coordinating with the Alabama Tourism Department, chambers of commerce, convention and visitors bureaus, Alabama Department of Transportation (ALDOT) rest areas, tourist associations, and special events promoters; evaluating advertising opportunities; purchasing advertising space; producing ads and advertising materials; assisting with individual State Parks promotional efforts; working special events and various promotional exhibit expos; presenting to various organizations; performing social media marketing, website management, and promotion; digital mobile-ready marketing; developing promotional park videos.

Accomplishments

- Placed advertisements in statewide magazines including Business Alabama and Alabama Advantage. Continued advertising in the Alabama Press Association Directory, which goes out to all Alabama newspapers, top ad agencies, public relations firms in the state, and legislative and Congressional office personnel. This puts Alabama State Parks in front of 500-plus media outlets in Alabama.
- Completed a comprehensive upgrade to our website and released the new version of www.alapark.com in June. It received several website awards for its content and functionality.
- Continued using our social media accounts (Facebook, Twitter, Instagram, and YouTube) throughout the year to enhance the image of the parks and promote events and activities.
- Continued to update and maintain our inventory of printed material for individual state parks. Currently, 13 parks have individual brochures and we are working toward updating and creating brochures for all 21 parks that will have consistent branding components.
- Recently completed a two-year video project that produced 62 videos highlighting the activities and attractions available at some State Parks. These can be accessed on our website and the Outdoor Alabama channel on YouTube. They effectively utilize technology to promote the Parks system. The parks highlighted include Cathedral Caverns, Cheaha, Chewacla, DeSoto, Frank Jackson, Gulf, Joe Wheeler, Lake Guntersville, Lakepoint, Monte Sano, Oak Mountain, Rickwood, and Wind Creek.
- Continued to partner with the Alabama Tourism Department. Together, we promoted tourism in Alabama and our state parks as vacation destinations by distributing printed brochures at welcome centers throughout the state. We also partnered with the Alabama Department of Transportation by providing brochures about the State Parks for distribution at all Alabama rest areas.
- Continued to promote the Dirt Pass Trail Crew Program to generate volunteer involvement in and maintenance of our trail system. Members pay a \$35 annual fee and receive a t-shirt and wristband as a membership gift. The program was established because we realized not all trail users can volunteer time; some would rather donate money. All money from this promotion goes back into the State Parks System to support our trails program.
- The "Parks for Patriots" program continued to be a success, drawing veterans and active military to our parks throughout the year. This program honors the men and women who have served our country by allowing them free admission to the parks that charge an entrance fee or day-use fees. The program was direct-marketed via social media on July 4th, Memorial Day, Veterans Day, and other holidays. We also encouraged park guests to sponsor a veteran by donating at park gates or at any point-of-sale location.
- Continued to advocate the "Partners Pay the Way" campaign, which raises awareness of the many individuals, user groups, civic partners, and elected officials we depend on for donations and funding for Alabama State Parks.
- Distributed the State Parks e-newsletter to more than 315,000 subscribers each month.
- Distributed the "Weekly Report to the Director" through the Promotions Office, keeping park staff and managers apprised of special events, promotional packages, and other related activities at each park.
- Evaluated and reviewed the Alabama State Parks smart phone app, and determined the app needs to be updated with better online tools for guests visiting the parks and improved mapping resources.
- Continued to promote the Alabama State Parks car tag and boat registration decal. The Parks staff uses promotional plates and rack cards to help promote these car tags and boat decals. Approximately 80% of the revenue from these items goes directly to the State Parks.
- TripAdvisor awarded Alabama State Parks 18 awards. The Promotions Section received, and reviewed comments submitted to TripAdvisor by guests and used that information to work with the State Parks to make improvements to their products and services.

- Worked with Rickwood Caverns to add billboard advertising for Santa's Underground Workshop and saw attendance increase by more than 15%.
- Promoted concessionaire partnerships in the parks. The most popular concessionaire services continue to be cabin rentals, zip line activities, kayak and boat rentals, equestrian facilities, and cable skiing.
- Promoted capital improvement projects to make the public aware of these improvements, which were made possible by a constitutional amendment passed in 2016.

Future Issues

We would like to see greater use of the conference rooms and meeting facilities at our state parks. This will be addressed next year with an aggressive sales plan to contact businesses and other organizations in the state to encourage them to bring their annual meetings, training events, and corporate retreats to the State Parks. We will also continue to work with individual parks to promote and enhance their successful programs in order to increase attendance and build brand loyalty.

STATE PARKS 2019 BUDGET AND EXPENDITURES

Section Name	Budgeted	Expenditures
Park Operations	\$39,825,188	\$38,205,127
Administrative Transfer	\$2,950,000	\$2,708,773
Parks Fund Repairs and Maintenance	\$2,197,500	\$2,183,495
Parks Fund Capital Outlay	\$8,952,417	\$2,300,222
Total	\$53,925,105	\$45,397,618



BILLY POPE



PARTNERING FOR A BETTER PARK SYSTEM

The Alabama State Parks system benefits from several forms of partnering to provide park patrons with more services and improved recreational opportunities. These partners typically come in three forms: formal business partners, formal supporting organizations, and volunteers.

State park systems like Alabama's have historically benefited from a wealth of park volunteers. Volunteerism in the parks remains strong and reflects positively on our state's and nation's can-do spirit. While that form of partnering remains largely unchanged, in the last decade we have seen an increase in the number and types of new business partners, as well as formal supporting organizations. Let's take a look at these supporting partners.

FORMAL BUSINESS PARTNERS

The Alabama State Parks system operates much like a business, whereby park patrons pay entrance fees or fees for camping, lodging, or recreational opportunities like golf, or they may eat in a state park restaurant. Those funds are used to pay for the staff and operational expenses that keep the parks open. That user-pay system means that park patrons basically fund the annual operations of the parks, and this approach has caught the interest of businesses with an affinity to outdoor recreation and hospitality.

Historically, these business partners have been limited to a few small concessionaire type businesses selling food or renting canoes. Today, we see a much broader approach to concession operations. The following are some good examples: zip-line operators at Lake Guntersville, DeSoto, and Wind Creek State Park;

cable-skiing operators at Oak Mountain State Park; food trucks, beach umbrellas, and chairs at Gulf State Park; horse boarding and trail riding at Oak Mountain State Park. Concessionaires also operate some of our facilities like the pier restaurant at Gulf State Park and ice cream parlor at Wind Creek State Park. Roland Cooper State Park, which is actually a U.S. Army Corps of Engineers-owned property that is leased to the Alabama State Parks system, is now entirely operated by a concessionaire.

We are also beginning to see new forms of concessions offered and applied to the park system. A recent example is a company that rents camping equipment online and ships it to the potential customers, so they don't have to buy equipment to have a camping experience in a state park. Concepts like this have become very appealing to some younger generations who don't have the compulsion to buy and own everything they might need to have a new outdoor experience.

Another unique example of a business partner is our reservation system vendor. This company offers sophisticated modern reservation systems that allow park guests to make online reservations from their phone, computer, or other mobile devices 24/7. The technology supporting modern reservation systems changes every year. Relying on an outside vendor with expertise in this area helps better serve state park guests.

FORMAL SUPPORTING ORGANIZATIONS

The greatest expansion in this form of partnering has been the growth in recreational trail clubs and friends groups. Trail clubs have undertaken the effort to work with numerous parks in designing, building, and maintaining new trail systems. This has been especially the case with mountain biking over the last decade, with clubs forming in cities like Huntsville, Tuscaloosa, Birmingham, and Auburn to support new mountain bike trails at Monte Sano, Lake Lurleen, Oak Mountain, and Chewacla state parks, respectively. This sustained effort over the last 10 years has caused a tremendous increase in park visitors and trail use in those settings enhancing entrance gate revenues as well as enhancing overnight business in the parks' campgrounds, cabins, and lodges. Similar patterns emerged with horseback clubs and trails at Oak Mountain, Lake Guntersville, and Wind Creek state parks. A big thank you to the Southern Off-Road Bike Association (SORBA), the Birmingham Urban Mountain Pedalers (BUMP), the Central Alabama Mountain Peddlers (CAMP), the West Alabama Mountain Bike Association (WAMBA), and the Alabama Chapter of the Back Country Horsemen of America (BCHA) for supporting our parks' trails in such a sustainable way!

Another unique trail club example supporting a park has been the Trail Masters at Frank Jackson State Park. Formed initially to build and maintain trails in the park and increase tourism in Opp, Alabama, the Trail Masters later championed a unique seasonal program known as Scarecrows in the Park. Each fall the Trail Masters coordinate with businesses and individuals to develop and sponsor an artistic scarecrow display along the park's trail system. The occasion is a huge attraction bringing hundreds of visitors to the park each October and November and building a stronger sense of community.

Our parks and park system have also been blessed with the support of friends groups. These organizations often form to support a specific park and typically work to raise funds in support of maintenance or improvement projects at that park. This past year we saw the formation of a new foundation with the intended mission of supporting the entire Alabama State Parks system. The Alabama State Parks Foundation is a nonprofit organization recognized by the IRS as a 501(c)(3). The foundation's goal is to raise funds in support of the park system through individual giving, corporate giving, and through gifts associated with personal estate planning. This new partner effort is expected to generate substantial funds over the next decade.

VOLUNTEERS

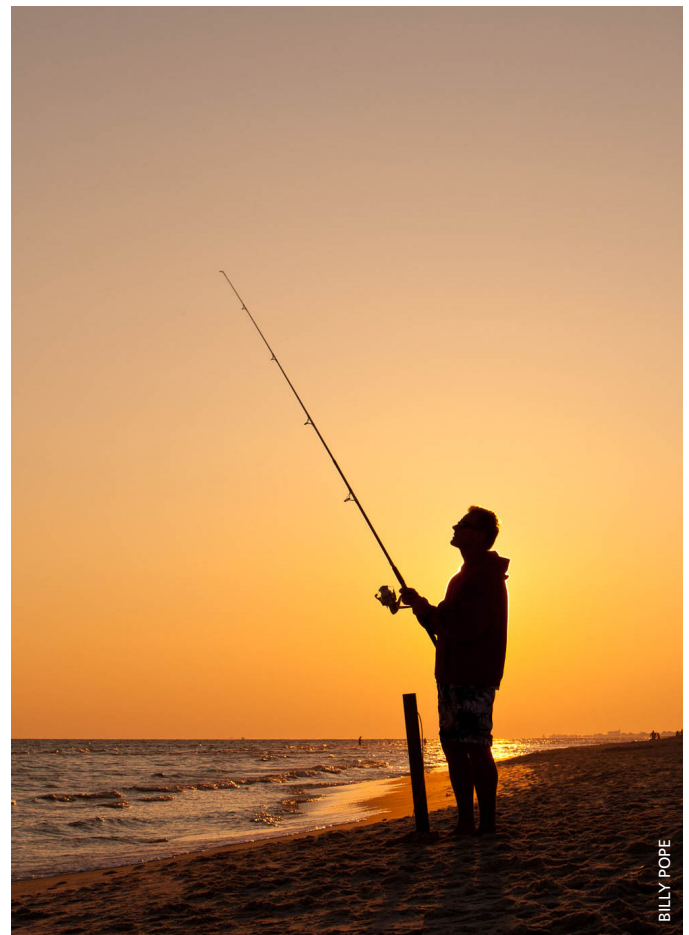
Volunteers in state parks have long been a significant component within our parks' workforce. In recent years volunteers accounted for as much as 25% of the daily activities within the parks. That volunteer effort was typically 20 hours or more of service each week. Volunteer effort varies considerably from one park setting to another.

In urban settings like Monte Sano State Park or Oak Mountain State Park, we routinely see volunteers from the local communi-

ties who come into the parks on a routine basis helping park staff with various programs. These acts of assistance include projects like the maintenance of bluebird boxes, programs within our nature centers, development and maintenance of interpretive programs, as well as facility maintenance. In other parks that don't have large populations nearby, we often benefit from retirees who are traveling and staying in our parks. In these instances, we often have volunteers serving as campground hosts or facility docents. These volunteers help customers with campground setup and offer advice on park amenities and programs.

We have also had the recent benefit of working with a team of AmeriCorps volunteers who provided seven weeks of service at Lakepoint State Park. This crew worked with park staff to restore the exterior siding on a picnic area bathhouse and completed several other projects as well. The park staff were so impressed with their work that we have initiated the process for future crews to work on park projects.

In closing, park partners come in many forms and have varying periods of assistance. The most significant commonality is that all the partnerships seek to make Alabama's State Parks system better. We applaud the many partners our parks have benefited from over the past 80 years and welcome future partners. Whether people or organizations give their time or their money, what matters most is that they care enough to support Alabama's state parks. It's what makes Alabama and America great! ■



BILLY POPE

WILDLIFE AND FRESHWATER FISHERIES



The **Wildlife and Freshwater Fisheries Division**, charged by law with protection, management and enhancement of the state's fish and wildlife resources, is composed of the Administrative, Enforcement, Fisheries, and Wildlife sections. The Division meets these responsibilities by carrying out coordinated, scientifically-sound enforcement, management, research, development, and educational programs designed to ensure protection and enhancement of fish and wildlife populations and habitats for the sustainable benefit of the people of Alabama.

ADMINISTRATIVE SECTION

Wildlife Diversity: State Wildlife Grants and the Landowner Incentive Program are two federal funding sources intended to focus management on declining wildlife species and avoid their eventual listing under the Endangered Species Act. Federal funding to the State Wildlife Grants program in FY19 was \$778,029. These funds are used to support various research and species restoration efforts, including reintroduction of the federally threatened Eastern indigo snake; support of the Alabama Aquatic Biodiversity Center; comprehensive examination of black bear ecology and management in Alabama; aquatic snail survey of Alabama; habitat ecology of the Southeastern pocket gopher; Eastern hellbender surveys; and the implementation of the State Wildlife Action Plan. For FY19, the Landowner Incentive Program received \$115,000 for aquatic habitat restoration on private lands. These federal funds were awarded through the U.S. Fish and Wildlife Service (USFWS), Partners for Fish and Wildlife Program. These programs are administered by one biologist, the Habitat and Species Conservation Coordinator, in the Administrative Section, who works closely with Wildlife Section and Fisheries Section staff. Both programs interact with and engage a broad range of partners, including federal and state agencies, universities, NGOs, and private landowners.

FISHERIES SECTION

Responsibilities and Functions

The Fisheries Section's mission is to protect, conserve and increase the freshwater aquatic resources of Alabama.

Accomplishments

Technical Assistance: District fisheries biologists conducted 217 biological checks of private ponds, providing appropriate solutions to problems in writing. Staff members participated in meetings and conference calls concerning the licensing and relicensing of hydroelectric projects. District biologists investigated 16 reported fish kills and cases of pollution. Formal reports prepared by the investigators were sent to the appropriate agencies.

Environmental Affairs: The Fisheries Section reviewed, investigated, and commented on 181 water-related permits and environmental impact statements with potential adverse impacts to state aquatic resources.

Public Fishing Lakes: 112,135 anglers harvested 143,356 fish weighing 107,463 pounds from 21 of the 23 State-operated Public Fishing Lakes (PFLs). Each angler averaged 1.1 pounds of fish per trip and 1.3 fish per trip. The number of anglers fishing at Alabama's PFLs increased approximately 4% from FY19.

Fisheries biologists and support personnel made 475 visits to PFLs to evaluate the condition of fish populations and to conduct various operational and maintenance activities. The Carbon Hill, Eastaboga, and Marion Fish Hatcheries stocked 1,669,486 fish into Alabama's PFLs. This included forage fish stockings by district staff. Species stocked include bluegill sunfish, channel catfish, hybrid striped bass, redear sunfish, and threadfin shad. Additionally, 4,000 pounds of rainbow trout were stocked into Madison County and Walker County PFLs for a winter fishery.

To enhance fishing and low permit sales, Washington County PFL was drained and restocked in FY19. Fayette County PFL reopened in the spring of 2019 without an onsite lake manager and 2,668 fishing permits were purchased by anglers online or through a



HARRY DEAN

WILDLIFE AND FRESHWATER FISHERIES BUDGET AND EXPENDITURES

Section	Budgeted Amount*	Expenditures
Admin	\$1,539,914	\$1,004,406
Law Enforcement	\$13,931,862	\$12,879,284
Fisheries	\$9,256,279	\$8,654,270
Wildlife	\$21,912,844	\$15,242,354
Wildlife Diversity	\$1,000,000	\$682,501
Transferred to Department Administrative Expenses	\$4,400,000	\$3,399,246
TOTAL	\$52,040,899	\$41,862,061

* The budget figures on this report reflect the approved spending authority for the Wildlife and Freshwater Fisheries Division. They are not a representation of the available cash.

Funding includes Federal Aid in Wildlife and Sport Fish Restoration monies apportioned to Alabama based on the state's geographical size and hunting and fishing license sales.

Capital outlay expenditures were significantly less than originally budgeted.

WILDLIFE AND FRESHWATER FISHERIES DIVISION STAFFING

	FILLED	VACANT**
FULL TIME POSITIONS	300	33
PART TIME POSITIONS	22	8

** Vacancy count is based on the 2019 operations plan.

license agent. Major repairs to the spillway and dam at Barbour County PFL were completed in FY19. Additionally, Lower Clay County PFL was reopened to the public.

Access Areas: During the year, Fisheries Section personnel conducted routine maintenance and inspection visits of 114 access areas, including 142 boat ramps with 182 launch lanes, 117 courtesy piers, and parking for 3,837.

While many people understand the work involved in building such recreational amenities, not as many understand the hours needed to keep these boating facilities and amenities functioning properly. These access areas are very labor-intensive, requiring that staff work every day to repair and replace broken or worn elements, with jobs like pouring concrete, striping parking lots, and rebuilding wooden structures like piers. Every day staff need to complete maintenance tasks like clearing debris, cutting tree limbs, and resealing wood. They also work hard to stay ahead of the weeds that can quickly overwhelm these outdoor areas. The equipment used to perform these jobs requires continual maintenance as well.

In addition to such maintenance needs, staff completed ADA, maintenance, and general construction inspections at 123 access areas statewide, and they put in many hours to complete the paperwork needed for all these tasks, renewing, executing, and recording new lease and maintenance agreements as needed for all facilities statewide.

A few access areas needed extra attention in FY 2019: A major repair to the launching slab at McIntosh Bluff (Washington County) began. Tornado debris was removed from Wetumpka Public Boat Ramp (Elmore County). A pier, bulkhead, and gangway were replaced at Elk River Mills (Limestone County).

Of additional note for FY 2019, responsibility for Elba Public Boat Ramp (Coffee County) was returned to the Town of Elba and the process to return Riverview (Tuscaloosa County) to the City of Tuscaloosa was initiated.

Various surveys were completed to accomplish program goals and adhere to grant/permit requirements at 12 access areas. Four potential boating access site inspections were completed statewide. Fisheries personnel participated in meetings and conference calls related to ongoing construction, potential construction, and project planning for ongoing projects statewide. Staff met with various government agencies and NGOs to discuss potential development of new projects and attended five pre-construction, pre-bid, and bid opening meetings for access area projects. Fisheries personnel executed and recorded construction agreements and obtained permits and concurrences as required to meet program goals. Construction plans for various ongoing and future projects were drafted and edited, as needed. ADCNR took over the Portland Landing Access Area located in Dallas County.

Renovations at Lay Dam (Chilton County) were completed, bringing it into ADA compliance. Piers were installed and ADA renovations completed at Barnett boat ramp (Lauderdale County) and Cordova (Walker County). A major parking lot expansion at Beeswax Creek (Shelby County) was completed. Fisheries staff initiated construction of a launching slab expansion at Triana (Madison County) and continued construction of a major facility expansion at Smith Lake Park (Cullman County). A parking lot expansion was completed at Claysville (Marshall County) and planning for subsequent expansion continued. Planning of a major expansion at Smith Lake Dam (Walker County) continued.

Fisheries personnel maintained a boating access inventory database, continued to work with ADCNR's Legal Section to develop language for agreements that adhere to state and federal laws and regulations, continued production of an educational video on boating access construction, maintained the boating access administrative webpage and completed tasks related to boating access grants including but not limited to interim/final reports, grant amendments, grant proposals, and project in-kind service documentation. Fisheries personnel attended the State Organization for Boating Access (SOBA) annual meeting where boating access presentations were given. Fisheries staff also continued working with ADCNR Law Enforcement to resolve issues with non-permitted commercial use by barges at access areas statewide.

Fisheries Habitat: With cooperation and assistance from multiple parties including private individuals, state and federal agencies, corporations, utility companies, and various conservation groups, the habitat enhancement program installed 458 fish-attracting devices (FADs) made from artificial materials at 41 sites on 13 public reservoirs. Of the 41 sites, five were located near

public fishing piers. Five "fish attractor" buoys were installed on four reservoirs to assist anglers in locating FADs. On five reservoirs (Harris, Logan Martin, Martin, Neely Henry and Weiss), 1,115 shoreline trees were felled into the water to increase cover for fishes in littoral zones. On three reservoirs (Mitchell, Jordan and Jones Bluff), 343 brush piles made from discarded Christmas trees were installed. Habitat improvements in the form of established native aquatic vegetation took place on West Point Lake with cooperation from GADNR, USACE, the Chattahoochee River Conservancy and local bass club volunteers. Approximately one acre of water willow (*Justicia americana*) was planted into multiple coves to establish founder colonies. Monitoring of habitat enhancement activities via underwater camera surveys, electrofishing and/or sonar surveys continued. GPS coordinates of habitat enhancement locations are recorded and maintained for public access on the Department's interactive map. Downloadable files are also accessible at outdooralabama.com/fishattractors.

Fish Hatcheries: FY 2019 fish production goals were met or exceeded for black bass species, channel catfish, striped bass, hybrid striped bass, and bluegill and redear sunfish. The Fisheries Section stocked these and other fish species into public waters statewide including into public fishing lakes, for a total of 2,759,103 fish. This information is provided in Table 1.

Public Water Fish Stockings by Permit Holders: Nine permits for stocking fish in public waters were issued to individuals representing agencies and organizations. A list of the fish species and sites stocked by permit holders is provided in Table 2.

Presentations: Fisheries Section biologists attended public meetings and workshops on fisheries resource topics around the state and nation. In addition to the aquatic education efforts shown below, biologists made 23 presentations to 799 participants.

Publications: Fisheries Section staff prepared three peer-reviewed scientific journal articles for publication. Biologists also wrote an article titled "The Need for a Live Wild Baitfish Regulation" for the Alabama Hunting and Fishing Digest. Other staff members reviewed, and edited articles written by others and photographs were supplied for articles.

Fisheries Research: Through the Investigation and Management Techniques for Public Waters Project (Sport Fish Restoration F-40), two ongoing contractual studies continued with investigators from the Auburn University School of Fisheries, Aquaculture, and Aquatic Sciences (AU-SFAAS): "Assessing Reservoir Creel Survey Methods for Alabama," and "Investigation of the Trout Fishery in the Sipsey Fork Below Lewis Smith Lake."

Three new contractual studies were initiated in FY 2019 with AU-SFAAS. These studies included: "2018 Alabama Freshwater Angler Survey", "Exploring the Use of Hard Part Microchemistry to Evaluate Fish Movement Among Areas in the Harris Dam Tailrace", and "BAIT Program Genetic Assessment." One new study was initiated with the University of West Alabama's Department of Biological and Environmental Sciences. "Status Survey of Southern Walleye."

TABLE 1:**FISH STOCKED DURING FY 2019 INTO ALABAMA PUBLIC WATERS THROUGH THE FISHERIES SECTION'S PROGRAMS**

Species	Inch Group	Number
Largemouth Bass - Florida	2-11	270,442
Striped Bass - Gulf Race	1	373,085
Hybrid Striped Bass	1-2	328,080
Channel Catfish	3-14	149,516
Bluegill Sunfish	1-6	1,280,440
Redear Sunfish	1-2	226,640
Black Crappie	2-4	14,000
Southern Walleye	1	83,300
Rainbow Trout	6-20	33,600
Total		2,759,103

TABLE 2:**FISH STOCKED BY PERMIT HOLDERS INTO ALABAMA PUBLIC WATERS DURING FY 2019**

Species	Location	Number or Weight
Channel Catfish	Blue Eye Creek	500 lbs.
Channel Catfish	Lake Guntersville	300 lbs.
Channel Catfish	Moragne Pond (Coosa River)	1,000 lbs.
Rainbow Trout	Mill & Mud Creeks	600 lbs.
Coppernose Bluegill	Black Creek	1,000
Grass Carp	Walter Bouldin Reservoir	8,000
Channel Catfish	R. L. Harris Lake	500
Largemouth Bass	Lake Guntersville	5,000
Mosquitofish	Baldwin County drainages	Not Specified

Two additional studies were funded through contractual agreements with other grants. Both with AU-SFAAS. These studies were titled “Culture and Preferences of Alabama Anglers” and “Distribution, Status, and Genetics of Stream Dwelling Black Bass in Alabama.”

Reservoir Management: Largemouth bass, spotted bass, black crappie, white crappie, bluegill, redear sunfish, threadfin shad, gizzard, and shad populations were sampled by several methods such as electrofishing, trap netting, gill netting, prod pole, seining, and/or trawling in the following water bodies: Wilson, Upper Bear, Guntersville, Weiss, Neely Henry, Lay, Mitchell, Yates, Tuscaloosa, Smith, Mobile Delta, Claiborne, Lake LU (University of West Alabama), Duck River, Eufaula, Big Creek, Thurlow, and West Point. Collected specimens were measured and weighed, and many were aged to determine growth rate. Thermal and oxygen profiles were collected from most of the previously mentioned reservoirs. Surveys were completed on some reservoirs where standardized sampling was performed. The results are incorporated into reservoir management reports. Relative values of angler harvest, effort, and pressure were collected by creel surveys on selected reservoirs.

General Surveys: General surveys were completed at Flint Creek, Big Escambia Creek, Neely Henry, and Elk River. Sampling for Asian carp was conducted in Wheeler Reservoir. Blackwater Creek, Sipsey River, and Mulberry Fork were sampled to determine the abundance of Southern walleye. Vegetation surveys were completed at Demopolis and Neely Henry. Movements of rainbow trout in the Sipsey River were monitored. Genetic samples were obtained from largemouth bass at Lake Jordan. A biological study was conducted in Bogue Chitto Creek.

Endangered Species (Section 6) Aquatic Studies: Through the Cooperative Endangered Species Conservation Fund (Traditional Section 6 of the Endangered Species Act), the following studies were conducted: Recruitment of Juvenile Gulf Sturgeon in the Choctawhatchee River; Assessment of Spawning Races of Gulf Sturgeon in the Choctawhatchee River; Metabarcoding Genetics of Alabama Sturgeon; Status of Snail Darter and Coal Darter; Stream Bed Assessment for Alabama Pearlscale; Effects of Mussel Filtration on eDNA Detection.

Aquatic Education Program: The Fisheries Section, with assistance from other sections of the Wildlife and Freshwater Fisheries Division, conducted 35 fishing events, reaching more than 6,017 participants plus their families and volunteers. Staff conducted fishing classes for various audiences (mostly youth) during 201 sessions that reached 4,858 participants. 106 casting classes were taught for 5,830 participants, and presented 89 talks about Alabama's aquatic resources to a total audience of 2,745. Additional information was presented to the public through displays for 21 events. Staff made 6 presentations to 54 instructors of various types about casting, fishing, and/or aquatic education.

Freshwater Mollusk Management and Research: A total of 86 biological field trips, sampling streams statewide, were made during this fiscal year for general and specialized surveys of mussel and snail populations and to locate brood stock sources for

use at the Alabama Aquatic Biodiversity Center. Assistance and consultation regarding mollusk issues were provided to the U.S. Fish and Wildlife Service, Tennessee Valley Authority, SEAFWA, PowerSouth, and the University of Alabama.

River and Stream Fishes Program: Staff conducted 158 biological trips with the River and Stream Fisheries (RSF) Program. Acoustic receivers were monitored above and below Guntersville Lock and Dam to detect any upriver passage of tagged silver carp in the Tennessee River. No silver carp passage was evident to date.

Collection continued for the imperiled Southern walleye in Hatchet Creek (Lake Mitchell) to establish a broodstock; 14 fish were collected. Unfortunately, 10 fish died at the hatchery; however, we were able to implant transmitters in the four remaining fish and are currently tracking their movements and habitat preferences. Sampling continued for shoal bass and other stream black basses as a statewide project to determine their conservation status in Alabama. The Stream Fish Assessment Project continued with 21 sites sampled in five watershed management districts. Stream fish samples continue to be processed along with development of a stream fish database. The Tombigbee River was sampled as part of our non-wadable river assessment project. As part of a cooperative project among Gulf states, American eel continued to be collected to assess the species status in Alabama. We continued to collect bowfin as part of other sampling activities to gather basic biological data as this species is becoming more important in the caviar industry. Staff reviewed 295 general and 96 state-protected scientific collection aquatic permit applications as well as 84 scientific collection aquatic permits.

Alabama Aquatic Biodiversity Center: The Alabama Aquatic Biodiversity Center (AABC) assisted numerous research and monitoring efforts in FY 2019. The unit assisted research projects with the USFWS (3), University of Alabama (1), and Auburn University (2), and completed a published research project with the USFWS and Auburn University (1). The AABC also provided animals for various projects at the University of Minnesota, Baylor University, the U.S. Geological Survey (USGS), Caribbean-Florida Science Center, and the Kentucky Department of Fish and Wildlife. The AABC also completed monitoring of multiple reintroduction and conservation targets throughout Alabama. The AABC stocked 3,151 individuals of eight different freshwater mussels into six different drainages in FY 2019 (Table 3). AABC staff completed 77 biological trips in support of aquatic species research and recovery activities statewide. AABC staff provided frequent technical assistance to other state and federal agencies as well as NGOs. AABC staff participated in 32 technical meetings across the state and was involved in 16 outreach activities with other government agencies, academic institutions, and NGOs. AABC staff did not conduct any mollusk kill investigations in FY 2019.

Future Issues

Public Fishing Lakes (PFLs): Contracting of qualified lake managers at rural lakes, low participation at rural lakes and aging facilities (i.e., dams, concession buildings, and residences) present challenges. Alternative management options are being evaluated

TABLE 3:
FRESHWATER MOLLUSK STOCKING ACTIVITIES BY AABC STAFF IN FY 2019

Species	Locality	Date of Release	Number Stocked
<i>Medionidus conradicus</i>	Bear Creek, Rock Creek	8/13/2019	84
<i>Villosa nebulosa</i>	Little River	8/16/2019	105
<i>Pseudontioideus connasaugaensis</i>	Little River	8/16/2019	24
<i>Toxolasma cylindrellus</i>	Paint Rock River	8/20/2019	463
<i>Toxolasma cylindrellus</i>	Paint Rock River	8/20/2019	463
<i>Lampsilis virescens</i>	Paint Rock	8/20/2019	440
<i>Lampsilis virescens</i>	Paint Rock (Butler Mill)	8/20/2019	440
<i>Lampsilis virescens</i>	Shoal Creek (TN site 2 state line)	8/28/2019	75
<i>Lampsilis virescens</i>	Shoal Creek (AL site 4)	8/28/2019	75
<i>Toxolasma cylindrellus</i>	Duck River	9/5/2019	461
<i>Epioblasma penita</i>	Cahaba River	9/5/2019	21
<i>Epioblasma capsaeformis</i>	Paint Rock River	9/12/2019	200
<i>Venustaconcha trabilis</i>	Paint Rock River	9/12/2019	300
TOTALS:			3,151



PHOTO BY: WARREN PETER PAULEY, JR.

at low angler use PFLs. Fayette County PFL reopened in FY19 without an onsite lake manager. A private contractor performed grounds maintenance. Anglers were required to purchase an annual or daily Fayette County PFL fishing permit online or through a license agent. Anglers purchased 2,668 daily and annual fishing permits for Fayette County PFL, indicating the operation of a PFL without an onsite lake manager as viable.

Riverine Habitat: Because the loss of riverine habitat in Alabama has resulted in the decline or loss of certain riverine fishes, efforts continue to document habitat loss and provide suitable riverine habitat where possible. Completing the development of a statewide comprehensive water plan that emphasizes instream flow protection to protect aquatic wildlife and habitats will be very beneficial.

Aquatic Nuisance Species (ANS): ANS pose a significant problem to the State of Alabama. These are species introduced outside of their native ranges that can grow in or are closely associated with aquatic environments. They pose a direct threat to recreational and commercial fishing resources and can have significant negative impacts to local economies that are dependent on aquatic recreational activities. Currently, funding to address this problem is limited. The expansion of the silver carp population that is now moving upstream in the Tennessee River from the Mississippi and Ohio Rivers is the most immediate threat to Alabama waters. Presently, WFF is cooperating with the state fisheries agencies of Tennessee, Mississippi, and Kentucky, as well as the USFWS and the USGS, to monitor silver carp expansion in the Tennessee River and to seek federal funding to assist with the deterrence and management of this invasive species within the Tennessee River.

Fish Hatcheries: Many production ponds, including drain kettles, water supply lines, drainage lines, and power supply to the ponds need renovating.

Fishing License Sales: The continued trend of stable to decreasing revenue from the sale of fishing licenses remains a concern. The Fisheries Section's efforts to reverse this trend include staff time conducting casting and fishing classes, as well as increased assistance with 4-H programs. Renewed and increased marketing efforts are being conducted to encourage license renewals.

LAW ENFORCEMENT SECTION

The Law Enforcement Section of the Wildlife and Freshwater Fisheries Division (WFF-LE) provides assistance in the protection and management of Alabama's wildlife resources and the safety of the public through a fair and balanced enforcement program.

Accomplishments

A decade of training, writing and editing instructional materials, and preparing to instruct the inaugural Rural Operations training sessions came to fruition in Spring 2019. The Rural Operations Training Program consists of three components: tracking skills, moving as a unit in formations, and wilderness medical skills. These skills are vital for law enforcement and first responders to

respond to lost persons, e.g., children, Alzheimer's or dementia patients, and violators attempting to elude detection in a rural environment.

Five training sessions were held during the month of May. Officers representing the WFF, State Parks, and State Lands divisions as well as a few local sheriff's offices were in attendance. Three of the courses were held at Alabama State Parks facilities. These facilities are set in a unique mixture of wooded and open terrain while providing first-rate housing and dining facilities for instructors and those in attendance. The Law Enforcement Section has partnered with the State Parks Division for several years to accomplish our training location needs. The other training sessions were held on state-owned property in Wilcox County. Housing and meals for those sessions was paid for by the Alabama Conservation Enforcement Officers Association (ACEOA) and provided by Dennis Adams, owner of Cedar Creek Lodge, a family-owned hunting lodge in Dallas County.

WFF-LE staff wrote, edited, and printed student and instructor manuals so that each student was provided with resource materials to take away from the course. ACEOA purchased training firearms in the form of AR-15s produced by MHT Defense, LLC, of Delta, Alabama, and Glock pistols to supplement the Rural Operations sessions with a reality-based element. The Division's law enforcement staff can use these firearms for training for years to come.

The success of this program has been noticed, not only by sheriff's offices in Alabama that have requested this training for their officers, but by other wildlife enforcement agencies throughout the U.S. For example, Law Enforcement staff with the Arkansas Game and Fish Commission have requested the training for their instructors as well. This will most likely occur in late winter of 2020.

Enforcement Action

With efficient communication capabilities historically being an officer safety issue for the Division, the decision was made to contract with the Alabama Forestry Commission (AFC) to enable effective service in this area. Through a memorandum of understanding between ADCNR and AFC, AFC agreed to add dispatching for emergencies and calls related to wildlife to those pertaining to wildfires.

Effective October 1, 2019, the responsibilities for the Enforcement Section's dispatch center and employees were transferred to the Alabama Forestry Commission Communications Unit. The communication coverage statewide was immediately improved. The ability for an officer, regardless of their location, to pick up a radio and actually speak to a dispatcher from any area is vitally important for officer safety, especially considering the long-realized fact that game wardens are almost always far from any assistance, if a need arises. The Division's enforcement personnel now have that ability.

In addition to immediate communication with a dispatcher, a computer-aided dispatch, or CAD system, is utilized to track the

outcomes of complaint calls and maintains an accurate, real-time log of response activities and actions. The result of this move is one of the most improved systems of communications the Division has seen since its inception. The Division's law enforcement staff also received training on proper communication protocols and techniques. This resulted in a seamless transition to the new radio system without causing an undue burden on the dispatchers.

The transition to the new CAD-based dispatch system took only three weeks to prove vitally important. In late October an officer working a night hunting detail was fired on by night hunters on the Mississippi line. Thanks to the new communications system, he was able to contact local law enforcement officers who assisted him in the pursuit. Previously he would have had to depend on unreliable cell phone coverage for his calls for help.

The WFF-LE's Patrol Boat Operations course has been a successful means of assisting other enforcement agencies. This 40-hour course trains officers on safe and efficient handling of vessels as a first responder. Larger municipal and county agencies that have waterways in their jurisdictions have reached out to the Section regarding instruction on operating patrol boats. During the summer months of 2019, in conjunction with training new officers in boat operations, Lee County Sheriff's Office deputies attended the training on Lake Harding. The Montgomery Police Department is scheduled to receive the training in the spring.

As law enforcement officer suicides continue to be higher annually than those officers who lose their lives in the line of duty, Law Enforcement Section leadership felt the need to prepare staff members for either case. Field supervisors and a few selected officers received training from the Law Enforcement Alliance for Peer Support (LEAPS), an Alabama-based support group that provides information focused on peer support for those officers involved in a critical incident. Conservation Enforcement Officers also received training in 2019 related to eWarrant, the online system utilized for obtaining search warrants from the Administrative Office of Courts.

Future Issues

WFF-LE hired eight new officers in late 2019. The Section is working toward its goal of replacing the 13 full-time officers and one part-time officer who were lost due to retirements and other reasons during the year. With many of the Section's officers having been hired in the past five years, the Field Training Officer Program continues to evolve and improve, giving these new officers the best opportunity to have a long, successful career.

An endless challenge for the Enforcement Section continues to be educating enforcement officers as well as the public about Chronic Wasting Disease (CWD) and the importance of keeping it out of Alabama. Captain Michael East, the Section's Captive Wildlife Coordinator, accompanied employees of the Wildlife Section to numerous public meetings focused on educating people about CWD and the Division's efforts to prevent it from reaching Alabama.

The interstate transport of deer species killed in other states and brought back to, or through, Alabama is one likely means of bringing the disease into our state. In an effort to mitigate this, the Enforcement Section has established guidelines for enforcement officers focusing resources on major thoroughfares into the state during holidays and prime weekends for hunters returning with animals harvested in other states. This campaign has proven successful and will continue.

Awards

The Alabama Chapter of the National Wild Turkey Federation presented its Conservation Officer of the Year Award to Senior CEO Jody Yancey of Cherokee County. The Shikar-Safari International Club awarded Senior CEO Jarrod Poole of Lauderdale County with its Officer of the Year Award. The Alabama Wildlife Federation also presented Task Force CEO Joel Glover with its Enforcement Officer of the Year Award. Additionally, Sergeant Jonathon Bartlett of Cullman County received the Officer of the Year Award for Alabama from the Southeastern Association of Fish and Wildlife Agencies. These recognitions were based not only on wildlife law enforcement during the past year but for career accomplishments as well.

WILDLIFE SECTION RESPONSIBILITIES AND FUNCTION

The mission of the Wildlife Section is to manage and enhance the wildlife resources of Alabama for the sustainable benefit of the resource and the people of Alabama.

WILDLIFE SECTION FUNDING

In 1937, legislation for the Federal Aid in Wildlife Restoration Act, sometimes known as the Pittman-Robertson Act, was passed and became law under President Franklin D. Roosevelt. This Act placed a 10% excise tax on arms and ammunition to provide secured funding to states for the sole purpose of funding state wildlife conservation/restoration and hunter education programs. These federal dollars pay up to 75% of approved projects as matching funds under this program with state hunting license dollars completing the remaining 25% of required funding. The U.S. Fish and Wildlife Service disburses these monies to states based on the size of the state and the number of hunting licenses sold. This funding mechanism represents one of the few "user pay" government agency programs that is primarily funded directly and indirectly by its users and participants.

PUBLIC HUNTING OPPORTUNITY PROGRAMS

Wildlife Management Areas: Wildlife Section staff managed more than 775,055 acres within the Wildlife Management Area (WMA) and Special Opportunity Area (SOA) collection. During FY19, Section staff held more than 5,240 managed hunt days on the 34 WMAs and six SOAs managed by the Wildlife Section. The acreage within the WMA/SOA system experienced a 4.6% increase from the FY18 hunting season. The WMAs also provided

opportunities for trapping, fishing, hiking, picnicking, camping, research, and nature study. To support public recreation opportunities on WMA/SOA systems, staff maintained 132 office and operation support buildings, maintained equipment, painted and/or signed 386 miles of property boundaries, maintained 62 campgrounds, maintained boat ramps, and applied aggregate to refurbish 62 miles of WMA public access roads.

Additionally, staff conducted prescribed fire on 25,291 acres of wildlife habitat, maintained 242 miles of fire lane in association with prescribed fire activities, maintained 5,171 acres of wildlife openings and early successional habitat, and performed invasive species control (plant and animal) to enhance habitat for wildlife population persistence and public enjoyment.

Physically Disabled Hunting Areas: The Hunting Trail for People with Physical Disabilities continued to be a well-utilized program. The trail has 20 hunting sites located within 19 of Alabama's 67 Counties. This innovative program provides opportunities for individuals with physical disabilities to participate in hunting in an environment developed to meet their needs.

Youth Hunting Programs: Wildlife Section staff continued efforts supporting our youth hunting program in conducting 28 youth dove hunts. The hunts were offered across the state within 18 of Alabama's 67 counties. The program is a cooperative effort between ADCNR, Auburn University, NGOs such as Ducks Unlimited and NWTF, local vendors, and private landowners. The 2019 youth dove hunts had 802 youth participants with 119, or 14.8%, being first-time hunters. Additionally, 22 WMAs hosted youth deer hunts and 23 WMAs hosted youth turkey hunts the weekend prior to the opening of regular gun seasons.

Land Acquisitions: Wildlife Section staff continued to provide access to new lands by contractual agreements and through fee simple acquisitions through a collaborative effort with Alabama's Forever Wild Program, timber sale revenues, and license revenues, all of which are matched with funds from the Pittman-Robertson Act.

Land Acquisitions for FY 2018-19:

- 618 acres acquired solely by the Wildlife Section in two transactions from The Conservation Fund and added to Barbour WMA (Barbour County)
- Swapped 600 acres in Lauderdale WMA for 392 acres in Freedom Hills WMA (Colbert and Lauderdale counties) to enhance hunter access
- Forever Wild Land Trust (FWLT) acquired 1,048 acres that was added to Barbour WMA (Barbour County)
- FWLT acquired 418 acres in the Mobile-Tensaw Delta and added to the Upper Delta WMA (Baldwin County)
- FWLT swapped 353 acres in Lauderdale for 397.5 acres in Freedom Hills WMA to enhance hunter access (Colbert and Lauderdale counties)
- A partnership between the Wildlife Section and the FWLT was initiated to acquire 4,439 acres of habitat of the imper-

iled Red Hills salamander (Monroe County) through Habitat Conservation Planning Acquisition and Recovery Land Acquisition coupled with Forever Wild funding match

- A partnership between the Wildlife Section and the FWLT started the acquisition of 4,137 acres to add to Cedar Creek and Portland Landing SOAs (Dallas County)

Forest Management Activities: WMA biologists, in coordination with Wildlife Section forestry staff, work to enhance habitats within the WMA system to benefit wildlife year-round. Revenue generated from timber sales on Wildlife Section-owned lands are rolled back into management efforts such as tract reforestation and/or utilized to fund additional land acquisitions. Forestry actions that occurred this fiscal year included:

- At Autauga WMA, 450 acres of recently harvested timber reserve was contracted for longleaf pine restoration. At present, the tracts have been treated with herbicide and burned with planting to be completed this winter.
- At Barbour WMA, contractors have initiated work on the last phase of longleaf pine restoration. Site prep herbicide treatment and ground clearing have been conducted, and burning and planting should be completed this winter. When finalized, this multi-year project will account for approximately 4,000 acres of restored longleaf pine habitat at Barbour. Also, 1,700 additional acres of thinning and final harvest timber sales have been contracted.
- At Geneva State Forest WMA, the 900-acre tree thinning and microchipping project is approaching completion. In addition, a stand treatment contract for 350 acres of yaupon mulching/removal using Competitive State Wildlife Grant (C-SWG) funds has been awarded.
- A 300-acre thinning sale was completed on Freedom Hills WMA, and, on Lauderdale WMA, a 250-acre first timber thinning sale was completed. Approximately 3,000 acres of additional thinning sales have been contracted.
- On Upper State SOA, pine and hardwood reforestation was contracted on a tornado salvage area. Currently, site preparation herbicide and burning is complete, and tree planting is planned for this winter. Additional areas will be evaluated for tree growing operations and treatments during the next fiscal year.
- Final timber harvest and thinning sales are being planned for specific tracts located on Lowndes, Skyline, and Geneva State Forest WMAs, as well as Portland Landing SOA.
- Invasive species, such as cogongrass, tallow tree, Japanese climbing fern, and bicolor lespedeza were scouted and treated on the WMA system. Because cogongrass is aggressive and able to completely displace native vegetation, Wildlife Section staff have been increasingly vigilant in spotting and treating infestations statewide. Scattered areas of the grass have been undergoing treatment on the Fred T. Stimpson and Upper State SOAs, and the Upper Delta, Geneva State

Forest, and Barbour WMAs for several seasons. The infested areas have been significantly reduced, but monitoring and chemical control will continue.

GAME SPECIES PROGRAMS

White-tailed Deer Management: Information was collected on various WMAs and other sites to determine deer hunter participation and success, the physical condition of deer, and the current status of deer populations. Deer were collected at six sites to assess reproductive health and characteristics within those populations. A hunting activity survey was conducted that resulted in valuable data being collected. The data was used in determining recommendations for hunting seasons and bag limits and evaluating the success of each hunting season.

Hunters reported 84,133 harvested deer through the mandatory deer and turkey harvest reporting system (Game Check) during the 2018-19 hunting season. The 2018-19 season was the third year for mandatory reporting of all deer harvests.

Samples from 1,087 deer were collected and tested for Chronic Wasting Disease (CWD) as part of WFF's statewide CWD surveillance efforts with no detections of the disease. A revision of WFF's CWD Strategic Surveillance and Response Plan was completed.

Wild Turkey Management: Spring turkey hunters who participated in the avid turkey hunter survey helped to collect statewide data on gobbling activity (number of gobblers and gobblers heard), turkeys seen, and gobblers harvested for each day hunted during the season. Wildlife personnel and volunteers collected statewide observational wild turkey brood data in July and August. These observations were collected incidental to normal activities in the field. Field staff and volunteers recorded observations of all turkeys (hens, poults, and gobblers), and each observation during any day was recorded separately. Observations were collected statewide, and the data were separated by five Division of Wildlife and Freshwater Fisheries districts, by six ecoregions (Piedmont, Southeastern Plains, Ridge and Valley, Southwestern Appalachians, Interior Plateau, and Southern Coastal Plain), and by public or private lands. The results of the avid turkey hunter survey and brood survey were published in a wild turkey report entitled Full Fans & Sharp Spurs.

In addition, Wildlife personnel continued to conduct game camera brood surveys in July and August. These surveys were conducted on WMAs statewide that have wild turkeys present. The game camera survey results will be compared to incidental observation results on WMAs where both methods are employed. These projects will continue in the upcoming years.

Mourning Dove Management: The annual mourning dove study, as part of a nationwide project, consisted of trapping, banding, and releasing mourning doves. For this project, 1,338 mourning doves were banded and released, and the data was submitted to the Bird Banding Laboratory of the U.S. Geological Survey. Data from reported band returns will be analyzed by USF-

WS to provide parameters needed for dove population modeling such as band return rates, migration, harvest rates, and estimates for mortality and survival.

Waterfowl Management: Annual biological surveys and research were continued throughout the state to obtain information on wildlife and their habitats to inform management of species. Aerial waterfowl censuses and hunter bag checks were continued in the Mobile-Tensaw Delta and on the Tennessee River during fall and winter. The winter count is conducted in conjunction with other states and the USFWS as part of the annual mid-winter waterfowl survey to assess wintering populations of waterfowl. Aerial counts were also conducted for bald eagles as part of the national mid-winter bald eagle survey.

Research: This past fiscal year, \$1.12 million in Wildlife Restoration Federal Assistance funds and approximately \$385,111 in external sponsorship funds were used to support 14 cooperative research projects between WFF and five different universities. Of these cooperative research projects, 12 were ongoing from previous years, and two new projects were established this past year. Agency staff worked with Auburn University, Mississippi State University, the University of Tennessee, the University of Georgia, and the University of West Georgia with ongoing research projects related to wild turkey survival and recruitment rates, deer diseases, waterfowl habitat use, and wildlife habitat management.

NONGAME WILDLIFE PROGRAM

Bald Eagle Population Monitoring: Since the bald eagle was removed from the Threatened and Endangered Species List in 2007, Alabama bald eagle nests have been randomly monitored for productivity and survivorship. Biologists continued to record newly discovered or reported eagle nests and monitored the number of bald eagles overwintering in Alabama as part of the nationwide 2019 Mid-Winter Bald Eagle Survey. The number of bald eagles wintering in Alabama remains stable.

Golden Eagle Migration Project: Golden eagle camera surveys were conducted in Alabama on three WMAs and one national forest with assistance from Wildlife Section staff and U.S. Forest Service (USFS) staff to assess the Eastern population of golden eagles. A total of 44,290 pictures were compiled, and images of golden eagles were confirmed at all four camera sites. These surveys are helping us learn more about the winter ecology of golden eagles to allow for better management efforts. In addition to camera surveys, WFF and USFS personnel assisted in trapping golden eagle adults through cooperative research projects with Conservation Science Global, Inc., and Cellular Tracking Technologies. Trapping occurred at Freedom Hills WMA, Oakmulgee WMA, and the Shoal Creek Ranger District of the Talladega National Forest. Golden eagles were successfully trapped at each those locations. Data gathered from the tracked birds will help to assess wintering golden eagle habitat in Alabama as well as provide information about their migration pathways and breeding habitat.

Annual Breeding Bird Surveys: Nongame biologists participated in annual surveys to monitor the status of breeding birds in Alabama. Participation continues in the continent-wide Breeding Bird Survey (BBS). Fifteen total BBS routes were conducted across Alabama, increasing the total number of completed BBS routes to 190 over a span of nearly 25 years. Six routes were run in southwest Alabama and two in north Alabama. The BBS program is the most important census program for tracking the population trends of land birds across the landscape.

Christmas Bird Count: Conducted annually during December and January for more than a century, the Christmas Bird Count serves to gather winter population data on all bird species in the U.S., Canada, and many countries in the Western Hemisphere. Nongame Program biologists assist by conducting two Christmas Bird Counts per year, one in south Alabama and one in central Alabama.

Wading Bird Rookery Surveys: Wading bird rookery surveys were conducted across the state to monitor known breeding locations and to survey for additional sites. A total of 31 rookeries were surveyed with 18 of those being active. During the surveys, five wading bird species were detected. Surveys will continue to better assess trends of breeding wading birds in Alabama.

Coastal Shorebird Surveys: Shorebird populations were monitored in Mobile County, where nearly all of Alabama's colonial shorebird colonies are located. Gaillard Island in Mobile Bay is historically the most important single site. The island contained 5,000 brown pelican nests and an equal number of laughing gull nests. Also, more than 1,000 pairs of royal terns and Caspian terns nested on Gaillard Island. Islands in the Mississippi Sound are often important nesting locations. Cat Island once held a growing pelican population away from Gaillard Island, but since 2018 no colonial nesting birds have utilized the island as it continues to shrink from wind and wave action. Nearby Marsh Island, which has seen the addition of 50 acres created by a habitat restoration project, attracted a significant number of nesting birds. Approximately 2,000 pairs of royal tern, Caspian tern, gull-billed tern, sandwich tern, and black skimmer nested on the island. This should continue in the near future as the habitat remains suitable for nesting. Solitary nesting American oystercatcher, snowy plover, and Wilson's plover continue to nest in low numbers in Mobile County on Cat Island, Isle Aux Herbes, and Pelican Island. However, snowy plover has been increasing in Baldwin County, particularly on Bon Secour National Wildlife Refuge property. Birds are closely monitored and protected by refuge staff and personnel of the newly initiated Alabama Coastal Bird Stewardship Program funded by Alabama Audubon. Twenty-four pairs of snowy plovers were monitored in Baldwin County.

Bat Population Monitoring: Nongame Program biologists conducted seven surveys for bat Species of Greatest Conservation Need (SGCN) at various locations in Alabama. Methods included mist-netting, harp-trapping, emergence counts, and acoustic or video surveillance. Greater resolution of the range and distribution of SGCN bats is needed to support and refine regulatory oversight of threatened and endangered bats in Alabama and to more precisely target actions to meet species' recovery criteria.

This year an intern was hired to assist with fieldwork and enter the data into the bat database. She was also assigned a special project to test a new small mammal survey method. This method uses cameras with a short focal length mounted upside down in a 7-gallon bucket at each end of a long drift fence. The 6-week trial period generated thousands of photographs and captured images of multiple species of rodents, reptiles, and amphibians.

Bat Conservation Outreach: The Nongame Biologist for North Alabama serves as the leader of the Alabama Bat Working Group. The Mission of the ABWG is to communicate, collaborate, and coordinate efforts to conserve bats in Alabama. The ABWG undertakes two major events each year to promote bat awareness and conservation in Alabama, an annual meeting and a Bat Blitz. This year the ABWG held the 2019 Bat Blitz on June 4-5 in Fayette and Marion counties. This was the first time bat surveys had been conducted in these two counties. Biologists from federal, state, academic, and private entities surveyed 11 sites over two nights, catching 22 bats from four species. The ABWG continues to grow in membership and refine efforts toward bat conservation.

Eastern Spotted Skunk Research: The Nongame Wildlife Program continues work to better understand the distribution and habitat use of Eastern spotted skunks in Alabama. Although the species was once considered common in Alabama, its range, distribution and population size is now unclear; following an apparent precipitous decline in its numbers. Wildlife Section staff conducted camera surveys for spotted skunks at three sites during the fall and winter of 2018-19: Tuskegee National Forest (12 camera locations), Freedom Hills WMA (nine locations), and Lauderdale WMA (six locations). Wildlife Section staff also assisted biological staff of Bankhead National Forest to run cameras in Black Warrior WMA (five locations). Spotted skunks were detected at Freedom Hills (one location) and Black Warrior (four locations). While spotted skunks had been documented at Black Warrior, this was the first documentation at Freedom Hills. With the finding of spotted skunks in those two locations, a University of West Georgia (UWGA) graduate student relocated her research efforts there from Conecuh National Forest, where she was not catching skunks. Section staff continued to assist with the UWGA research. Nongame program staff provided logistic and field support to Dr. Andrew Edelman and his students at the University of West Georgia studying Eastern spotted skunks with funding from ADCNR.

Biologists continue to receive reports of Eastern spotted skunks through a citizen science project to raise awareness of the skunk and engage the public in conservation. The most successful media outlet generating reports has been the annual advertisement in the Alabama Hunting and Fishing Digest. Last year, six verifiable reports were received with photographs of skunks, in addition to one report of a road-killed skunk from a Wildlife Section biologist. Results suggest the skunk maintains a sparse, statewide distribution with a core population in the Piedmont region.

Endangered Species (Section 6) Species Research: WFF received \$433,479 in federal funds for projects on fish and wildlife species eligible for funding under Section 6 of the Endangered

Species Act. Approximately half of the total funds were for projects administered by the Wildlife Section. Population and status surveys for the red-cockaded woodpecker (RCW), gopher tortoise, manatee, and RCW restoration on state lands are examples of projects made possible by those funds. Implementation of a Safe Harbor Plan for red-cockaded woodpeckers continued for the state of Alabama through the Nongame Wildlife Program as well.

American Alligator Populations: American alligator population and harvest surveys are conducted annually throughout their range in Alabama. Data from these surveys are used to manage our alligator resources and make harvest recommendations for each of the state's five hunt zones. Population surveys are used to evaluate overall trends in alligator abundance, and hunter harvest data is also collected annually from all alligators harvested within each zone to evaluate the health of the population. Harvest information such as body weight, length, sex, and harvest location are collected. This information provides insights regarding trends in health as well as sex and age structure of our alligator populations. Long-term trends from harvest and population surveys continued to indicate a majority of Alabama's alligator population is stable, and a conservative harvest is sustainable. Participation in the hunts is stable, with a total of 4,626 applications being received in 2019 for the 260 available tags. This is a 9% increase from the 4,245 applications received in 2018. Hunter success rates increased 4.2% from 2018, with a 59.6% success rate throughout the five hunt zones. Success rates within each hunt zone are as follows: Southwest 67% with 67 harvested, Coastal 60% with 30 harvested, West Central 62% with 31 harvested, Southeast 48% with 19 harvested, and Lake Eufaula 40% with eight harvested. The hunts continue to rise in popularity, providing hunters with additional opportunities to enjoy our rich hunting heritage. To further understand and manage alligator resources in Alabama, we have initiated a collaborative research project with other state agencies and universities to obtain information regarding hunter harvest management, public satisfaction, and baseline population health within the Mobile-Tensaw Delta.

Falconry Permits: As of September 30, 2019, there were 69 permitted falconers in Alabama at the following classification levels: apprentice (12), general (30), and master (27). Falconers are located in 31 Alabama counties topped by Madison County followed by Shelby County. The federal falconry database maintained by USFWS gives falconers the ability to enter their bird acquisition and disposition records through the internet.

PRIVATE LANDS TECHNICAL ASSISTANCE PROGRAM

Private Lands Technical Assistance: The Wildlife Section employs five biologists dedicated to providing technical assistance to private landowners, corporations, hunting clubs, and government agencies. Throughout the year, biologists made contacts and provided onsite inspections, reviewed and drafted management plans, and conducted various other management outreach activities to enhance wildlife management of Alabama's wildlife resources. One of the most popular avenues for dispens-

ing wildlife management advice is through the agency's Deer Management Assistance Program (DMAP). DMAP included 114 cooperating landowners and hunting clubs with 372,903 acres enrolled last year.

Providing landowners and land managers technical assistance in implementing strategies to improve wildlife habitat on their lands continued to grow in importance. As a result, a mutually beneficial 10-year partnership continued with the Natural Resources Conservation Service (NRCS). This partnership helps private landowners with obtaining farm bill program assistance while delivering better wildlife management advice. Under a cooperative agreement, technical assistance biologists worked out of NRCS offices and worked with NRCS personnel to deliver the programs. Seven Section biologists worked in this partnership in FY19. Biologists met with landowners to develop conservation plans and contracts. Biologists also participated in numerous workshops, tours, presentations, working groups, and training sessions that reached hundreds of landowners and dozens of natural resource agency personnel. This partnership with NRCS will continue in FY20.

Federal Energy Regulatory Commission Meetings: Wildlife staff continued meetings and site visits with personnel from Alabama Power Company (APC) associated with the Coosa Wildlife Management Plan and Martin Dam APC hydroelectric relicensing projects. Staff reviewed documents regarding the development of wildlife, shoreline, threatened and endangered species and recreation management plans for the Martin, Jordan, Mitchell, and Weiss hydroelectric projects. Plans are required by the Federal Energy Regulatory Commission. Notable accomplishments during this past year were the completion of construction design and operation design of the Pruitt's Island Waterfowl Area on Weiss Reservoir and the addition of the Martin Community Hunting Area on Martin Reservoir. Wildlife staff will continue active involvement in the development of wildlife, shoreline, threatened and endangered species and recreation management plans for all projects associated with hydroelectric power generation.

East Gulf Coast Joint Venture: Wildlife Section personnel continue to participate in various aspects of the East Gulf Coastal Plain Joint Venture. A Joint Venture serves to lead a regional habitat conservation movement founded on a science-based, landscape-scale strategy. The partnerships can more effectively secure a sustainable future for birds and habitats. The staff is also participating in the Gulf Coastal Plain and Ozarks Landscape Conservation Cooperative (LCC). The LCC will encompass more than one Joint Venture and will provide management Direction and set priorities for conservation delivery. The LCC will address all taxa.

Sick, Injured and Nuisance Wildlife: Nuisance wildlife information was disseminated to the public through a variety of media outlets, educational workshops, technical literature, and personal correspondence. Due to their destructive nature and negative impact on wildlife habitat, feral hogs are of serious concern in Alabama. Partnerships continued across the state with personnel from ADCNR, the Alabama Cooperative Extension System, and USDA-Wildlife Services to provide informative workshops regard-



ing feral hog biology, impacts of feral hogs on wildlife habitat, disease implications, current control methods and techniques, and the need to eliminate relocation of this species. Control of other nuisance and predator species, such as beavers, coyotes, and raccoons, also generates many requests for assistance from landowners and land managers due to their potential impacts on other game species, including white-tailed deer and wild turkeys. Personnel conducted and assisted with numerous workshops and seminars around the state to educate landowners, hunting clubs, forestry owners, etc., with information to be proactive in their nuisance wildlife management activities. Additionally, informative articles about dealing with these species were made available to the public online through the www.outdooralabama.com website. The ADCNR nuisance manual was utilized by personnel to provide the public with current information on nuisance wildlife species and ongoing nuisance issues across the state.

HUNTER EDUCATION PROGRAM

Education: This was the 26th year that completing the Alabama Hunter Education Program was mandatory for first-time license buyers born on or after August 1, 1977. Approximately 6,305 students participated in the 235 courses offered by certified instructors throughout Alabama. The courses were taught by approximately 436 instructors, mostly volunteers, and totaled 3,488 hours of instruction. The time and expertise contributed by volunteers is essential to the success of the Hunter Education Program. Another 7,031 students took the online hunter education course, for a total of 13,336 students receiving certification.

Adult Mentored Hunting Program: The Wildlife Section conducted a series of Adult Mentored Hunting workshops in FY 19. Five events were three-day events and the remainder were one-day events. A total of 88 people participated in these events. Of the 88 participants, 24% were female and 16% were minorities. Four events were conducted in Dallas County, five in Mobile County, one in Tuscaloosa County, one in Barbour

County, and one in Shelby County. These events are a collaborative partnership with the Alabama Chapter of the National Wild Turkey Federation.

Community Archery Parks: Seventeen community archery parks continued to receive excellent use and public support. Most facilities have a youth range, adult range, and an elevated platform for simulating bow hunting conditions from a tree stand. A simulated ground blind is available for bow hunters to practice shooting from a kneeling or seated position. These ranges were constructed through a partnership with each respective city and the Archery Trade Association. Two new ranges were added in the 2018-19 fiscal year: Walker County and Pike County.

Becoming an Outdoors-Woman (BOW): BOW is a three-day workshop designed for women age 18 years or older. The workshop offers hands-on instruction in a fun and non-intimidating learning environment. Participants choose from more than 50 courses such as backyard wildlife, rock climbing, camp cooking, map and compass, camping, mountain biking, shooting sports (pistol, rifle, shotgun, muzzleloader, as well as gun safety), fishing, hunting, canoeing, nature photography, archery, ATV handling, bird watching, motor boat handling, and more. The October 2018 event had 105 participants, with around 70 ladies being first-time attendees. The March 2019 event had 80 attendees with 60 being first-timers; 25 licenses were sold.

Shooting Ranges: Nine shooting ranges on Wildlife Management Areas, the Etowah Public Shooting Range, the Marengo Public Shooting Range, and the Conecuh National Forest Range continue to receive abundant public use. These ranges are open to the public on a daily basis during daylight hours. Maintenance is conducted throughout the year by staff members and volunteers. This provides a total of 12 agency-operated shooting ranges in Alabama. The Wildlife Section also partnered with a third-party shooting range in FY 19, the Red Eagle Skeet and Trap Club, that is open to the public four days a week. Additionally, the Cahaba WMA Shooting Range was staffed this year, which was well-received by the public.

Shooting Sports: Approximately 5,467 Alabamians participated in 91 youth shooting sports events that were conducted throughout the state to promote safe, responsible firearms handling and to improve marksmanship skills. These one-day events are designed to introduce participants to muzzleloaders, shotguns, .22 rifles, pellet guns, and archery. Sport shooting is closely related to hunting activities, and it is important for the public to have safe areas to participate in that sport. We will continue our efforts to increase developed shooting range sites.

National Archery in the Schools Program: Alabama's National Archery in the Schools Program continued to exhibit growth and now has approximately 450 schools participating, reaching approximately 67,500 students each year. This program has the potential to introduce more than 100,000 students to target-style archery each year. The 16th annual Alabama NASP State Championship was held on April 4-5, 2019, and featured 1,783 participants from 86 schools. Approximately 3,909 student archers from 166 schools participated in eight regional qualifying events for the state championship. Teachers, participants, spectators, and WFF employees stated the events were well-organized and said they look forward to future events. Teachers and school administrators have made positive statements regarding this program and report that student behavior, attendance, and attitudes have improved since implementing the NASP. The 2020 event is scheduled for April 5-6 at the Montgomery Sportsplex near Cramton Bowl. Approximately 1,750 students are expected to participate. This event will provide WFF with an opportunity to introduce participants to other outdoor life skills in addition to archery.

Trapper Educational Workshops: The Wildlife Section conducted six youth and two adult furbearer trapping workshops. Three workshops were cancelled due to weather and safety concerns. Workshops were held in Franklin, Escambia, Jackson, Baldwin, Marion and Barbour counties. These cooperative trapper education workshops were a collaborative effort of the WFF Division, the U.S. Department of Agriculture Wildlife Services, Tennessee Valley Authority, Safari Club International, Alabama Trappers and Predator Control Association, Alabama Forestry Commission, and the Alabama State Lands Division. Participation in the workshops included 128 students with an average age of 10 years old and 132 adults. 12.8% of the students were female. Many of the students were accompanied by a parent or guardian. The adults were often as enthusiastic as the students. The two-day program begins on a Saturday morning with classroom presentations on trapping history, furbearer management, responsible trapping and conservation, and trapping laws and regulations. Each program continues with additional discussion on trap and snare types, trapping equipment and lures and baits, and hands-on trap-setting familiarization. Saturday afternoons are devoted to trapline scouting and making sets with their mentors. On Sunday mornings the students meet at predawn to check traps and pull their trapline. The rest of the day is devoted to fur-handling methods and techniques. This program continues to be well received by the participants. The impact was far-reaching and beneficial to both parents and students who participated. Plans for FY 2019-20 are to conduct eight two-day workshops

throughout Alabama: November 2-3, 2019, in Hamilton (Marion County - adult class); November 9-10, 2019, in Greenville (Butler County - youth class); December 14-15, 2019, in Red Bay – (Franklin County - youth class); December 28-29, 2019, in Leeds (Jefferson County - youth class); January 18-19, 2020, in Atmore (Escambia County - youth class); January 25-26, 2020, in Scottsboro (Jackson County-youth class); February 15-16, 2020, in Spanish Fort (Baldwin County-youth class); February 29-March 1, 2020, in Choctaw County (adult class). Workshops are conducted in a two-day format in order to improve attendance and decrease the travel time and expenses of the attendees.

FUTURE ISSUES

Public Hunting: The loss and threat of losing leased land in Wildlife Management Areas is a continued significant concern. Land acquisitions for WMAs were accomplished during the past year. Using Pittman-Robertson Federal Assistance funds, 619 acres were purchased and added to the Barbour County WMA. More leased land is likely to be lost in the future as private and corporate landowners withdraw from their contractual agreements to generate more revenue. The Wildlife Section will attempt to contractually lease or fee-simple purchase other lands and provide additional incentives to encourage landowners to include lands in the program. WFF Wildlife Section will also continue to work with the Forever Wild Land Trust to acquire land for public hunting.

Nuisance Wildlife: The occurrence of nuisance wildlife problems and conflicts continues to rise, especially as we deal with an increasingly urbanized society. This portion of the public is unfamiliar in dealing with wildlife issues. Also, the urban/suburban setting limits common solutions to deal with many of these problems. At the district level, a considerable amount of work time is spent providing assistance on nuisance wildlife calls. As the Division becomes more active in dealing with these non-traditional wildlife issues, time management and funding will become more challenging. The Division's Wildlife Section has issued approximately 107 nuisance wildlife control operator permits across the state. These permits allow private companies/individuals to deal with nuisance wildlife issues.

State Funding: Federal funding associated with the Federal Aid to Wildlife Restoration Act has increased significantly during the past five years. The matching state dollars required to fully utilize all the federal dollars (25/75) have been limited and quite possibly could lead to reversions of federal dollars if matching opportunities are not available. WFF staff has collaborated with the Forever Wild Board and worked cooperatively to utilize Forever Wild funding as a state match source. This assists in capturing the allotment of the federal apportionment that is beyond the amount our traditional state dollars can match, thereby providing aid for land acquisitions slated for inclusion into the WMA system. We are exploring other options to fully utilize our federal dollars through partnerships with outside entities and third-party in-kind match.

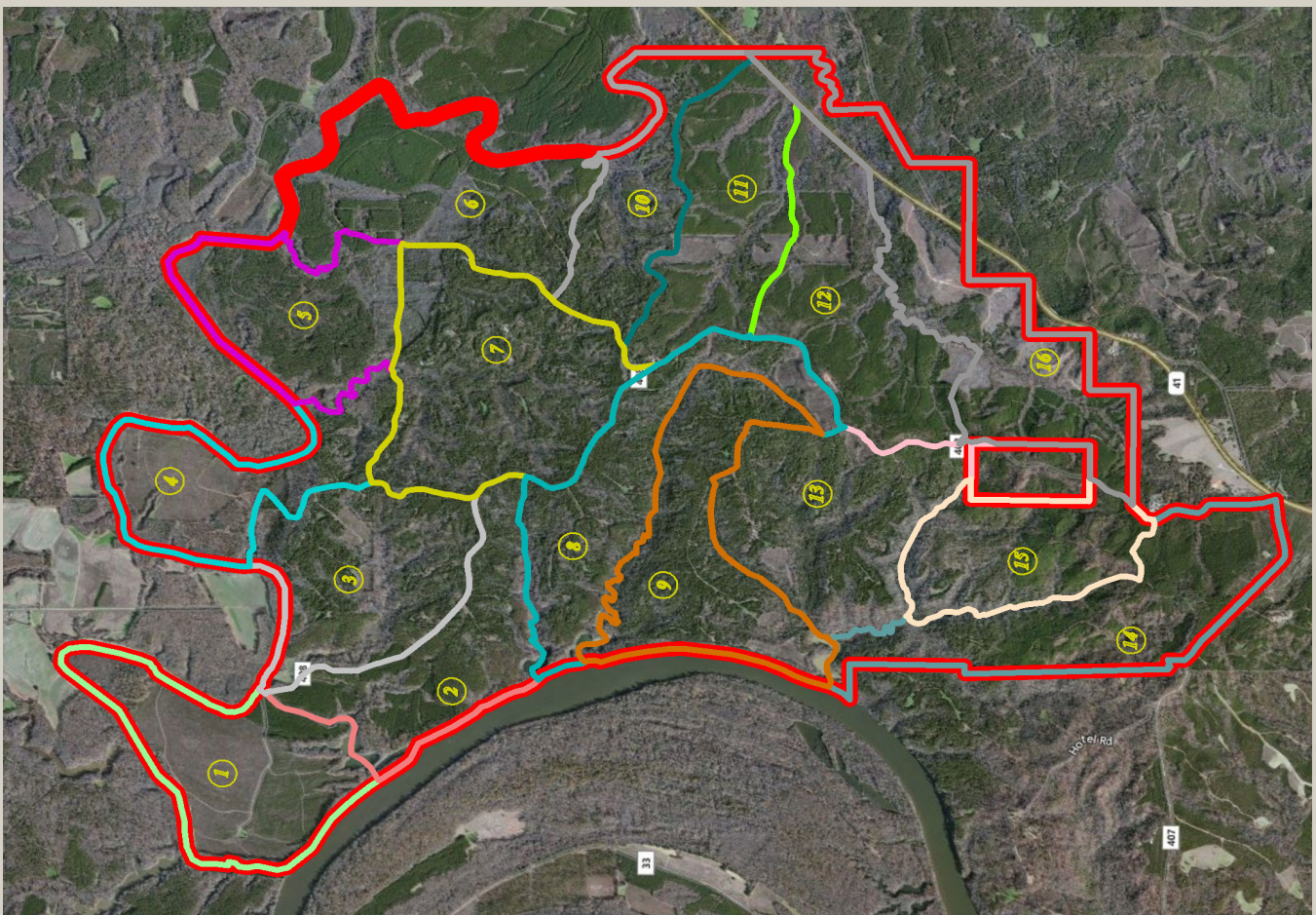


SPECIAL OPPORTUNITY AREAS (SOA), GOOD OR BAD? THE SURVEY SAYS...

By Chuck Sykes, Wildlife and Freshwater Fisheries Director

“If you haven’t hunted public land in Alabama in a while, this survey may bring you back.”

First things first, what is a Special Opportunity Area (SOA)? An SOA is a piece of public land that is typically smaller than a Wildlife Management Area (WMA) and, therefore, managed much differently. An average WMA may be 30,000 acres in size compared to the average SOA, which is approximately 3,000 acres. Each SOA is then broken down into hunting units that range from 300-500 acres.



To hunt on an SOA, a hunter must go online to www.outdooralabama.com, choose hunting dates and locations, register for a hunt, and then be selected through a random, limited-quota drawing. If selected, the lucky hunter and guests will be designated a specific unit for the duration of the hunt, and they will be the only hunters allowed on that unit. This program is unlike any other public land hunting opportunity in Alabama. The limited-opportunity format reduces pressure on the SOA, creating a hunting experience that exceeds that of many private hunting clubs. Currently, our program has six SOAs, which offer deer, turkey, waterfowl, dove, small game, and youth-only hunts.

I know this is going to be hard to believe, but not everyone was supportive of our new SOA idea, and the naysayers came out of the woodwork when we announced the SOA hunt format. Change comes hard to most people, so we were expecting a little backlash to the new hunting opportunity we were providing.

We were very confident that we were going to be providing a great opportunity for hunters to enjoy some of the best public hunting available with the SOA structure. But, to be sure we hadn't missed the mark, we decided to survey hunters who hunted an SOA last season.

On June 18, we sent an email survey to 380 hunters who were drawn to participate in an SOA hunt. The first day, 160 people opened that email, which is a 42% open rate. Considering the typical open rate on any ADCNR email is approximately 21%, that was a staggering number. In addition, 109 people (28%) took the survey the first day! Within one week, more than 170 people (45%) had taken the survey.

Those participation numbers indicated one important thing to us – people were passionate about the SOA program and wanted to voice their opinions. Not only did they take the time to answer the survey questions, they even added additional comments. We received 10 pages of comments!

Typically, if anyone takes time to send comments to us, they aren't complimentary. However, this survey was different. The comments were overwhelmingly positive. Even hunters who had a "substandard hunt" were positive. Here is one of those comments: "We hunted for three days, only one deer was seen. He was a small buck. Only one small food plot in area. Plenty of deer sign. I guess they were just scared that two 'OLD MEN' would take them out if they showed themselves. The people handling the program were great. The reason they call it hunting is that you don't get something every time, just have to keep on keeping on! Thanks for the opportunity to try!"

We designed the SOA program to accomplish a couple of goals. The first was to provide higher quality experiences to our current public land hunters through limited-access and more restrictive antler requirements. The second was to encourage more hunters to utilize public land. According to these two survey comments, we have accomplished both:

"I think the SOAs are a great way for the public to hunt some really good areas they usually wouldn't have access to. I am

very satisfied with the way they are managed. In my opinion this method makes way more sense than just open access public land."

"My husband and I have participated in three SOA turkey hunts. We mostly hunt private land, so this program provides us with hunting opportunities that we would normally not pursue."

Here are a few more numbers from the survey:

- 93% of the participants were Alabama residents
- 85% approved of the antler restrictions
- 85% ranked the SOA experience as either good or excellent
- 17% had never hunted public land in Alabama
- 30% hadn't hunted public land in many years
- 71% indicated they would drive 101-250 miles to hunt an SOA. (Surveys revealed for decades that most hunters wouldn't drive more than 50 miles to hunt a typical WMA.)
- 65% stayed in local hotels, campgrounds, or bed and breakfasts proving that SOA hunts are aiding the local economy
- 91% wanted the Wildlife and Freshwater Fisheries Division to continue to partner with the Forever Wild Land Trust (FWLT) to purchase more land to be included in the SOA system. The remaining 9% said they didn't know enough about the FWLT to have an opinion. One person out of the 172 who completed the survey said, "No." As the old saying goes, "There's one in every crowd!"

People can sometimes be more prone to share what they dislike rather than what pleases them. However, this survey showed that our citizens and guests truly appreciate the hard work that WFF staff put into managing the natural resources of Alabama and into providing them opportunities to enjoy those resources. That being the case, I must leave you with a couple more survey quotes:

"I am very thankful for the opportunity to hunt the SOA. The staff at Cedar Creek was very helpful and provided a very memorable hunting experience. Would absolutely return in the future. My dad took a real nice 6-plus year-old buck and I took a nice buck as well. Keep up the great work!"

"This was a priceless trip for me and my boys. It was a lifetime of memories captured in a few days. The rangers were very helpful, and the deer were plentiful. Thank you for your work to make these hunts possible. I work offshore, and it is challenging to do things like this with my boys due to my schedule. Keep up the good work!" ■



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