



ALABAMA DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES

2019-2020 ANNUAL REPORT





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



Dear Governor Ivey:

I am pleased to submit the Alabama Department of Conservation and Natural Resources' (ADCNR) Annual Report for the fiscal year ending September 30, 2020.

Despite the challenges the Department faced during the COVID-19 pandemic, we continued to find new ways to serve the public while adhering to our mission of promoting wise stewardship and enjoyment of Alabama's natural resources for current and future generations.

Alabama's State Parks were a popular choice for outdoor recreation during FY 2019-2020. The ability to safely practice social distancing in the outdoors combined with a variety of recreational opportunities allowed our State Parks System to experience its most utilized year to date. An increase of 1.2 million guest occurrences over the previous year set a new State Parks record of 6.2 million guest occurrences for 2020.

Last year Alabama took a major step toward the potential delisting of a federally protected species, the Red Hills salamander (RHS). With funding provided through the U.S. Fish and Wildlife Service and the Forever Wild Land Trust, ADCNR's Wildlife and Freshwater Fisheries Division purchased 4,911 acres of critical RHS habitat in Monroe County, Alabama. Those acres are now part of the Forever Wild Red Hills Complex and are helping to secure the future of a species found nowhere else in the world. In addition to habitat conservation, the land will eventually be accessible to the public for outdoor recreation including hunting, wildlife watching, and birding.

Alabama once again benefited from the state management of its 2020 private angler red snapper season. Our Marine Resources Division's ability to monitor the harvest accurately and in a timely manner through ADCNR's Snapper Check system allowed anglers maximum opportunities to fish our quota of 1.12 million pounds of red snapper. In 2020, anglers landed 1.10 million pounds of red snapper 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 2020, 16 awards totaling approximately \$40 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,

Christopher M. Blankenship
Commissioner

TABLE OF CONTENTS

Overview	5
Conservation Advisory Board	6
Budget	7
Organizational Chart	8
Administrative	9
Marine Resources	16
The Claude Petet Mariculture Center	20
State Lands	22
Walls of Jericho Trail Upgrades	30
State Parks	32
State Parks System Looks to the Future with Upgraded Reservations System	40
Wildlife and Freshwater Fisheries	42
Off-Season... What Off-Season?	56

DEPARTMENT OVERVIEW



The **Alabama 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, 34 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 2020, the Department had four operational divisions and eight support sections. The operational divisions were Marine Resources, State Lands, State Parks, and Wildlife and Freshwater Fisheries. Support sections were Accounting, Engineering, Communications and Marketing, 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. Throughout the fiscal year, the Department promoted wise stewardship, management, and enjoyment of Alabama's natural resources. 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 2020:

- February 29, 2020, at the Richard Beard Building (Alabama Department of Agriculture and Industries) in Montgomery, Alabama
- August 22, 2020, at Battleship Memorial Park in Mobile, Alabama.

Conservation Advisory Board Members as of Sept. 30, 2020

Members	Hometown	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
Ben C. Stimpson, Jr.	Mobile	September 30, 2023
Gary Wolfe	Fairhope	March 28, 2021
Tim Wood	Selma	September 30, 2023

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

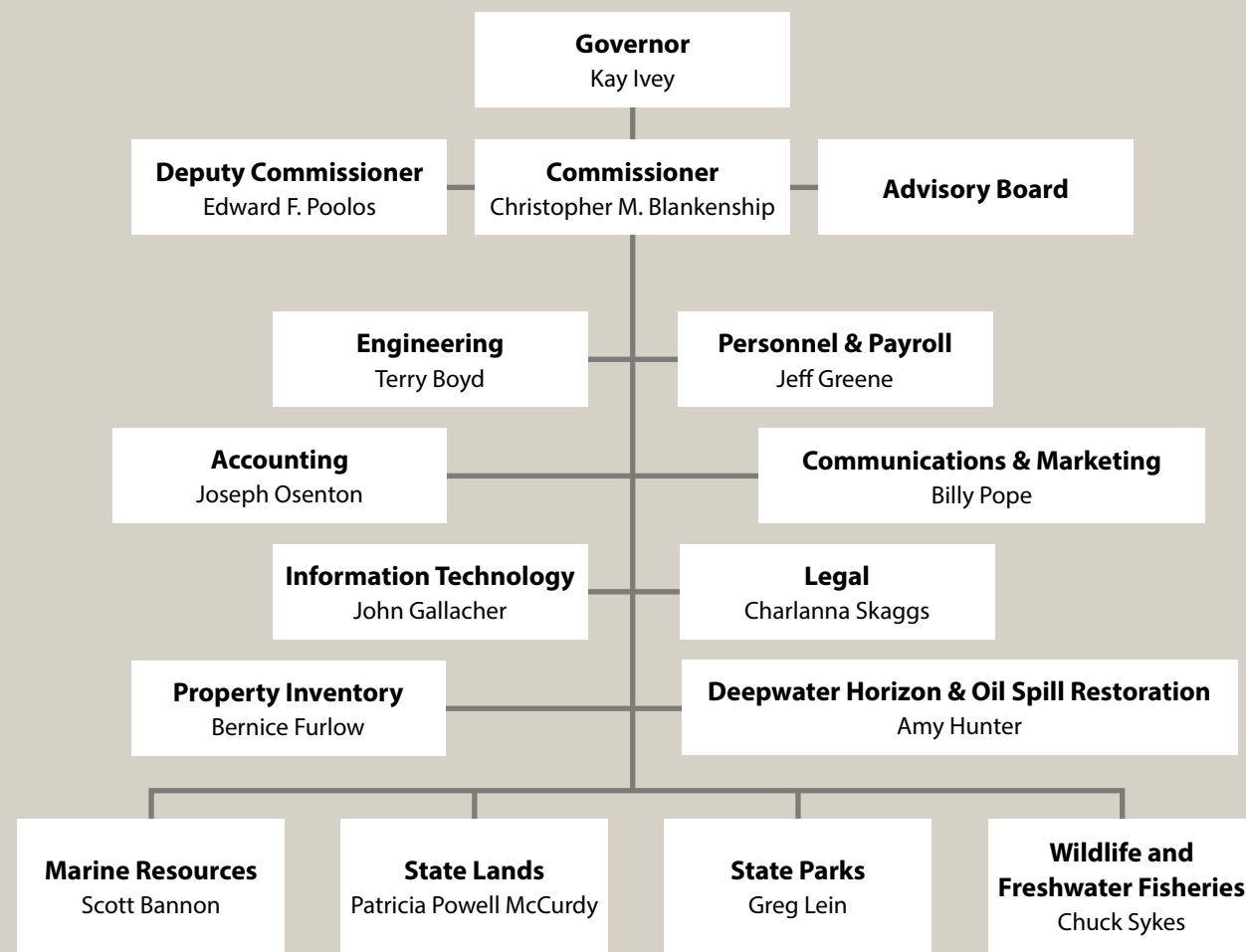
Ex-officio Secretary of the Board

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

Department of Conservation and Natural Resources Overview of 2021 Budget Request:

	ACTUAL 2020	BUDGET 2021	BUDGET 2022
NUMBER OF EMPLOYEES	974	1,201	1,205
UNENCUMBERED CASH BALANCE FORWARD	75,953,590	86,180,394	56,395,052
Federal Funds			
0303 Marine Resources - Gulf States Marine Fisheries Commission	721,916	734,000	914,000
0303 Marine Resources - Commerce	672,822	695,998	935,600
0303 Marine Resources - Interior	602,564	1,198,500	1,185,750
0304 Game & Fish - Interior	30,261,364	21,700,000	22,566,000
0304 Game & Fish - Misc	31,189	317,000	522,000
0305 Lands - Commerce	3,943,188	5,220,000	4,412,000
0305 Lands - Interior	574,825	0	995,406
1713 Restore Act	11,793,012	138,340,207	138,340,207
Total Federal Funding	48,600,880	168,205,705	169,870,963
National Fish and Wildlife Foundation	4,251,136	6,835,000	2,195,000
Licenses and Permits	26,532,202	23,062,300	26,014,100
Land Management Fees	2,481,351	3,477,924	3,198,457
User Fees	37,432,614	43,934,824	45,033,195
Timber Sales	344,718	750,000	588,000
Fines	477,380	606,000	503,100
Trust Fund Interest (MR and WFF)	785,684	650,000	680,000
Other	4,937,600	8,931,300	8,652,000
Total Departmental Related Receipts	77,242,685	88,247,348	86,863,852
Cigarette Tax	2,395,000	3,000,000	3,000,000
Gasoline Tax	2,709,631	2,940,000	2,829,870
Use Tax Discount Cap	1,148,109	1,400,000	1,145,380
Sales Tax Discount Cap	8,000,000	10,055,000	5,000,000
GOMESA	40,037,409	26,000,000	30,000,000
Forever Wild Land Management	900,000	900,000	900,000
BP Oil Spill/NRDA Reimbursements	22,721,416	22,721,000	25,000,000
Coronavirus Relief Fund	540,023	0	0
Total Other Receipts	78,451,588	67,016,000	67,875,250
Administrative Transfer	8,308,674	8,600,000	10,000,000
Actual All Receipts	212,603,827	332,069,053	334,610,065
BFY 2020-2022 Expenditures or Budgeted	202,377,023	361,854,395	377,961,887
Revenues versus Expenditures--Over(Under)	10,226,804	(29,785,342)	(43,351,822)
UNENCUMBERED CASH BALANCE	86,180,394	56,395,052	13,043,230
BFY 2020-2022 Expenditures/Budgeted	202,377,023	361,854,395	377,961,887
BFY 2020-2022 Federal Funding	48,600,880	168,205,705	169,870,963
BFY 2020-2022 State Funding	153,776,143	193,648,690	208,090,924

Department Organizational Chart as of September 30, 2020



FY 2020 Budgets and Expenditures for Administrative Division

Section	Budgeted Amount	Actual Expenditures	Over/(Under)
Accounting	2,602,683	1,958,287	(-644,396)
Commissioner	745,633	578,179	(-167,454)
Engineering	459,756	423,363	(-36,393)
Information & Education	814,585	662,580	(-152,005)
Information Technology	2,426,208	2,168,926	(-257,282)
Legal	1,084,578	953,469	(-131,109)
License	334,289	250,414	(-83,875)
Payroll & Personnel	1,130,068	1,100,399	(-29,669)
Property Inventory	224,932	248,719	23,787
Contingency	810,482	0	(-810,482)
Totals	10,633,214	8,344,336	(-2,288,878)

ADMINISTRATIVE DIVISION

ACCOUNTING

The Accounting Section is the central clearinghouse for all departmental financial data. The Section 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. More than 20,000 transactions are processed on an annual basis.

Accounts Receivable reviews and approves all cash receipts and investment transactions for the Department. More than 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 FY2020 were approximately \$202.4 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.

COMMUNICATIONS AND MARKETING

The Communications and Marketing Section 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

- Managed the Department's email marketing and communication platform (GovDelivery) that is used to communicate with 4,823,275 subscribers distributed among 181 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 2019-2020, Communications and Marketing's email marketing and communications efforts sold 10,476 license privileges with a total revenue of \$705,650

- Developed key partnerships with Academy Sports + Outdoors to provide license incentives, two in-store "Shop With a Cop" events, a 2020 Bassmaster Classic Free Fishing License Giveaway (generated \$18,000 in revenue), and a Bassmaster Classic First Responder Event in which \$2,500 in fishing equipment was donated to ADCNR's Wildlife and Freshwater Fisheries Division to be used for R3 efforts (recruitment, retention, and reactivation)
- 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
- Assisted in promoting Alabama's participation in the 2020 Census with link placements on all ADCNR websites, leveraged the ADCNR email marketing lists (701,791 total recipients), and shared Census marketing across all ADCNR social media platforms
- 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 2019-2020, the Outdoor Alabama Facebook page grew by 5,850 followers, for a total of 49,594. The total reach per post was 6,667 Facebook users
- Produced 10 Facebook Live streams for ADCNR's Wildlife and Freshwater Fisheries Division for a combined total of 108,000 views and an estimated reach of 238,000 Facebook users
- Oversaw and maintained content for two official Department websites – OutdoorAlabama.com and AlabamaForeverWild.com. OutdoorAlabama.com Users: 2,216,686 (19.5% increase over the previous year) New Users: 2,182,961 (22.6% increase over previous year) Page Views: 7,738,426 (12.8% increase over previous year)
- Communications and Marketing 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

- 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 Departmental 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, 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: one IT Manager, three Programmer Analysts, one Programmer, three System Specialists, two System Technicians, one Account Clerk, and four contractor-filled positions. There are currently seven vacant merit positions in IT.

Accomplishments

- Processed Game Check information on more than 95,000 deer harvested during the 2019-2020 season
- Managed commercial and recreational hunting and fishing license system
- Implemented license system changes to allow for new license packages containing multiple privileges
- Created an interface to update personal information for the license renewal process through myoutdooralabama.com
- Developed a Lease Tracking and Payments (LTAP) system for the State Lands Division that tracks leases on state lands as well as donations to the Division. The system also tracks the lessee, the person who makes the lease payment, and how the payment is recorded in accounting.

- Updated the Game Check system by adding the time of harvest for law enforcement purposes
- Continued developing an all-encompassing system for the public to register for public hunts, including public hunts that have an associated fee such as sandhill crane season. The online video training interface was also improved.
- Updated the State Lands Heritage Database to allow for multiple formats when importing species observation data
- Upgraded the license system to allow for the integration of current manual lifetime license validation before permanent issue of the license
- Updated the license sales system to collect and verify parent/legal guardian residency for minors without a drivers license
- Updated the Snapper Check system to include onshore reporting that uses a Conservation ID instead of a vessel number
- Developed a Federal License Certification Report based on new federal requirements that are used to obtain matching grants
- Enhanced game breeder application tracking reports with additional administration features
- Updated the hunt selection process to include sand hill crane training, automated alternate promotion process, and supplemental draw
- Recovered a public web server and created the associated disaster recovery documentation
- Created framework training documentation for developers
- Started converting 11 State Parks to cloud-based Cisco Meraki networks for increased visibility, management, and security for both internal and public networks
- Completed Windows 10 deployment of 450 computers throughout the state
- Implemented regular email phishing tests to increase cybersecurity awareness
- Converted previous Adobe cloud licensing to an enterprise agreement, significantly reducing the cost per user
- Added multifactor authentication to all ADCNR user accounts and Virtual Private Network (VPN) connections
- Migrated entire web server environment (12 servers) to Microsoft Azure cloud infrastructure
- Relocated all physical servers to the Retirement Systems of Alabama (RSA) Dexter Avenue Datacenter to provide increased security and reliability
- Created a new help desk portal for users to submit and track tickets as well as find useful information
- Removed direct user access to all shared accounts and established individual, delegated identities for all users
- Implemented an automated and paperless user account creation and approval process

- Added data loss prevention monitoring to OneDrive and SharePoint
- Continued digitizing and indexing the Department's legal document archive
- Purchased new backup system appliance with air-gapped ransomware protection

COVID-19 Response

- Doubled VPN capacity to provide remote connections to secure resources
- Added 110 Microsoft SharePoint sites and Office 365 groups for cloud storage and remote file access
- Purchased 25 new laptops with CARES Act funding to facilitate remote work
- Purchased additional remote assistance tools to limit in-person contact
- Provided the Department with free training sessions for WebEx and Microsoft Teams

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 architecture, surveying, cartographic, and related administrative services to the Department's divisions.

Facilities and Personnel

The Engineering Section had four employees during FY 2019-2020: 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

During FY 2019-2020, the Engineering Section administered approximately \$12 million in contracts. Section programs consisted of providing the professional expertise required to reach Department goals. Those programs included using both out-sourced and in-house design and construction, master planning, and site planning for Department facilities.

Engineering provided surveying assistance and technical advice on construction projects, boundaries, and property corners for Alabama State Parks, as well as the delineation and location of oyster reefs, public access areas, wildlife management areas, state lakes, and other state-managed property.

The Section continued to provide environmental-based assistance to the Alabama State Parks Division, including overseeing the acquisition of a wastewater treatment company to operate, run, and maintain treatment facilities at Lake Gunterville, Cheaha, Wind Creek, and Lakepoint state parks.

Engineering also coordinated Federal Emergency Management Agency (FEMA) disaster activities associated with Hurricane Sally and will continue to do so in 2021.

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

The Deepwater Horizon Oil Spill Restoration Section (DWHRS) coordinates administrative and technical aspects of restoration in coastal Alabama associated with the Deepwater Horizon Oil Spill.

Specific activities included participating in Natural Resource Damage Assessment (NRDA) Trustee Council meetings, participating in Trustee Implementation Groups, conducting public meetings related to NRDA activities, soliciting of public input regarding potential restoration ideas, assisting with development of draft restoration plans and implementation of early restoration projects, and representing the interests of the NRDA trustees and the Governor's office.

The DWHRS assists the Commissioner related to his service as the Governor's designee to the Gulf Coast Ecosystem Restoration Council, established pursuant to the Resources and Ecosystems Sustainability, Tourist Opportunities, and Revived Economies of the Gulf Coast States Act of 2012 (RESTORE Act), which directs 80% of Clean Water Act civil penalties resulting from the Deepwater Horizon Oil Spill 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 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 (GEBF). This fund resulted from two plea agreements entered in early 2013 resolving the criminal cases against BP and Transocean arising from the Deepwater Horizon Oil Spill.

Significant accomplishments in FY20 included:

- Implementation of NRDA Restoration Plan III containing seven projects valued at over \$23 million

- Funding announcement for two new strategic land acquisition projects under NFWF-GEBF valued at over \$8 million
- Implementation of \$2.1 million Commitment and Planning Support grant from the Gulf Coast Ecosystem Restoration Council (RESTORE-Federal Council) to support the State's efforts in collaborative planning for Gulf-wide restoration efforts
- Continued support, as administrator, for the Alabama Gulf Coast Recovery Council implementing Alabama's Multiyear Implementation Plan (MIP) and State Expenditure Plan (SEP) as required under the RESTORE Act. The two plans describe more than 40 projects valued at over \$315 million. An overview of restoration projects benefiting the State of Alabama, organized by funding stream, is provided below. 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 Pines Living Shoreline Project - \$2,300,000
- Osprey Restoration in Coastal Alabama Project - \$62,580
- 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 I - \$994,523
- Southwestern Coffee Island Habitat Restoration Project, Phase I - \$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
- Coastal Alabama Sea Turtle (CAST) Conservation 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 Restoration Reef Placement - \$962,370

NRDA Restoration Plan III Projects

- Perdido River Land Acquisition (Molpus Tract) - \$4,792,540
- Bayfront Park Restoration and Improvement, Phases IIa and IIb - \$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

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
- 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 I - \$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 I - \$5,900,000
- Dauphin Island Conservation Acquisition - \$3,560,000
- Fowl River Spits 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 III - \$4,400,000
- Little Dauphin Island Restoration Assessment - \$1,480,000
- Salt Aire Shoreline Restoration - \$12,700,000
- Mobile Bay Shore Habitat Conservation and Acquisition, Phase II - \$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 IV - \$2,800,000
- Alabama Artificial Reef and Habitat Enhancement, Phase II - \$22,499,000
- Lightning Point Acquisition and Restoration Project, Phase II - \$16,578,000
- Restoration of the North Side of Dauphin Island, Phase I - \$329,000
- Deer River Shoreline Stabilization, Phase I - \$750,000
- Bon Secour River Headwater Restoration, Phase I - \$1,528,000
- Bon Secour National Wildlife Refuge Acquisition (Three Rivers), Phase II - \$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
- Lower Fish River Watershed Restoration - \$6,554,000
- Dauphin Island Causeway Shoreline and Habitat Restoration, Phase II - \$9,392,000
- Dauphin Island East End Beach and Dune Restoration, Phase I - \$1,400,000
- Bon Secour River Headwater Restoration, Phase II - \$5,100,000
- Wolf Creek Headwaters Restoration, Phase I - \$500,000

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 (City of 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 1 Projects (Bucket 2)

- Coastal Alabama Comprehensive Watershed Planning Project - \$4,342,500
- Alabama Living Shoreline Restoration Program, Categories 1 & 2 - \$6,250,000
- Comprehensive Living Shoreline Monitoring Program, Categories 1 & 2 - \$4,000,000
- Submerged Aquatic Vegetation Restoration & Monitoring Program - \$875,000
- Marsh Restoration in Fish River, Weeks Bay, Oyster Bay, Meadows Tract, Categories 1 & 2 - \$3,158,043
- Enhancing Opportunities for Beneficial Use of Dredged Sediments - \$3,000,000

RESTORE - Federal Council FPL 2 Projects (Bucket 2)

- Alabama Commitment and Planning Support Grant - \$2,100,000

RESTORE - Federal Council FPL 3a (Bucket 2)

- Perdido River Land Conservation and Habitat Enhancements - \$26,800,000

RESTORE - Federal Council FPL 3b Proposed Projects (Bucket 2)

- Coastal Alabama Regional Water Quality Program - \$25,000,000
- Enhancing Hydrologic Connectivity in Justin's Bay (Mobile Bay) - \$1,000,000
- Developing Ecological Flow Decision-Support for Mobile River and Perdido River Basins - \$3,400,000
- Perdido Watershed Water Quality Improvements and Restoration Assessment Program - \$1,500,000

- Enhancing Gulf Waters Through Forested Watershed Restoration - \$9,000,000
- Gulf Coast Conservation Reserve Program - \$1,000,000

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 Gulf Seafood Marketing Program - \$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 Wastewater Treatment Facility - \$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 (Sediment Reduction) Program - \$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 Cured In-Place Pipe - \$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 I - \$10,300,000
- Eastern Shore Sanitary Sewer Overflows Prevention Plan (Fairhope) - \$1,030,000
- Expansion of the Orange Beach Wildlife Rehabilitation and Education Center/Gulf Coast Wildlife Recovery and Interpretive Center: Feasibility, Planning and Preliminary Design - \$472,255
- Environmental Restoration of Cotton Bayou and Terry Cove - \$515,000
- Auburn University Gulf Coast Environment 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 SR161 - \$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



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 natural resources and the citizens of Alabama. MRD consists of Enforcement, Fisheries, and Administrative sections.

The **Fisheries Section** makes recommendations regarding fishery-related matters to Division managers. To meet this responsibility, Section staff conduct varied 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. Section staff also manage programs focused on oyster restoration, inshore and offshore artificial reef programs, and the mariculture program located at the Claude Petet

Mariculture Center. The Section worked with the public as well as state and federal agencies along the Gulf of Mexico to collect data through various projects to determine the status of state and federal marine resources. Each year, the Fisheries and Enforcement sections partner to participate in public outreach programs.

The **Enforcement Section** is responsible for 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 as well as hunting and freshwater fishing laws and regulations. The Section coordinates extensively with other state and

federal agencies in cooperative enforcement operations, investigations, training, public safety, search and rescue, and other natural resource issues. In FY 2019-2020, the Enforcement Section employed 19 Conservation Enforcement Officers.

The **Administrative Section** is responsible for 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. In FY 2019-2020, the two facilities supported 63 full-time employees, one part-time employee, and six temporary positions. There were 78 full-time, one part-time, and 12 seasonal employees budgeted during the year.

Accomplishments and Activities

FISHERIES SECTION

FY 2019-2020, Section staff continued to monitor oyster densities on Alabama's public oyster reefs. From May to August 2020, 230 oyster samples were collected and processed. Low densities of legal-sized oysters (a minimum length of 3 inches) were observed on many of the reefs surveyed. However, the density of oysters on those reefs increased slightly from the 2019 surveys. The densities of oyster spat (oyster larvae permanently attached to a surface) and sublegal-sized oysters were lower in 2020 than in 2019. The lower spat and sublegal oyster densities were most likely due to extended periods of low salinity (the amount of salt dissolved in a body of water) caused by extended periods of heavy rainfall in the spring of 2020.

Staff continued the operation and maintenance of two water quality monitoring stations in Mobile Bay. Results indicated significant periods when oxygen was not present at depths greater than 8 feet. This lack of oxygen has adverse effects on naturally occurring oyster production.

Staff supervised the initiation of an experiment comparing several different configurations of material used in oyster reef building. The purpose of these experimental oyster mounds will be to determine how high a reef needs to be built to maximize oyster survival and growth. In recent years, frequent low oxygen events have been documented at the water bottom of historical oyster growing areas. Oyster attachment and survival on these experimental mounds will be monitored next year. If significant



increases in oysters are found on the experimental mounds, a cost-benefit comparison will be conducted to determine if the new methods can be used for larger projects.

Fisheries staff continued to map current and historical oyster reef locations in Mobile Bay using side-scan sonar. The scans help determine the locations of live oyster reefs. To date, more than 25 square miles of water bottoms have been scanned. The side-scan images have identified several areas that are suitable for staff to conduct ground-truthing (a data collection method used to verify if live oysters exist in those areas). Future ground-truthing data will be used to identify additional water bottoms that have the potential for oyster restoration activities.

Staff collected biological data (age structures, length, sex, and weight) from 1,117 fish, representing 13 marine finfish species. This was an increase of 73 fish over the previous fiscal year. Biological sampling was restricted during stay-at-home orders due to the COVID-19 pandemic. The collected data is kept in the GulfFIN Biological Data Management database system. This data is helpful to fishery managers because it describes the age of fish being harvested by anglers in Alabama. Knowing the proportion of fish kept by anglers and their age assists fisheries managers with determining appropriate regulations for the species.

The Section participated in the NOAA Fisheries Access Point Angler Intercept Survey (APAIS) during FY 2019-2020. This survey gathers catch information directly from saltwater anglers. Staff surveyed 3,331 recreational fishing trips at various marinas and shore sites – a decrease of approximately 300 surveys compared to those conducted in the previous fiscal year. APAIS data are used to estimate the recreational catch among Alabama anglers. Recreational catch data is used in stock assessments for many finfish.

In November 2019, the Section completed the fifth and final year of an observer program of federally permitted charter vessels. The program's objective was to monitor angler catches during fishing trips to gather data on reef fish (snappers, groupers, triggerfish, etc.) that were released or retained. The data is helpful to managers as it provides detailed data about released fish which is not collected during traditional surveys conducted at shore sites. Staff observed 65 vessel trips, resulting in 2,000 reef fish being identified from 31 species, more than 1,000 reef fish being measured, and 423 fish being tagged and released.

In 2020, the Division managed Alabama's private recreational red snapper quota of 1.12 million pounds. Due to higher than expected landings (catches brought ashore), the season was temporarily closed to avoid going over the quota. Nearly 80% of the quota was caught within 60% of the planned season. The higher than anticipated catches were due to good weather and a higher interest in outdoor activities related to the COVID-19 pandemic. The remaining 20% of the quota was made available during a fall fishing season. Landings were monitored through Alabama's Snapper Check reporting program. A representative from each recreational vessel (charter or private) with red snapper was required to report the red snapper harvest before landing the fish in Alabama. The program allows for calculating estimated harvest within several days of reporting and minimizes chances landings will exceed the quota.

The Claude Petet Mariculture Center (CPMC) in Gulf Shores continued its fish stocking program. Three species of fish were raised at CPMC in FY 2019-2020: Florida pompano, Southern flounder, and spotted seatrout. Florida pompano releases totaled 23,549 fish. The first spawning of Southern flounder at CPMC occurred in 2020; 12,236 1- to 2-inch flounder were released in local waters during spring 2020. Spotted seatrout were brought back into CPMC's production schedule for the first time in more than two decades, and 60,000 fish were reared and released. It

is anticipated these stocking events will assist in the recovery of these species. However, overall fish production was less in 2020 compared to recent years due to a personnel shortage related to the COVID-19 pandemic. Additionally, a new broodstock conditioning facility was constructed at CPMC by renovating an existing greenhouse. Unfortunately, Hurricane Sally destroyed the greenhouse shortly after the renovation was completed.

Staff continued the use of gillnets, otter trawls, and seines to gather information about the relative abundance and age of a variety of recreationally and commercially important marine fish species. Staff conducted 183 field days using the sampling equipment. Gillnet sets were deployed on 88 days, and 95 days were used for seine and otter trawl sampling activities. This sampling provided helpful data for establishing population trend information for a variety of species including those that are key indicators of ecosystem health as well as those that have commercial or recreational value. These sampling activities began in 1981, and the data represents one of the oldest continuous datasets of its kind as compared to those of the other four Gulf states. A multi-year grant from the National Fish and Wildlife Foundation (NFWF) supported multiple projects managed by Section staff. These projects included sampling reef fish associated with artificial and natural reefs, sampling open water bottoms with hook and line gears, and mapping 75 square miles of water bottoms with side-scan sonar. These programs provided valuable data that is used to help manage Alabama's marine fisheries. Additionally, NFWF provided funding to conduct a cultural resource assessment of 101 square miles of water bottoms offshore of Alabama. The cultural resource assessment was a requirement for a federal permit request to allow artificial reef construction projects along the seabed within the assessed area. Approval of this permit request will increase the size of Alabama's artificial reef program and provide increased fishing opportunities while helping to maintain the state's coastal economy.

Staff continued artificial reefing activities to enhance the availability and quality of reef fish habitat and provide increased recreational/commercial fishing opportunities. During FY 2019-2020, 332 reef modules and a cleaned shrimp vessels were deployed to create nearshore and offshore artificial reefs. Reef GPS coordinates to those sites were published on the ADCNR website, and on outdooralabama.com. Staff also inspected and permitted 374 reef structures proposed by private reef builders. Each structure was evaluated to ensure compliance with the U.S. Army Corps of Engineers and the Gulf States Marine Fisheries Commission's Guidelines for Marine Artificial Reef Materials, 2nd Edition.

In cooperation with the Gulf States Marine Fisheries Commission (GSMFC) and the other four Gulf states, staff completed a study to improve the quality and accuracy of commercial landings data. The group collected and analyzed brown and white shrimp samples to validate, verify, and update factors used to convert reported weights and units from seafood dealers to whole (live) weight for the species. The development of updated conversion factors will allow commercial landings to be reported accurately in a common currency for use in fisheries stock assessment and management.

ENFORCEMENT SECTION

During FY 2019-2020, MRD enforcement officers conducted 3,103 commercial fishermen inspections, 13,414 recreational fishermen inspections, 13,310 patrol hours, and 4,659 vessel boardings.

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

MRD Enforcement entered into the 19th 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 Section received two four-year grants, both funded with monies from the Deepwater Horizon Oil Spill. The first grant, Coastal Alabama Sea Turtle (CAST) Protection: Enhancement and Education project, is aimed at collecting data related to sea turtle nesting and protecting those nests from human interaction. A secondary aim of the CAST grant is to help educate the public about the dangers of interfering with sea turtles during the vulnerable nesting periods. To help with this, the Section purchased two portable camera systems that are connected to the Coastal Remote Monitoring system. To aid with the enforcement and data collection, two side-by-side utility vehicles (with trailers) were also purchased with grant funds. The second grant awarded under this plan was the Alabama Estuarine Bottlenose Dolphin Protection: Enhancement and Education. This grant provides funds for educational materials to help limit negative dolphin and human interactions and supports enforcement issues associated with these interactions.

The Section continued work with the Southern District of Alabama Environmental Crimes Task Force. This partnership allows multiple agencies to provide a wide range of skills and manpower to enforce state and federal laws. The Section also participated in the South Alabama Regional Search and Rescue group to provide regional search and rescue. During FY 2019-2020, 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 Enforcement Officers also participated in 16 different outreach and education events. These events provided 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. In 2021, two additional species of reef fish will have mandatory reporting for recreational anglers.

The health and production of Alabama's public oyster reefs continue to be a significant concern. Several oyster projects will begin in 2021 with a priority being construction of an oyster hatchery addition to the CPMC and a larval setting facility on Dauphin Island. These facilities will assist in recovery and rehabilitation efforts by producing larval oysters to stock on Alabama's reefs, to supplement natural production.

In response to the 2019 flooding events that impacted the Gulf states and to marine fisheries issues associated with the COVID-19 pandemic, MRD will continue to work with the federal government to develop a plan for administering disaster relief funding for Alabama's commercial fisheries.

MRD will continue to address infrastructure damage caused by hurricanes Sally and Zeta. Both the Dauphin Island and Gulf Shores offices required multiple construction projects related to the storms that will continue into 2021. Additionally, surveys will be conducted to understand the impacts of those hurricanes on Alabama's Artificial Reef System.

Marine Resources 2020 Budget	FUND 0303		FUND 1402	
BUDGETED ITEM	BUDGET	EXPENDITURES	BUDGET	EXPENDITURES
PERSONNEL COSTS	\$3,209,629.00	\$2,876,292.50	\$678,511.00	\$82,881.68
EMPLOYEE BENEFITS	\$1,373,560.00	\$1,281,527.93	\$313,752.00	\$39,598.14
TRAVEL- IN-STATE	\$23,448.00	\$6,635.10	\$10,000.00	\$-
TRAVEL OUT-OF-STATE	\$32,000.00	\$14,137.51	\$2,000.00	\$-
REPAIRS AND MAINTENANCE	\$457,818.00	\$52,909.91	\$2,000.00	\$55.64
RENTALS AND LEASES	\$46,000.00	\$30,971.81	\$3,000.00	\$9.00
UTILITIES AND COMMUNICATION	\$290,000.00	\$190,026.90	\$28,250.00	\$341.52
PROFESSIONAL SERVICES	\$493,773.00	\$194,746.46	\$135,732.00	\$17,786.58
SUPPLIES, MATERIALS & OPERATING EXPENSES	\$947,755.00	\$448,772.65	\$283,221.00	\$3,244.74
TRANSPORTATION EQUIPMENT OPERATIONS	\$629,498.00	\$239,739.10	\$93,769.00	\$11,844.16
GRANTS AND BENEFITS	\$5,237,734.00	\$2,593,070.90	\$563,101.00	\$69,418.55
CAPITAL OUTLAY	\$12,801,438.00	\$1,462,779.25	\$465,414.00	\$-
TRANSPORTATION EQUIPMENT PURCHASES	\$340,000.00	\$232,988.09	\$150,000.00	\$-
OTHER EQUIPMENT PURCHASES	\$1,427,299.00	\$451,600.30	\$574,350.00	\$103,118.74
ADMINISTRATIVE TRANSFER	\$800,000.00	\$688,964.00		
TOTAL	\$28,109,952.00	\$10,765,162.41	\$3,303,100.00	\$328,298.75

(NUMBERS FROM STATE OF ALABAMA BUDGET MANAGEMENT REPORT, BUDGET FISCAL YEAR 2019 THROUGH SEPTEMBER 30, 2020)



THE CLAUDE PETEET MARICULTURE CENTER

AN INTEGRAL PART OF MRD'S RESEARCH, ENFORCEMENT AND EDUCATION EFFORTS



By Colonel Scott Bannon, MRD Director

The **Claude Peteet Mariculture Center (CPMC)** in Gulf Shores is a state-of-the-art hatchery facility designed to benefit all Alabamians through its support of the state's Gulf Coast fisheries. It has been an instrumental part of MRD's fisheries research and development and education efforts since the early 1970s. The CPMC was created through a donation from Mildred Case in 1970 of 40-acres adjacent to the Gulf Intracoastal Waterway. The facility has provided for the production and release of millions of juvenile fish since it opened. The land remains a part of the MRD as long as fish are raised onsite.



After the property was acquired by MRD, 35 small ponds (0.2 acre each) were constructed, and a groundwater well was installed to fill those ponds. A pipeline was installed a short time later to utilize the brackish water available from the Intra-coastal Waterway. After the pipeline was installed, the ponds were lined with high-density polyethylene (plastic) to prevent seepage into the groundwater and then filled with brackish water. Greenhouses with tanks and recirculating water systems were also installed at the facility. Striped bass were the first fish cultured onsite. Since then a variety of other species have been cultured at the facility, including spotted seatrout, red drum, and red snapper.

In 2004, a 6-inch saltwater supply line that runs approximately 2 miles from the Gulf State Park Pier and under the Intra-coastal Waterway was installed. The facility can now store and treat 20,000 gallons of full-strength seawater onsite, which allows MRD to culture other saltwater species. Beginning in the mid-2000s, shrimp and Florida pompano were the primary species cultured at the CPMC.

The facility was upgraded again in 2013 with a new 23,000-square-foot building housing rooms for broodstock (fish used in aquaculture for breeding purposes) maturation, spawning, egg incubation, larval rearing, juvenile holding and algae and live foods production. The upgrade allows MRD staff to control environmental conditions such as temperature and light in order to best maintain the reproductive cycle of the fish. Juvenile fish production occurs in a variety of indoor tanks within the facility, which has a total capacity of nearly 20,000 gallons.

During 2020, three species of fish were cultured at CPMC and released into local waterways, including spotted seatrout (59,000 fish), Florida pompano (23,500 fish), and southern flounder (12,000 fish). Collection of broodstock is a continuous hatchery activity as fish die or become less productive over time. The collection of adult fish has recently become a collaborative effort between MRD staff, local fishing guides, and anglers participating in local fishing tournaments. Permits are issued by MRD to anglers that allow for fish to be caught and kept alive for transfer to the facility. Local tournament organizers have created live fish categories for this purpose with each fish being donated to MRD. Participation by the public in this effort is

a cost-saving measure and provides an opportunity for Alabamians to help enhance these natural resources.

Southern flounder, a popular target of inshore anglers, was recently added to the spawning program at CPMC. This species was selected because of a dramatic decrease in its abundance over the last decade. It is hoped that the release of juvenile flounder, in addition to recent size and bag limit changes, will help to improve its abundance in the coming years.

A challenge with spawning southern flounder is that the male flounder who short-lived (about a four-year lifespan), tends to move offshore at an early age, and does not yield large quantities of sperm. This requires a relatively large number of males to be maintained on-site in order to have enough sperm available for fertilization when females are ready to release their eggs. MRD is working with Auburn University to determine the best method for freezing and storing the collected sperm with the intention of creating a large, genetically diverse repository to be used in future spawning efforts at the hatchery.

An oyster hatchery is currently under development at the CPMC to provide for the spawning of oysters. The free-swimming oyster larvae produced at the facility will be placed in grow-out tanks on Dauphin Island so they can attach to recycled oyster shells. After a short period of time in the tanks, the oyster shells containing the juvenile oysters will be transferred to Alabama's historic public oyster reefs to assist with ongoing oyster restoration projects in the state. Restoration and enhancement of Alabama's oyster reefs will provide valuable habitat and foraging areas for many recreational and commercially important marine species as well as help improve water quality.

Many of the hatchery activities conducted at CPMC are funded through the Sport Fish Restoration Program of the U.S. Fish and Wildlife Service. Funding for that program is generated through excise taxes on fishing equipment and marine fuel (paid for by anglers and boaters) as well as fishing license revenue. Funding for MRD's oyster projects is provided through Alabama's portion of the Deepwater Horizon Oil Spill Natural Resources Disaster Assessment funds. ■

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 276,624 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 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 Data-

base maintained by the SLD. This effort, which includes more than 4 million records, 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, 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, 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

(ACAMP). 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 for Coastal Management within the Department of Commerce. The ACAMP, as well as research activities and educational programs at the Weeks Bay National Estuarine Research Reserve, 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 its Coastal Section, which includes the Coastal Zone Management Program, Weeks Bay Reserve, and the 5 Rivers Delta Resource Center. At the end of FY 2019-2020, SLD employed 77 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 \$28.9 million in revenue for distribution to several state agency beneficiaries including, but not limited to, the Alabama Trust Fund (\$24.1 million), Department of Education (\$1.71 million), Department of Corrections (\$334,676), Alabama Historical Commission (\$109,181), and Department of Mental Health (\$93,657)
- Examples of Asset Management activities included:
 - Assisted 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
 - Administered 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
 - Implemented reforestation activities on various tracts to provide potential future revenue streams for state beneficiaries, including the Department of Education and the General Fund
 - Completed a statewide bid process, offering 145 tracts of state-owned land in 30 counties for 5-year hunting leases. More than 220 bids were received resulting in execution of 120 hunting leases. Over their 5-year term, these leases are expected to generate more than \$1.46 million for state beneficiaries.

FOREVER WILD LAND TRUST ADMINISTRATION ACTIVITIES

- Administered the acquisition of 13 tracts across eight counties and performed one land exchange in Baldwin County (to provide enhanced public access) adding a total of 6,382.07 acres to the program. The acquisitions and land exchange include the following:
 - Beaverdam Swamp (497.11 acres, Limestone County)
 - Blakeley Land Swap (net 3.15-acre loss / equal appraised value exchange, Baldwin County)
 - Blackwater River South Tract (2,269.11 acres, Baldwin County)
 - Cahaba River-Mohon Tract (351 acres, Bibb County)
 - Cahaba River-Savage Creek Tract (311 acres, Shelby County)
 - Monte Sano State Park-McComb Addition (121 acres, Madison County)

- Portland Landing SOA-Gilmore Addition (317 acres, Dallas County)
- Red Hills-Baucom Addition (20 acres, Monroe County)
- Red Hills-Brown Schutt Additions (570 acres, Monroe County)
- Red Hills-Flat Creek Phase I (370 acres, Monroe County)
- Red Hills-Flat Creek Phase II (53 acres, Monroe County)
- Red Hills-Flat Creek Phase III (998 acres, Monroe County)
- Red Hills-Section 2 (330 acres, Monroe County)
- Skyline Wildlife Management Area (WMA)-Crow Mountain Addition (178 acres, Jackson 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 40 Forever Wild Land Trust tract nominations

FOREVER WILD RECREATIONAL AND LAND STEWARDSHIP ACTIVITIES

- Managed physically disabled and youth hunting programs providing 14 days of hunting opportunities, and hosted 28 sporting dog field trial/hunt tests involving more than 1,500 sporting dogs at the M. Barnett Lawley Forever Wild Field Trial Area in Hale County. These events brought more than 2,750 visitors to the tract and surrounding areas.
- Hosted 1,427 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 36 open gate days during hunting season on the following Forever Wild tracts: Red Hills (Monroe County), Old Cahawba (Dallas County), Splinter Hill Bog (Baldwin County), and Lillian Swamp (Baldwin County)
- Maintained approximately 388 miles of public recreation trails for activities such as horseback riding, hiking, biking, canoeing, and multi-use trails and boardwalks on the following Forever Wild tracts: 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-Tensas 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)

- Continued progress on an Alabama Department of Economic and Community Affairs (ADECA) Recreational Trails Program grant that provided \$137,000 in funding to replace two footbridges located on the Walls of Jericho hiking trail in Jackson County
- Implemented prescribed burns and constructed 20 horse stalls for use during field trial events at the Forever Wild Field Trial Area in Hale County
- Repaired a 30-foot footbridge at the Coon Creek Tract in Tallapoosa County after it was moved from its footings during high water events in March 2020
- Partnered with the Tannehill Ironworks Historical State Park in Tuscaloosa County to remove debris from the adjacent Forever Wild Land Trust property so the tract can be better utilized by the public
- Continued a citizen science habitat monitoring project (Project Habitat Watch) at Grand Bay Savanna, Wehle Land Conservation Center, and Old Cahawba Prairie by inviting visitors to these locations to photograph the habitat from a fixed camera bracket and share via social media. This will create a long-term photo documentation of the landscape.
- Performed prescribed fire on more than 2,130 acres as part of maintaining or enhancing the natural plant communities on various Forever Wild tracts. These fires were conducted in partnership with personnel from the Weeks Bay Reserve and 5 Rivers Delta Resource Center, as well as ADCNR's Wildlife and Freshwater Fisheries Division.
- 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 285 acres of longleaf pine on Barbour WMA and 186 acres of longleaf underplanting on Wehle Land Conservation Center
- Initiated reforestation of 285 acres of shortleaf pine on Freedom Hills and Lauderdale WMAs and 174 acres of longleaf pine on the Charles D. Kelley-Autauga County WMA
- Initiated a 1,100-acre sale of eastern red cedar on Cedar Creek SOA in Dallas County for habitat enhancement in cooperation with ADCNR's Wildlife and Freshwater Fisheries Division

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 Geographic Information System (GIS) server software, allowing greater transparency of Forever Wild holdings and ADCNR facilities to the public by providing an interactive map online ([http:// conservationgis.alabama.gov/fwlt/](http://conservationgis.alabama.gov/fwlt/)). This software is also being used to improve geographic information transmission within the Division and the Department.
- Maintained the Natural Heritage Section (NHS) database, which is partially funded by a State Wildlife Grant. The database is accessible via a secure internet website for more than 785 approved users, and currently contains more than 4 million records of plant and animal species occurrences throughout Alabama.
- Continued to enhance the Alabama Natural Heritage Section Herbarium with a current total of 7,000 specimens – most of which have been digitized, photographed, and databased
- Continued coordination of Section 6 funding from the U.S. Fish and Wildlife Service to support at-risk plant species. In the second year of this program, SLD administered approximately \$88,000 in federal matching funds, including subawards to Alabama universities to conduct research on five at-risk plant species.

GULF OF MEXICO ENERGY SECURITY ACT (GOMESA) ACCOMPLISHMENTS

- Continued to provide administrative support to the GOMESA program by overseeing the disbursement of funds and providing support to the awarded entities
- Solicited project suggestions from the public in January 2020, and received more than 60 proposals for GOMESA funding, resulting in 16 awards totaling more than \$40 million for the following projects:
 - Blackwater North Land Acquisition (The Conservation Fund/ADCNR - \$3,720,000)
 - Brookley Bayfront Preserve Land Acquisition (City of Mobile - \$16,000,000)
 - Brooks Landing Public Access Enhancements (City of Chickasaw - \$275,000)
 - GulfQuest Exhibit and Educational Content Improvements (City of Mobile - \$77,000)
 - Intracoastal Waterway Public Access Enhancements (Baldwin County Commission - \$2,600,000)
 - Little Billy Goat Hole Public Boating Access Improvements (Dauphin Island Park and Beach Board - \$450,000)
 - Manatee Sighting Network (Dauphin Island Sea Lab - \$149,900)

- Marine Science Research Vessel (Dauphin Island Sea Lab - \$3,250,000)
- Mobile County Park Enhancements (Mobile County Commission - \$3,500,000)
- Nature Parks Expansion and Enhancements (City of Foley – \$3,000,000)
- Oyster Enhancement Project in Little Dauphin Bay (Auburn University Shellfish Lab - \$633,500)
- Sewer Infrastructure Improvements in Bayou la Batre (Bayou la Batre Utilities Board - \$2,400,000)
- Sewer Infrastructure Improvements in Mobile County (Mobile County Water, Sewer, and Fire Protection Authority - \$3,700,000)
- Steele Creek Lodge Public Access Improvements (City of Satsuma - \$1,024,000)
- Three Mile Creek Boat Launch Construction (Mobile County Health Department - \$150,000)
- Weeks Bay and Fish River Boat Ramp Parking Improvements (ADCNR - \$550,000)

COASTAL ZONE MANAGEMENT SECTION ACCOMPLISHMENTS

The Alabama Coastal Area Management Program staff provided technical support, funding, and oversight for 17 subawards benefiting projects and activities in Mobile and Baldwin counties. These subawards, totaling more than \$429,139 in federal funds provided by NOAA, supported the following:

- Promoted sustainable tourism and improved public access in Alabama’s coastal area through the Alabama Gulf Coast Convention and Visitors Bureau
- Supported multiple municipal planning efforts, including comprehensive planning, zoning and mapping updates, stormwater management, subdivision regulation updates, and public access improvements (City of Foley, City of Semmes, City of Satsuma, and City of Gulf Shores)
- Continued integration of the Alabama Coastal Nonpoint Pollution Control Program into the Mobile Bay National Estuary Program Comprehensive Conservation and Management Plan
- Provided 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
- Administered the Coastal Geospatial Data Group by the Geological Survey of Alabama to increase opportunities for data sharing and to improve management of coastal resources

- Sponsored and organized the 33rd annual Alabama Coastal Cleanup in partnership with the Alabama People Against a Littered State, providing volunteers and supplies to clean waterways and shorelines across Alabama. Coastal Section staff also provided supplies and support for Hurricane Sally relief efforts in Baldwin County.

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 nearly 200 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, in addition to processing dredge permits and riparian easements.
- Received three applications for off-bottom oyster farms and issued three Shellfish Aquaculture Easements as part of Alabama’s Shellfish Aquaculture Program, which promotes the cultivation and harvesting of hatchery-spawned oysters for commercial purposes. More than 50 acres of off-bottom Shellfish Aquaculture Easements have been permitted since 2014.

5 RIVERS DELTA RESOURCE CENTER ACCOMPLISHMENTS

- Hosted 19,919 visitors
- Provided educational programs about the importance of the Mobile-Tensaw Delta and Alabama’s statewide ecology and biodiversity to over 3,550 participants in onsite field trips and over 3,800 individuals engaged at offsite events. Designed nine home-based projects for families with virtual learning students to do from their own backyards.
- Enhanced two exhibits in Apalachee Exhibit Hall, displayed three traveling photography and artwork exhibits, and created 50 outdoor interpretive signs around the facility
- Hosted 216 receptions and business meetings with 16,012 participants and continued to provide a venue for ADCNR hunter education programs and various public meetings conducted by local conservation organizations
- Continued to organize and host the Outdoor Market event at the Cypress Gift Shop, showcasing local community vendors. Seven market events drew an average of 33 local vendors per event and an estimated 1,911 total visitors.
- Partnered with Historic Blakeley State Park to provide boat tours for the public. During these guided cruises, 923 passengers explored topics of history, ecology, photography and birding.



- Received Level 1 Accreditation from the ArbNet Arboretum Accreditation Program and the Morton Arboretum, making 5 Rivers one of 2,068 sites in the world to receive this recognition for achieving standards of professional practices specific to tree-focused public gardens
- Installed pollinator garden enhancements throughout the property with seasonal nectar sources for butterflies, moths, bees, and hummingbirds. Received designation as an official Monarch Migration Station from monarchwatch.org
- Hosted approximately 700 participants at the 11th annual 5 Rivers Halloween Trick or Treat event.
- Hosted two 5K fundraising trail runs with approximately 400 runners participating
- 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 community events
- Worked with visual media outlets and nonprofits to highlight recreational opportunities and local ecology, including the Mobile Bay National Estuary Program's video "A Virtual Tour of the Mobile-Tensaw River Delta"
- Supervised planning and implementation of two Eagle Scout projects
- Implemented prescribed fire on 10 acres to enhance nutrient recycling, minimize undergrowth in pine stands, and promote the growth of native grasses and other plant species. Continued chemical and mechanical efforts to control exotic plant species, especially Cogongrass and Chinese tallow tree throughout the property
- Continued to manage and maintain the Bartram and Perdido River canoe trails, the Alabama Coastal Birding Trail, and two Battleship Parkway boat ramps. Canoe trail camp shelters were reserved more than 200 times during the fiscal year.

WEEKS BAY NATIONAL ESTUARINE RESEARCH RESERVE ACCOMPLISHMENTS

- The Weeks Bay National Estuarine Research Reserve hosted approximately 2,500 visitors and was involved in a number of administrative activities including:
 - Conducted quarterly meetings of Weeks Bay Advisory Committee and coordinated with the South Alabama Land Trust (formerly 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
 - Installed solar photovoltaic panels on the Tonsmeire Resource Center to reduce energy consumption
 - Worked with state and federal partners to complete

two land acquisition projects within the Weeks Bay Reserve acquisition boundary. NOAA acquisition funds leveraged Deepwater Horizon NRDA funds to purchase the 166-acre East Gateway tract at the mouth of Weeks Bay. NRDA funds were also used to purchase the 91-acre Holmes Tract on the Magnolia River.

- The Reserve's Education and Coastal Training program activities included the following:
 - Conducted education programs for approximately 300 students (1,034 contact hours) and 2,842 adults
 - Produced virtual education field trips, social media story time events, and Squeaky Sneakers Estuary Art Lessons reaching thousands of online participants
 - Facilitated an Alabama Backyard Bioblitz event using iNaturalist, reaching 181 participants statewide
 - Facilitated citizen science microplastics sampling and participated in monthly nurdle surveys as part of the Gulf Nurdle Patrol (<https://nurdlepatrol.org/>)
 - Conducted 11 workshops for 528 coastal decision makers, providing 2,876 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 10 research projects
 - Collected water quality and weather data from five sites in Weeks Bay as part of the Reserve's system-wide monitoring program
 - Hosted a volunteer intern who participated in research and stewardship projects, assisted with educational programs, and organized systematic botany training for staff and other volunteers
 - Hosted 441 guest nights in the research dormitory including researchers, GulfCorps volunteers, workshop participants, visiting educators, and Hurricane Sally relief workers
 - Trained GulfCorps members in the use of Real Time Kinematic GPS and digital leveling equipment to assist with collecting data to enhance elevation models of marsh habitat at the Reserve
 - 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 South Alabama Land Trust, ACAMP, and NOAA's Marine Debris program to install educational signage at area boat ramps to help prevent derelict vessels
- Provided interpretive vessel tours of the Weeks Bay Estuary for 365 visitors
- The Reserve's volunteer program continued to be a critical source of operational and financial assistance, providing volunteer support for Reserve activities, including the following:
 - Conducted volunteer orientation and continuing education for volunteers
 - Provided volunteers to support Reserve education programs and greet visitors at the exhibit center
 - Provided financial and logistical support for Reserve-supported activities including workshops, research projects, and special events

WEHLE LAND CONSERVATION CENTER/ ELHEW FIELD STATION ACCOMPLISHMENTS

- Hosted 353 students, educators, and associates over five weeks of environmental outreach programs for 4th-7th grade students from Bullock County and surrounding county schools
- Hosted 351 visitors during 16 open trail weekends
- Hosted 211 visitors associated with state and county agency meetings, technical workshops, and organized field trips
- Hosted 168 students and teachers at the Bullock County Water Festival
- Hosted 93 youths and adults for the Annual 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

- Administered USGS Breeding Bird Survey in Alabama
- Monitored and oversaw management actions for red-cockaded woodpecker population on the Forever Wild Coosa WMA
- Continued operation of a Monitoring Avian Productivity and Survivorship (MAPS) banding station on the Wehle Forever Wild Tract for the 15th year
- Continued long-term reptile and amphibian inventory through passive capture techniques 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 and Northern bobwhite covey count surveys on the Wehle Forever Wild Tract
- Continued gopher tortoise population monitoring on the Wehle Forever Wild Tract to evaluate establishment/site retention of translocated individuals
- Published findings from select Elhew Field Station research projects and/or partnerships in peer-reviewed journals
- Conducted a prescribed burn on 186 acres of the Wehle Forever Wild Tract as part of maintaining or enhancing the natural plant communities for the benefit of several associated wildlife species
- Constructed large ephemeral pond to facilitate future gopher frog introductions on the Wehle Forever Wild Tract
- Assisted Auburn University with planting of 139 containerized American chaffseed plants in an effort to re-establish a viable population on the Wehle Forever Wild Tract. This restoration effort is funded in part by a Section 6 plant grant administered by SLD.
- Initiated trapping efforts to manage feral hog populations for the benefit of habitats and native wildlife at the center

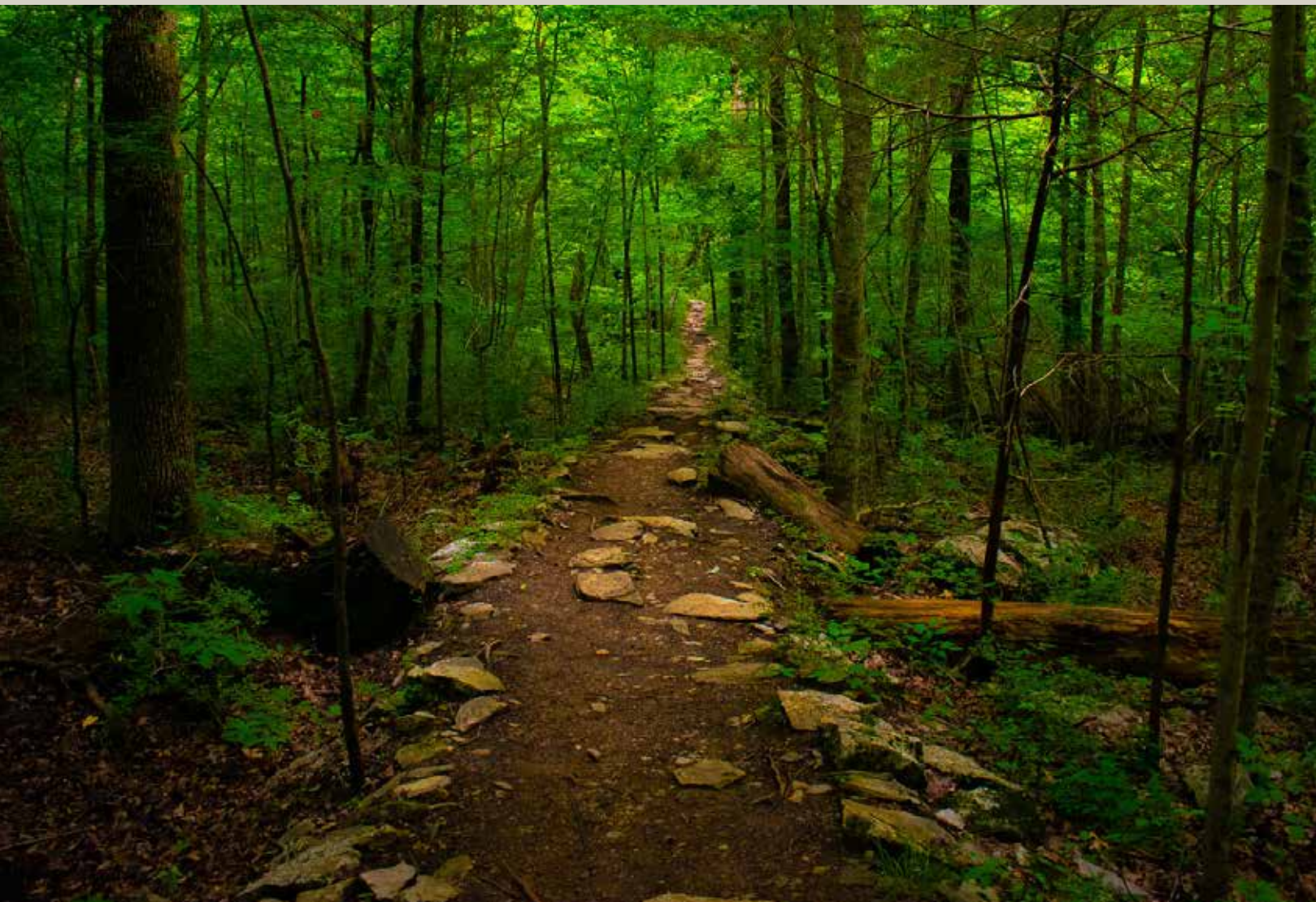
STATE LANDS 2020 BUDGET AND EXPENDITURES

Section Name	Budget	Expenditures
Land Management & Stewardship Activities	\$9,733,149	\$6,288,328
Administrative Transfer to Department	\$960,000	\$766,906
Coastal Zone Management Program	\$1,973,000	\$1,640,800
Weeks Bay National Estuarine Research Reserve	\$2,469,825	\$1,345,165
Total per State Lands Fund	\$15,135,974	\$10,041,199
Forever Wild Land Trust Fund	\$19,558,774	\$26,895,898
Forever Wild Stewardship Fund	\$1,500,000	\$817,114

NOT JUST ANY WALK IN THE PARK

STATE LANDS DIVISION AND PARTNERS COMPLETE MAJOR TRAIL UPGRADES AT THE WALLS OF JERICHO FOREVER WILD TRACT

It is easy for anyone who spends time on public lands to occasionally take trails for granted. But a great trail system takes significant planning and ongoing maintenance. The COVID-19 pandemic has clearly illustrated the importance of having unique places to get outside and enjoy the fresh air while practicing social distancing. One site that experienced a significant increase in visitors during 2020 was the Walls of Jericho Forever Wild Tract in Jackson County. It is also the site where the State Lands Division (SLD) recently completed a unique trail project in conjunction with other state agencies, two universities, a federal grant, some State Troopers, and even a helicopter.



The Walls of Jericho trail system first opened in 2004 with both a hiking and a horseback trail. Since then, SLD has constructed an additional hiking trail and expanded the original trails to give the system 22.7 miles of hiking and horseback riding trails. The original hiking trail requires hikers to descend about 1,000 feet into a canyon and cross Hurricane and Turkey creeks before entering the hollow formally referred to as the Walls of Jericho. During the original trail construction, locally sourced trees were used to build creek crossings for hikers. After many years of use, these popular crossings began to decay and were prone to shifting during high-water events at both.

In 2018 State Lands received a \$109,600 grant through the Alabama Department of Economic and Community Affairs' Recreational Trails Program (RTP) to replace the two log footbridges and to make improvements to the horseback and hiking trail-heads. Funding for RTP grants is provided by the U.S. Department of Transportation's Federal Highway Administration. Each RTP grant required that a minimum of 20% of the total project cost be paid with state-sourced matching funds. In accordance with Amendment 543 of Alabama's State Constitution that established the Forever Wild Land Trust (FWLT), the FWLT Board of Trustees must deposit into the program's Stewardship Account an amount equal to 15% of appraised value for each tract purchased to ensure ongoing funding for necessary land management activities and tract enhancements. Accordingly, Forever Wild contributed \$29,081 to provide the state matching funds required by the RTP grant.

The RTP grant funding allowed State Lands to consider more durable bridge materials that could be installed at a greater height to better withstand the frequent high-water events at the creek crossings. After much research, SLD identified a bridge system utilizing fiber-reinforced polymer (FRP) materials. FRP bridges are lightweight and portable, with the bridge being manufactured in multiple segments designed for on-site assembly. The portability feature was key to selecting the FRP bridges. Due to limited vehicle access over difficult terrain, the more common metal single-piece type of bridge simply was not a viable option for this project.

In fact, vehicle access from the closest paved road to the worksite requires a two-hour round trip with the last 5 miles descending steep, rocky roads that must also be ascended to return to the roadway. Due to the difficulty of accessing the worksite, taking in large trailers loaded with heavy equipment and materials was not a viable option for the project. Faced with this dilemma, SLD turned to the Alabama Law Enforcement Agency (ALEA) for help. ALEA immediately offered the services of a Bell UH-1 helicopter and State Trooper pilots to transport most of the bridge materials approximately 9.5 air miles from the James D. Martin Wildlife Management Area check station to the project site. With ALEA's help, the bridge materials were moved to the worksite in less than eight hours, saving an estimated week or more in transportation time and expenses. In addition to making this Forever Wild project possible, the ALEA pilots also gained valuable hours of load training, benefiting future public safety operations.

Before bridge construction began, SLD also needed to complete all regulatory requirements, including obtaining cultural resources surveys. Staff from Troy University and the University of Alabama conducted Phase I and Phase II cultural resource surveys where the bridge supports were to be installed. After using these surveys to ensure that construction activities would not negatively impact any historically significant features or artifacts, staff began installing the bridge supports on both sides of the creeks. The sites presented similar construction challenges. Each had a high bank requiring a short support and a low bank requiring a tall support. Staff hand-mixed approximately 80,000 pounds of concrete to build the bridge supports.

After the supports were completed, staff assembled the FRP bridge segments. Without access to lifts or cranes, staff built temporary supports across the creeks allowing the individual bridge segments to be laid in place and bolted together. Once all the bolts were tightened, the temporary supports were removed to reveal two impressive self-supporting bridges, each spanning 60 feet across a creek. Wooden staircases were built on the ends of the bridges to provide access for hikers. As the final touches were being added to the bridges, SLD staff also upgraded the entire 22.7-mile Walls of Jericho trail system with new trail markings and signage to improve the tract's user experience.

The original log creek crossings certainly added a unique feature seen on few other Alabama trails and were constructed without the need to locate an available helicopter. However, with the Walls of Jericho Forever Wild trail receiving more than 8,000 visitors annually, the new bridges will provide a modern and more sustainable amenity for many years to come. The new bridges also offer safety railing on either side to benefit users who may have children or pets on the trail. SLD hopes that visitors to the Walls of Jericho trail will come to see the new crossings as unique aspects of the trail. And perhaps some of the visitors will stop and think to themselves, "What a nice bridge. I wonder how they got it all the way down here?" ■



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.

During FY 2019-2020 our park system experienced many challenges and changes associated with the COVID-19 pandemic as well as multiple natural disasters. Business operations were repeatedly modified to deal with these circumstances and comply with multiple orders from the State Health Officer and directives from our Governor. In addition to those unplanned challenges, the park system was able to maintain multiple major renovations and improvement projects as well as a planned transition and upgrade to the park system's reservation program. Throughout the year, State Park personnel adapted to the changing dynamics of multiple situations and served a record number of park guests who were seeking safe exercise opportunities and respite outdoors. Park personnel served with distinction and are a credit to Alabama's commitment to outdoor recreation and tourism.

Accomplishments

Alabama's 21 State Parks average 5 million guests annually; however, in FY 2019-2020 our park system served a record 6.2 million guest occurrences. 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 renovation 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's central office in Montgomery includes five sections: Management Analysis, Operations, Promotions, Natural Resources, 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 \$50,500,000 in receipts and approximately 14,000 payments; and disbursed approximately 13,992 payments to vendors and approximately 13,362 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 to develop detailed monthly financial statements of the State Parks system. Additionally, the Section continues to revise resale inventory procedures to promote better accountability.

OPERATIONS

The Operations Section supervises five district supervisors for 21 State Parks, including 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 one full-time employee. 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.

Accomplishments

- Changed daily operations at the parks in an effort to safeguard the public and employees from exposure to COVID-19
- Secured additional supplies to sanitize work areas and public areas as well as protect workers during the pandemic
- Increased receipts 4% statewide over previous year, even during pandemic
- Deployed five strike teams to clear debris, open roads/campsites after Hurricane Sally
- Deployed strike teams to Cheaha, Roland Cooper, Paul Grist, Meaher to clear roads and debris after Hurricane Zeta and to complete temporary repairs to damaged structures
- Deployed two strike teams to Joe Wheeler to clear roads and debris after December 2019 tornado touchdown in day-use area and campground
- Trained and implemented new camping reservation system

North Region - Joe Wheeler

- Renovated two cabins using park employee labor
- Renovated marina store
- Stained the outside of facilities (marina, country store)
- Replaced dining room chairs
- Added security cameras to boat ramp

- Installed new pump-out at marina
- Added satellite TV in hotel rooms
- Opened new 8-mile hiking/biking trail under RTP grant
- Completed plans and bid project to renovate campground (Barge Engineering)
- Renovated campground store with labor provided by several volunteers, who also assisted in completing new trail (funding provided through Alabama State Parks Foundation)
- Replaced damaged sewer pumps at Lodge
- Repaired southside dock that was damaged by large tree
- Cleaned up more than 60 acres of tornado damage through a special state budge appropriation
- Seeded grass on more than 20 acres damaged by tornado

Monte Sano

- Installed new picnic tables and fire pits
- Replaced siding on cabins
- Opened new trail shelter for mountain bike races and other events under RTP grant

Cathedral Caverns

- Constructed new ADA accessible gem mine with increased occupancy
- Designed, bid, and started development of new campground site under ARC grant

Rickwood Caverns

- Purchased additional Christmas decorations for special cave tours during the holidays
- Replaced aging electromagnetic switch in cave
- Replaced old pool pump

Lake Lurleen

- Constructed new trail using donation from Alabama State Parks Foundation
- Repaired partial area of campsite decking and added new signage

Oak Mountain

- Installed new roof on park office and Tree Top cages
- Replaced stoves, refrigerators, and hot water heaters in cabins
- Reroofed Donahoe staff house
- Replaced wastewater pump
- Completed Phase II road project (partnered with Shelby County)

- Installed new roadway signage
- Relocated and renovated utilities at front of park along John Findlay Drive
- Replaced grinder pump in campground

Wind Creek

- Renovated marina store, including new flooring, ceiling, lighting, countertops, all new fixtures, and tile in restrooms
- Recovered a rental boat
- Installed new countertops and fixtures in seven restrooms
- Installed new campground gates (two entry, one exit) and new concrete entrance pad
- Renovated two small docks
- Purchased riprap and related supplies to continue shoreline repair
- Purchased new campground and day-use grills
- Reopened section of campground damaged by tornado

Cheaha

- Installed two new water heaters in hotel
- Installed new minifridges and microwaves in 30 hotel rooms
- Installed metal tables and grills for every hotel unit east and west (ADA compliant picnic table and grill for accessible rooms)
- Added community fire pit and picnic area at hotel
- Installed new handrails for chalets with steps (Chalets 12, 13, and 14)
- Updated Chalet 11 with new roof, refreshed exterior with new paint and solar lights on walkways, and refreshed interior with new furniture, new TVs, and new linens
- Installed gas log fireplace units in five cabins and sealed chimney caps to prevent leaks. Additional improvements were made, including new screens on porches, new roofs, and solar lights on all walkways, and new handrails on Cabins 1 and 16 (these cabins have steeper steps).
- Updated Lodge with new roof made of synthetic tiles, installed new gas log fireplace units for lobby and grand hall, installed new kitchen HVAC unit and new upstairs HVAC unit, and installed security gate on Bald Rock Road
- Updated restaurant with two new water heaters, steam table, ice maker, door signs and street-side hours sign that is interchangeable for on-season and off-season hours
- Cleaned old spring, added roof over holding ponds, and installed new pump solving water shortage issue

Guntersville Lodge

- Renovated Cabin 424
- Painted outside of Lodge
- Designed, bid, and started renovations to chalet units
- Remediated mold in 10 Lodge rooms
- Repaired roof and drain in Goldenrod, Camilla and Grand-view rooms
- Cleaned carpet in all banquet facilities, dining room, and Lodge rooms
- Replaced front entrance doors to Lodge
- Replaced hot water boiler and water heater in A wing
- Replaced 80-gallon storage tank
- Sanitized kitchen after shutdown due to COVID-19
- Stripped and waxed all tile floors inside Lodge
- Installed plexiglass in all retail facilities
- Introduced reopening procedures for restaurant and updated sanitation measures and safety protocols for guests and employees during the pandemic
- Added knife blocks and updated cooking utensils in all cabins and chalets
- Repainted and repaired walls in Riverview room 320
- Replaced two ice machines

Guntersville Park

- Installed new dog park, and bid and installed new splash pad under Land and Water Conservation Fund (LWCF) grant
- Repaired Trail of Tears dock
- Replaced split-rail fence at entrance
- Upgraded campground store with energy efficient LED lighting fixtures
- Upgraded Town Creek Store, including flooring, paint, and energy efficient LED lighting fixtures
- Installed LED lighting in park office
- Installed new floating dock and gangway with water and electricity at Town Creek
- Updated Campground F bathhouse with new water heater
- Repainted all campground bathhouse interiors
- Installed new water lines and faucets at Town Creek Horse Trail
- Installed riprap in drainage ditches in campground

- Planted 150 trees courtesy of TVA at Town Creek Campground
- Upgraded D section electrical in campground to 50 amp
- Converted old campground tennis court to basketball court, including new goals and striping
- Upgraded old Marine Police Division dock with operational boat lifts and LED lighting
- Repaired settling of sewer line under main campground road

Buck's Pocket

- Reopened park in June 2020 with all new electrical, water, and sewer infrastructure under Recreational Trails Program grant. Improvements include restored park office, maintenance facility, new ADA compliant bathroom, and new Off-Road Vehicle (ORV) trail
- Installed high-speed Wi-Fi internet access
- Added a new dump station
- Installed new signage
- Repainted and refurbished playground
- Installed park fee machine that takes credit cards for day-use and ORV trail passes

DeSoto Park

- Installed new parking box fee machine at DeSoto Falls
- Renovated DeSoto Falls area, including bringing restroom to ADA standards under LWCF grant
- Purchased new kayaks and took over kayak rentals service
- Updated chalets and log cabins with new bedding and linens and mounted TVs to walls
- Started renovation of structural areas of pool and stopped leaks
- Renovated Cabin 7 using park employee labor

South Region - Blue Springs

- Installed new front entrance gate

Chewacla

- Replaced roof on two bathhouses

Frank Jackson

- Replaced entrance gate
- Replaced siding and underpinning on Cabins 1, 2, and 3



Lakepoint

- Started Phase I cabin renovation for Cabins 4A, 4B, 5, 6A, 6B, 7, 8A, 8B, 9, and 21
- Replaced two main boat ramps
- Repaired beams on Lakeside Cottages

Gulf

- Started Phase I bathhouse renovation for bathhouses 1, 2, 5, 6, 9, and 11
- Completed \$2.7 million pier renovation. The pier was damaged by Hurricane Sally on September 16, 2020.
- Replaced boardwalks leading to the beach at Cotton Bayou, Romar, and campground beach access with labor from park maintenance crew

Future Issues

We will continue to deal with the COVID-19 pandemic, being innovative to keep our operations as safe as possible and open to the public. We are concentrating on areas of our business that are thriving more than ever, such as camping, boating, hiking, and biking. By expanding these areas, we will continue to provide our guests with different ways to enjoy Alabama's State Parks. We are still making changes to improve internet and Wi-Fi capabilities for all parks. Aging facilities continue to be a challenge, but we are working with the Alabama State Parks Foundation to utilize donated monies to make future repairs and renovations.

PROMOTIONS

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 including one Advertising and Marketing Manager, one Marketing Specialist, and one Administrative Support Assistant II.

Administrative functions include coordination of radio and television public service announcements; preparation and distribution of promotional literature; coordination of print and photographic material for magazines, campground directories, and newspaper articles; cooperation and coordination with the Alabama Department of Tourism, chambers of commerce, convention and visitors bureaus, Alabama Department of Transportation (ALDOT) rest areas, tourist associations, and special events promoters; evaluation of advertising opportunities; purchasing of advertising space; production of ads and advertising material; assistance with promotional efforts at individual state parks; special events, various promotional exhibit expos, and continuous updating of photos; presentation of programs for various organizations, and the continued operation of the toll-free nationwide phone line; social media marketing, website management and promotion, digital mobile-ready marketing, development of promotional park videos, and continued pursuit of affordable and effective marketing opportunities.

Accomplishments

- Placed advertisements in statewide magazines including Business Alabama, Alabama Advantage, Alabama Vacation Guide, Gulf Coast Vacation Guide, and Alabama Press Association Directory
- Increased traffic over last year on our website, www.alapark.com. It was our primary source of distributing information and promoting events at the State Parks.
- 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
- Distributed the State Parks e-newsletter to more than 340,000 subscribers each month
- Distributed brochures to various organizations and outlets to inform the public on amenities and features offered at each park
- Partnered with Alabama Tourism to promote travel and tourism in Alabama and to promote Alabama's State Parks as safe and affordable vacation destinations. Distributed brochures to eight welcome centers throughout the state.
- Reopened Buck's Pocket State Park in July after closing the park in 2015. The new ORV trail is the first of its kind for the Alabama State Parks. We plan to open similar ORV trails at other parks in the future.
- Generated a 32% increase in Alabama State Parks car tags and boat registration decals sales over 2019
- Generated more than \$6,000 in membership dues through the Dirt Pass Trail Crew Program and recruited volunteer involvement in the maintenance of our trail system
- Received 19 awards from TripAdvisor based on positive comments and feedback from park guests
- Continued to promote the Parks for Patriots program that offers veterans and active military free admission to our parks throughout the year
- Promoted our concessionaire partnerships in the parks, including cabin rentals, zipline activities, kayak and boat rentals, equestrian facilities, and water cable skiing
- Promoted our Partners Pay the Way campaign to raise awareness of individuals, user groups, civic partners, and elected officials we depend on for donations and funding
- Evaluated and reviewed the Alabama State Parks smartphone app, which will be updated with better tools for park guests and better park maps in 2021
- Utilized our website and social media to inform and educate the public on the status of park facilities, hours of operation, and newly implemented policies and procedures related

COVID-19 PANDEMIC

- Developed a Virtual Naturalist video series during the pandemic as a way to stay in contact with our park visitors. We added 56 videos to our YouTube channel that were created and narrated by our Park Naturalists.

Future Issues

Conference rooms, meeting facilities and other group-use areas experienced the biggest decline in use at our State Parks during the COVID-19 pandemic. Utilizing these spaces will be a priority next year, with plans to increase advertising, improve our relationship with TripAdvisor, and partner with local chambers of commerce and convention and visitors bureaus throughout the state. We will also launch a new online merchandise program in 2021 to include State Park logo branded clothing and other products. Some of these items will be available at the parks in gift shops, camp stores, and marina stores. Proceeds will go to improve facilities and amenities in the parks.

NATURAL RESOURCES

The Alabama State Parks 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, appreciation and enjoyment of those resources. Section staff consist of a Natural Resource Planner in Montgomery and six Interpretive Naturalists in field locations, including DeSoto, Gulf, Lake Guntersville, Cheaha, Oak Mountain, and Cathedral Caverns state parks. The Natural Resources Section had two unfilled positions, with one of those being Chief of the Natural Resources Section. 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

- Continued restoration efforts at Gulf State Park using prescribed fire on 400 acres burned within the campground, around the lakeside cabins Eagle Loop area, and the park's pitcher plant bog. Benefits of these fires are for reduction of fuel around the campground to reduce the wildfire risk, enhancing wildlife habitat by refreshing food and cover sources, controlling brush thickets and keeping the forest canopy open for better visibility and air flow for visitors.
- Continued restoring the existing longleaf/loblolly pine ecosystem by using prescribed fire and forest mulching at Lakepoint State Park. The lack of prescribed fire in recent history allowed the thick understory of competing vegetation to grow, a lack of native grasses, and suppression of natural regeneration from pine seedlings. This year a 40-acre campground area was burned for a second time. The combination of the second burn and forest mulching expedited the long-



term objective for this area, including reducing the density of the young sweetgums. This increases sunlight exposure on the ground and encourages growth of native grasses. These habitat improvements provide new native plant growth that is more nutritious to wildlife and reduces the risk of wildfire.

- Continued restoring longleaf pine habitat at Wind Creek State Park using prescribed fire, including on a 200-acre prescribe section of planted longleaf pine. The restoration project is a collaborative effort between Alabama State Parks, the National Wild Turkey Federation, the Alabama Forestry Commission, and ADCNR's Wildlife and Freshwater Fisheries Division (WFF).
- Continued to facilitate a robust Integrated Pest Management Plan at Meaher State Park to reduce and control the invasive Argentine ant population. The Argentine ant population at Meaher was interfering with guests' enjoyment of the park. The plan has been successful and is allowing park personnel to monitor and identify the areas of the greatest need to target. Additionally, the Section investigated Argentine ant issues at Gulf, Lakepoint, Blue Springs, and Frank Jackson state parks. A long-term treatment plan for Argentine ant populations at those parks will be implemented in 2021.
- Partnered with WFF's Wildlife Section to create a Special Opportunity Area (SOA) at Oak Mountain State Park. This will create additional public access to hunting on public land as well as help with the management of the deer herd in this urban park setting. Section personnel are working with wildlife officials to expand this SOA program in the future.
- Assisted with continued herbicide use to control invasive and undesirable vegetation within State Parks. This management tool was used at several parks, including Gulf, Wind Creek, Frank Jackson, DeSoto, and Oak Mountain in 2020.
- Assisted with land encroachment and boundary line disputes/discrepancies and other conflicts with private landowners. Also continued to work with local and state officials on specific projects regarding State Park land boundary management and projects that could have impacts on the long-term sustainability of our natural resources. The Section continues to develop Alabama State Park deed files to maintain verified boundaries.

- Continued to work with academic researchers to issue permits for conducting research or collecting scientific data within a State Park
- Continued to implement the Natural Resource Management Plan for Gulf Highlands to Gulf State Park. This plan is a vital component needed to fulfill requirements of the National Fish and Wildlife Foundation (NFWF) Gulf Environmental Benefit Fund grant.
- Managed the construction and design phase of the Fort Morgan Parkway Trail Extension grant. The project is a part of the RESTORE Act. We assisted the Deepwater Horizon Section in the completion of the grant application and are working with the engineering firm in obtaining environmental permits.
- Park Naturalists designed new programs for our Department Facebook pages during the COVID-19 pandemic. Program topics included flora and fauna identification, live-stream of hiking trails, habitat needs and management, and more. Park Naturalists entertained and educated many guests and visitors within the parks through in-house recreational activities, interpretive environmental education programs, and special events throughout the year. Park Naturalists also contributed to a new public relations initiative by coordinating programs and events for inclusion on our social media sites.
- Park Naturalists contributed greatly to new trail construction, maintenance of existing trails, and upgrading trail maps
- Attended the Virtual Prescribed Fire Council Annual Meeting for wildland and urban interface fire control involving parks personnel statewide to maintain their burn manager status.
- Continued to participate in the Forever Wild land acquisition program, resulting in acreage for Monte Sano State Park

Future Issues

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

STATE PARKS 2020 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



STATE PARKS SYSTEM LOOKS TO THE FUTURE WITH UPGRADED RESERVATIONS SYSTEM

One of the most unappreciated elements of a successful State Park is its reservations system and the technology that supports it.



In 2008, Alabama State Parks transitioned for the first time to a modern online reservation system. This transition was a major improvement over the previous paper-based reservations system, especially for a park system offering campgrounds, cabins, lodge rooms, and meeting facilities. However, several parks lacked the necessary internet capability to connect with the State Parks website and with potential overnight guests. Consequently, as the first computerized reservation system was initiated more than a decade ago, eight parks could not participate in this modernization. A lack of internet services in their mostly rural settings meant Meaher, Frank Jackson, Blue Springs, Chewacla, Lake Lurleen, Rickwood Caverns, Cathedral Caverns, and Bucks Pocket State Parks all had to continue making reservations the old-fashioned way – with pen and paper.

In 2019, further upgrades to our reservations system began, including acquiring the technology needed to connect those rural parks to the online system. One driver of this change was feedback from park guests. Based on customer requests, the campground component of the reservation system at those eight parks had already transitioned to a site-specific internet option several years earlier. That upgrade allowed guests to select specific campsites within a campground rather than having sites assigned by park staff. The site-specific system led to an increase in reservations and greater customer satisfaction as our patrons used the reservation system to

identify campsites with the best view, the most shade, or simply a site that might create lasting memories. Over time, photos and maps were added to better aid guests in finding the campsites that best fit their individual interests.

In 2020, upgrades to the internet service at our rural parks were completed in preparation for the transition to a new reservations system. Currently, online reservations for 17 of Alabama's State Parks are managed through a centralized system accessible through www.alapark.com. This new system includes many improvements requested by our guests, including better trip planning options such as the ability to see when a particular campsite is available or if it is already reserved. The new reservation system also features new maps and photos of the sites as well as the option to make multiple reservations across different parks.

We continue striving to better serve our guests. Future plans include providing Wi-Fi access across the entire suite of overnight accommodations our parks offer rather than just at park offices. With better internet connectivity, our guests will be able to connect to family, friends, and employers as they relax at one of our campgrounds, cabins, or lodges.

Stay tuned for more improvements coming to your Alabama State Parks. ■

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

State Wildlife Grants: 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 for the State Wildlife Grants program in FY 2019-2020 was \$808,107. These funds are used to support research and restoration efforts. Both programs are administered by one biologist, the Habitat and Species Conservation Coordinator, who works closely with Wildlife 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. Conservation efforts funded through State Wildlife Grants and the Landowner Incentive Program include the following:

Reintroduction of the Eastern Indigo Snake: The Eastern indigo snake is considered to be absent from the state with the exception of snakes released at the Conecuh National Forest. The goal of this project is to reestablish a self-sustaining population of Eastern indigo snakes in Alabama. The snakes being released are the offspring of captive snakes maintained at the Orianne Center for Indigo Conservation in Eustis, Florida. The snakes are raised in captivity for two years prior to release. After being released they are monitored throughout the year. Twenty-two snakes were released in May 2020, bringing the total release number to 191.

Alabama Aquatic Biodiversity Center (AABC): AABC was established in 2014 to promote clean water and to restore rare freshwater species. This is accomplished through the propagation and reintroductions of rare aquatic species.

Statewide Stream and River Assessment Program for Aquatic Species of Conservation Concern: This project collects statewide information on the distribution, abundance, species composition, and habitat requirements of at-risk aquatic species in Alabama. Data generated from this project enables ADCNR to better plan for the management and protection of aquatic at-risk species.

Statewide Aquatic Snail Survey: Alabama is home to the highest diversity of freshwater snails in North America. This project is the first comprehensive state-wide survey of aquatic snails in Alabama. These surveys will provide a better understanding of this unique fauna and allow for better conservation decisions.

Black Bear Research: Alabama is home to one of the smallest and most fragmented black bear populations in North America. Effective management of the population requires information on its reproductive ecology. Trapping and tagging of black bears is conducted in the two main reproducing populations located in the Mobile River basin and in northeast Alabama. Once trapped, the bears receive a general physical exam, yellow tags in each ear, and are injected with a Passive Integrated Transponder (PIT) tag. Female bears are also fitted with GPS-enabled radio-telemetry collars to track their movements. Bear dens are visited during winter months to document location, characteristics, and the number of cubs. Cubs receive an expandable collar to track their movements as well. To date, 24 adult female bears and 11 cubs have been collared.

WILDLIFE AND FRESHWATER FISHERIES BUDGET AND EXPENDITURES

Section	Budgeted Amount*	Expenditures
Admin	\$1,639,511	\$1,251,110
Law Enforcement	\$13,709,180	\$12,785,426
Fisheries	\$9,790,971	\$8,068,014
Wildlife	\$29,061,856	\$26,935,643
Wildlife Diversity	\$1,000,000	\$866,623
Transferred to Department Administrative Expenses	\$4,356,000	\$3,814,654
TOTAL	\$59,557,518	\$53,721,470

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

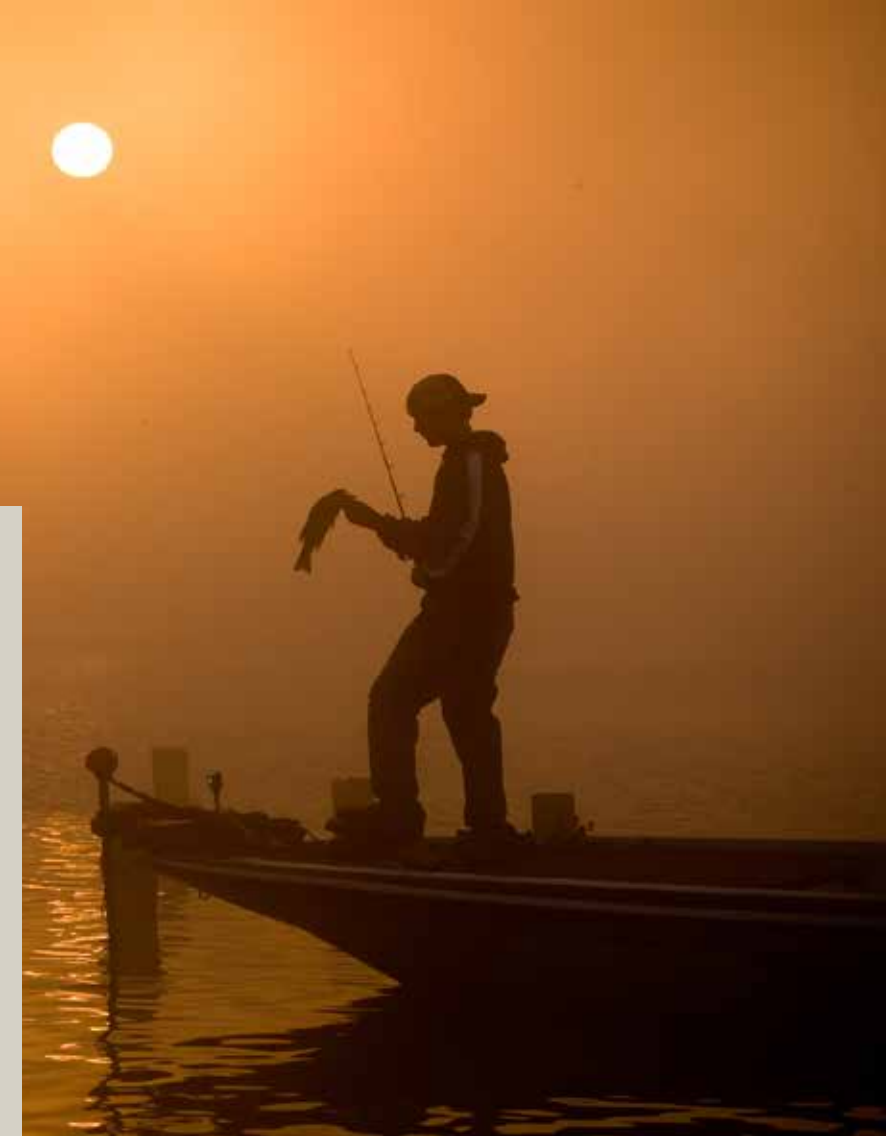
Funding includes Federal Aid in Wildlife and Sportfish Restoration monies apportioned to Alabama based on the state's geographical size and hunting and fishing license sales.

Capital outlay expenditures were significantly less than originally budgeted.

WILDLIFE AND FRESHWATER FISHERIES DIVISION STAFFING

	FILLED	VACANT**
FULL TIME POSITIONS	294	41
PART TIME POSITIONS	19	14

** Vacancy count is based on the 2020 operations plan.



Geneva State Forest Wildlife Management Area (WMA)

Longleaf Pine Restoration: Approximately 220 acres of longleaf pine habitat were enhanced at the Geneva State Forest WMA by removing woody brush species. This habitat improvement benefits 34 species in Greatest Conservation Need, including the gopher tortoise.

Habitat and Population Restoration of Gopher Frogs: The gopher frog is ranked as a Highest Conservation Concern species and is currently petitioned for listing under the Endangered Species Act. In Alabama, gopher frogs are state-listed as imperiled due to low populations. Currently, they are at a high risk of extinction. Gopher frogs were historically known to exist in multiple locations across the eastern portion of Alabama but now are only found at two wetlands within the Conecuh National Forest. Research and monitoring activities are underway at those locations.

Aquatic Restoration on Private Lands: Two culverts were removed in FY 2019-2020 that were serving as a dam on Dry Creek in Etowah County. Those culverts were replaced with a bridge. The restored creek flow will improve habitat for the federally endangered rush darter.

FISHERIES SECTION

Responsibilities and Functions

The mission of the Fisheries Section is to manage, protect, conserve, and enhance the freshwater aquatic resources of Alabama.

Accomplishments

Technical Assistance: Fisheries biologists conducted 237 biological checks of private ponds and provided practical solutions in writing for identified issues. Staff members participated in meetings and conference calls concerning the licensing and relicensing of hydroelectric projects. District biologists investigated 15 reported fish kills and cases of pollution. Formal reports prepared by the investigators were sent to the appropriate agencies.

Environmental Affairs: Staff reviewed, investigated, and commented on 124 water-related permits and environmental impact statements with potential adverse impacts to state aquatic resources.

Public Fishing Lakes (PFLs): During FY 2019-2020, 161,378 anglers harvested 181,264 fish weighing a total of 140,282 pounds from 20 of the 23 state-operated PFLs. Each angler averaged 1.3 fish per trip that weighed an average of 0.8 pounds each. The number of anglers fishing at Alabama's PFLs increased by 44% over the previous fiscal year. That increase is most likely related to the COVID-19 pandemic.

Fisheries biologists and support staff made 209 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 925,105 fish into Alabama's PFLs. This included forage fish stockings by District staff. Species stocked included 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.

Barbour County PFL was drained this fiscal year to repair a drain valve and to enhance future fishing opportunities.

Major spillway, dam, and parking lot renovations were conducted at Washington County PFL. Additionally, 2,180 channel catfish were stocked in preparation for the lake's reopening in spring 2021.

Chambers County PFL was opened to the public with no creel limit restrictions in preparation for lake draining and renovation.

Access Areas: Section staff conducted routine maintenance and inspection visits at 114 access areas. These facilities include 142 boat ramps with 184 launch lanes, 119 courtesy piers, and parking space for 3,915 vehicles.

Fisheries personnel also made 131 visits to these facilities to complete general construction, Americans with Disabilities Act (ADA) accessibility improvements, and maintenance inspections. Maintenance work at 54 access areas was completed, including

launching slab repairs, pier maintenance, parking lot repairs, tree/debris removal, parking lot striping, parking lot resurfacing, erosion damage repair, replacing signage, storm damage cleanup, and more. Staff completed routine tasks such as servicing, repairing, and maintaining project equipment and ordering materials to complete various maintenance projects.

New construction is a large and vital part of WFF's boating access program. Construction continued at the Claysville access area as part of a large renovation project that included enlarging the launching slab and parking lot, adding an overflow parking lot, and building three new piers. Construction of a new 400-foot wharf-style pier began at the Leesburg access area. Major facility expansions/improvements were completed at both the Smith Lake Park and Smith Lake Dam access areas. Three new courtesy piers and a footpath bridge were installed at the Smith Lake Park access area. A weigh-in pavilion, new launching slab, and new pier were installed at the Smith Lake Dam access area. ADA renovations were completed at the Bonner's Point access area.

Fisheries Habitat: Fisheries staff installed 635 fish-attracting devices (FADs) made from artificial materials at 19 sites on nine public reservoirs. Seven of the sites were located at public fishing piers; the remainder were in open waters. Additionally, three fish attractor buoys were installed on Lay Reservoir to help anglers locate FADs, and 335 shoreline trees were felled into Lay and Mitchell reservoirs to increase cover for fish in nearshore zones. Bartlett's Ferry, Holt, and Jordan reservoirs received 450 brush piles to be used as fish attractors. Native aquatic vegetation (buttonbush) was planted and pea gravel beds were constructed at Gantt Reservoir to encourage bream spawning. Monitoring of habitat enhancement activities via underwater camera surveys, electrofishing, and/or sonar surveys continued. GPS coordinates of habitat enhancement locations were recorded and maintained for public access on ADCNR's interactive online map. Downloadable files are also available at www.outdooralabama.com/fishattractors.

Fish Hatcheries: Fish production goals in FY 2019-2020 were met or exceeded for black bass species, channel catfish, striped bass, hybrid striped bass, bluegill, and redear sunfish. Section staff stocked these and other fish species into public waters statewide, including PFLs, for a total of 2,211,529 fish (see Table 1). Several hatchery improvements were made at two facilities, including replacing water supply lines, installing a well pump, replacing water valves, adding new roofs, and installing lighting.

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

Publications: Section staff prepared several scientific journal articles for publication. Staff also shared their knowledge with outdoors writers for articles about Alabama's abundant aquatic resources.

TABLE 1:

FISH STOCKED DURING FY 2020 INTO ALABAMA PUBLIC WATERS THROUGH THE FISHERIES SECTION'S PROGRAMS

Species	Inch Group	Number
Largemouth Bass - Florida	1-2	319,085
Striped Bass - Gulf Race	1-2	582,315
Hybrid Striped Bass	1	357,400
Channel Catfish	3-15	109,375
Bluegill Sunfish	1-2	760,480
Redear Sunfish	2	50,400
Southern Walleye	2-8	3,078
Rainbow Trout	8-20	29,396
Total		2,211,529

TABLE 2:

FISH STOCKED BY PERMIT HOLDERS INTO ALABAMA PUBLIC WATERS DURING FY 2020

Species	Location	Number or Weight
Rainbow Trout	Black Creek (Gadsden)	1,000
Rainbow Trout	Black Creek (Gadsden)	850
Grass Carp	Walter Bouldin Reservoir	8,000
Lake Sturgeon	Weogufka Creek	4



Fisheries Research: Through the Investigation and Management Techniques for Public Waters Project (Sport Fish Restoration F-40) and other related projects, four ongoing studies continued with investigators from the Auburn University School of Fisheries, Aquaculture, and Aquatic Sciences (AU-SFAAS): “Exploring the Use of Hard Part Microchemistry to Evaluate Fish Movement Among Areas in the Harris Dam Tailrace,” “B.A.I.T. Program Genetic Assessment,” “Distribution, Status, and Genetics of Stream Dwelling Black Bass in Alabama,” and “Culture and Preferences of Alabama Anglers.” One study was continued with investigators from the University of West Alabama: “Status Survey of Southern Walleye.”

During the fiscal year two new studies were initiated with AU-SFAAS: “Evaluating Mechanical Removal Rates for Rehabilitating Over-Crowded Largemouth Bass Populations in Alabama Small Impoundments” and “Fish Kill Loss Valuation Through Estimation of Angling Effort and Use Valuation on Three Mid-Size Alabama Rivers.”

Reservoir Management: Largemouth bass, Alabama bass, spotted bass, black crappie, white crappie, skipjack herring, redear sunfish, threadfin shad, and gizzard shad populations were sampled by several methods, including electrofishing, trap netting, gill netting, prod pole, seining, and/or trawling in the following water bodies: Wheeler, Wilson, Pickwick, Little Bear, Harris, Neely Henry, Logan Martin, Martin, Weiss, Mitchell, Bankhead, Holt, Inland, Eufaula, Point A, Gantt, Millers Ferry, and Coffeerville reservoirs as well as the Upper Mobile Delta. Specimens were collected, measured, and weighed. Many were also aged to determine growth rate, and sexed to determine sexual maturity and ratios. Thermal and oxygen profiles were collected from most of the previously mentioned reservoirs. Reconnaissance 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; however, due to the COVID-19 pandemic, each survey was prematurely cancelled to protect the health of WFF employees and the public.

General Surveys: General surveys were completed at Neely Henry, Jordan, and Weiss reservoirs as well as Langan Municipal Lake, the Tallapoosa River, Terrapin Creek, Lake LU, and Portland Landing SOA. Sampling for Asian carp was conducted in Lay Reservoir after an angler sighting. The New River was sampled to determine the abundance of Southern walleye. Genetic samples and inventories of largemouth bass were obtained from Cowikee and Barbour creeks (Lake Eufaula).

Endangered Species (Section 6) Aquatic Studies: Through the Cooperative Endangered Species Conservation Fund (Section 6 of the Endangered Species Act), the following studies were conducted: “Recruitment, Abundance and Habitat of Juvenile Gulf Sturgeon in the Upper Choctawhatchee and Pea Rivers,” “Assessment of Gulf Sturgeon Spawning Races in the Choctawhatchee River, Alabama,” “Alabama Sturgeon in Tombigbee River Environmental DNA Analysis in Alabama,” “Assisting with

the Collection of Environmental DNA Water Samples for the Detection of Alabama Sturgeon,” “Warrior Pigtoe Survey in the Locust Fork of Black Warrior River,” “Diet Analysis to Determine Relative Food Sources of *Fusconaia escambia*,” “Using Environmental DNA to Detect and Monitor Alabama Cavefish and Alabama Cave Shrimp,” and “Stream Bed Assessment for Alabama Pearlshell.”

Aquatic Education Program: Section staff, with assistance from other WFF sections, conducted 11 fishing events for more than 660 participants, their families, and volunteers. Staff also conducted nine fishing classes for various audiences (mostly youth) serving a total of 224 participants and taught 16 casting classes for 1,023 participants. Staff presented 47 talks about Alabama’s aquatic resources to a total audience of 1,569 participants. Additional fisheries-related information was presented to 10,835 attendees at 23 public events throughout the state.

Freshwater Mollusk Management and Research: 74 biological field trips were made to sample streams throughout the state. These surveys focused on mussel and snail populations and were used to locate brood stock for use at the Alabama Aquatic Biodiversity Center (AABC). AABC provided assistance and consultation regarding mollusk issues to the USFWS, TVA, U.S. Geological Survey, U.S. National Museum of Natural History, Alabama Power Company, Auburn University, Jacksonville State University, University of North Carolina Charlotte, and the University of North Alabama.

Rivers and Streams Fisheries Program: Section staff conducted 210 biological sampling trips during the fiscal year. Staff also reviewed applications for 223 general and 89 state-protected scientific collection aquatic permits. Southern walleye were collected from Hatchet Creek and Lake Mitchell to establish a brood stock. This is the only viable Southern walleye population identified in the state. Southern walleye sampling was also conducted in the lower Tallapoosa River; however, none were collected.

Staff collected fall-spawned Gulf sturgeon eggs in the Choctawhatchee River in October 2019. This is the first confirmed report of Gulf sturgeon spawning in the fall. Staff also implanted 10-year acoustic tags in 22 Gulf sturgeon to examine movements and spawning migrations of spring and fall spawn fish. A passive acoustic array has been installed in the upper Choctawhatchee and Pea rivers of Alabama to monitor their movements and habitats. Water samples were collected in the lower Tombigbee River and upper Alabama River to determine if Alabama sturgeon are still present through the extraction and detection of environmental DNA in these water samples. These detections will guide future sampling efforts for when and where to sample for the world’s most rare and endangered sturgeon species – the Alabama sturgeon.

Staff completed targeted sampling for stippled darters in streams of the Coosa and Tallapoosa drainages. This is the first study targeting this species. The fish has been petitioned to be protected. However, our results indicate it is found in more sites than previously known.

TABLE 3:
FRESHWATER MOLLUSK STOCKING ACTIVITIES BY AABC STAFF IN FY 2020

Species	Locality	Date of Release	Number Stocked
<i>Epioblasma capsaeformis</i> - E Oystermussel	Paint Rock River (PRRM 50.7), Jackson Co	10/03/2019	500
<i>Lampsilis virescens</i> - E Alabama Lampmussel	Bear Creek (Rock Creek), Colbert Co.	10/10/2019	144
<i>Epioblasma ahlstedti</i> - E Oystermussel	Bear Creek (Rock Creek), Colbert Co.	10/08/19	6
<i>Hamiota perovalis</i> - T Orangenacre Pocketbook	Locust Fork (Wallstown), Blount Co.	10/11/19	483
<i>Villosa nebulosa</i> - P2 Alabama Rainbow	Locust Fork (Wallstown), Blount Co.	10/11/19	974
<i>Toxolasma cylindrellus</i> - E Pale Lilliput	Bear Creek, run below Rock Creek confluence, Colbert Co.	6/17/20	396
<i>Medionidus conradicus</i> - P1 Cumberland Moccasinshell	Bear Creek, run below Rock Creek confluence, Colbert Co.	6/17/20	8
<i>Margaritifera hembeli</i> - T Louisiana Pearlshell	Beaver Creek, US Forest Service property, Grant Parish, LA	7/27/20	94
<i>Medionidus parvulus</i> - E Coosa Moccasinshell	Little Cahaba River, Bibb Co.	7/7/20	23
<i>Pleurobema atearni</i> - P1 Canoe Creek Clubshell	Big Canoe Creek, St. Clair Co.	7/15/20	1,500
<i>Leptoxis foremani</i> - E Interrupted Rocksnail	Terrapin Creek, Cherokee Co.	7/24/20	2,129
<i>Leptoxis picta</i> - P1 Spotted Rocksnail	Cahaba River, Bibb Co.	7/24/20	1,752
Total Mollusks Stocked in 2020			8,009



As part of a cooperative project among the five Gulf states, Section staff continued collecting American eel and gathering citizen-scientist reports of the species to assess its status in the freshwaters of Alabama. Efforts also continued to collect bowfin as part of other sampling activities to gather basic biological data since the species is becoming more important in the caviar industry.

Staff conducted a comparison study between two different stream sampling techniques by collecting 60 samples in the Black Warrior and Tallapoosa drainages combined. This was done to determine the most effective stream sampling technique to meet our objectives of accurately describing the biological condition of streams in Alabama. Staff also sampled the lower Alabama River to determine its biological condition based on the fish community.

Alabama Aquatic Biodiversity Center (AABC): Staff assisted with numerous research, recovery, and monitoring activities in FY 2019-2020. AABC assisted in research projects with USFWS, University of Alabama, and Auburn University, and completed a published research project with USFWS and Auburn University. AABC also provided animals for various projects at the University of Minnesota, Baylor University, Central Michigan University, and the U.S. Geological Survey's Water Quality Laboratory in Columbia, Missouri.

AABC also completed monitoring of multiple reintroduction and conservation targets throughout the state. Staff stocked 4,128 individuals of 10 different freshwater mussels into six different drainages as well as 3,881 individuals of two different freshwater snails into two different drainages (see Table 3). AABC staff completed 60 biological trips in support of aquatic species research and recovery activities statewide. AABC staff provided technical assistance to other state and federal agencies as well as NGOs on more than 2000 occurrences. AABC staff participated in 36 technical meetings across the state, and were involved in 16 outreach activities with other government agencies, academic institutions, and NGOs. AABC staff assisted with the publication of two scientific articles.

Aquatic Nuisance Species (ANS): ANS are species introduced outside of their native ranges that can create negative impacts to native species in aquatic environments and pose a significant threat to the State of Alabama. ANS are a direct threat to recreational and commercial fishing resources and can have significant negative impacts to local economies dependent on aquatic recreational activities. Section staff continue to revise and update the Alabama Aquatic Nuisance Species Management Plan for final approval.

The expansion of the silver carp population now moving upstream in the Tennessee River from the Mississippi and Ohio rivers is the most immediate threat to Alabama waters. ADCNR is in a cooperative working group 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. ADCNR Commissioner Chris Blankenship worked with Senator

Richard Shelby to help secure funding for this group. Staff are also involved in discussions with TVA and other agencies regarding the potential for several types of deterrents on the locks of the Tennessee River dams. Research is still being conducted on the effectiveness of each type of barrier.

Future Issues

PFLs: Contracting with qualified lake managers at rural lakes is an ongoing issue. Low fishing rates at some rural public lakes and aging lake facilities also remain a concern. Alternative management options are being evaluated for the lesser-used PFLs.

ANS: These species continue to pose a significant biological and economic threat to aquatic life in Alabama.

Riverine Habitat: The loss of riverine habitat in Alabama has resulted in the decline or loss of numerous aquatic fish, snails, and mussels. ADCNR continues to document habitat loss to be an advocate for providing suitable riverine habitats. A statewide comprehensive water plan that emphasizes instream flow protection for the benefit of aquatic wildlife and habitats would be very beneficial.

Fish Hatcheries: Many production ponds – including drain kettles, water supply lines, drainage lines, buildings, and power supply to the ponds – need renovation due to age.

Fishing License Sales: Although the pandemic increased outdoor recreation, the prior downward trend of fishing licenses sales remains a concern. Section efforts to reverse this trend include conducting casting and fishing classes, as well as increased assistance with other agency-related programs like 4-H. Increased marketing efforts are being conducted to encourage first-time license purchases and 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 law enforcement program.

Accomplishments

The COVID-19 pandemic impacted all aspects of WFF-LE in 2020, and training was no exception. The inability to gather, even in small groups, gave the Section the opportunity to explore a virtual approach to training and meetings. Several applications were evaluated and utilized, including Zoom video-conferencing and Microsoft Teams.

In response to the pandemic, the Alabama Police Officers Standards and Training Commission reduced restrictions on video training. This allowed the Section to utilize secure YouTube videos to fulfill its annual training requirements.

WFF-LE completed a five-year transition from federally owned patrol rifles to a completely state-owned inventory of firearms. Restrictions placed on security measures associated with the federally owned firearms reached a point that their continued use by the Section was no longer feasible.

WFF-LE purchased Two Honda ATVs and five Ruger rifles with funds assessed as part of a penalty from a guilty plea issued by a deer breeder who was arrested for the unlawful importation of five Cervidae in 2017. This equipment will be used by Section staff to survey properties and to sample deer populations in the event that Chronic Wasting Disease (CWD) is confirmed in the state.

Despite the complications associated with the pandemic, WFF-LE hired six new employees last year. Among them are the first African American female officer and the first Hispanic male officer in the Department's 113-year history. These new hires represent a positive step forward in WFF-LE's effort to diversify its force. Advancements in online teaching methods and social distancing adjustments to the Field Training Officer program allowed the successful training of our new officers to continue unimpeded.

Extended State Personnel office closures limited promotional opportunities within the Section throughout the year. During that time, many supervisors took on extra tasks to fulfill the duties of recent retirees. The Section moved forward with various promotions once State Personnel offices were reopened and the required documents became available to fill the voids left by retirements.

With stay-at-home orders in place across the country, many people took to the outdoors to enjoy the nation's wealth of natural resources. This resulted in record-setting increases in hunting and fishing license sales during the spring of 2020. The public's renewed interest in the outdoors will increase funding for future budgets and hopefully slow the trend of downward funding that game and fish agencies nationwide have experienced in recent years. ADCNR is actively encouraging those first-time license buyers, or those who haven't purchased a license in years, to continue enjoying Alabama's many outdoor recreational opportunities and to contribute to conservation by purchasing a license in the future.

Enforcement Action

A new Dispatch Center was created through a partnership with the Alabama Forestry Commission. The new system is a vast improvement over past communications systems and provides officers with reliable, around-the-clock contact with the Dispatch Center for all necessary assistance without issues related to reception.

WFF's Hunter Education Unit was transferred to WFF-LE, effective October 1, 2020. This move will secure the future success of both the Section and the Unit. The manpower available within the

Section will enable the expansion of public shooting range operations, facilities, and outreach activities. This increased outreach effort will hopefully result in increased license sales and operation fees for the sustainment of future budgets. Everyone who is involved looks forward to the challenges ahead.

Game breeder licenses in Alabama are based upon animal inventory numbers determined by spring farm inspections as set out in statute. As a precaution against COVID-19 exposure, Enforcement staff avoided on-site farm visits during the spring of 2020. However, utilizing the online game breeder database, a real-time inventory count was established for all breeders in the state. This number was accurate (not an estimation) and determined license fees for the following year. In the fall of 2020, follow-up site visits were made during the license renewal process.

Future Issues

The hiring of six new law enforcement officers in August 2020 helped relieve some of the burden on the Section after losing 11 full-time officers and four part-time officers due to retirements and other reasons during the year. The training and retention of new officers continues to be a challenging task. WFF-LE is currently at a 40-year low in its staffing level.

Concerns related to the pandemic will be a continued challenge for the Section. First responders are constantly engaged with members of the public, and the necessary steps to protect them continue to evolve. The safety and health of our law enforcement officers is a priority so that they can effectively respond to the public's concerns. Spikes in COVID-19 cases and exposures to the virus will hinder our response until the pandemic is under control. Section employees will continue to remain vigilant so that the needs of the citizens of Alabama are met.

Awards

The Alabama Chapter of the National Wild Turkey Federation presented its Conservation Officer of the Year Award to Senior CEO Jacob Curt Porter of Fayette County. The Mississippi Flyway Council's Officer of the Year Award winner for Alabama was Senior CEO Chad Howell of Colbert County. The Shikar-Safari International Club awarded Sergeant Ben Montgomery of Montgomery Headquarters with its Officer of the Year Award. The Alabama Wildlife Federation presented Senior CEO Jonathan Howard with its Enforcement Officer of the Year Award. Sergeant Jason McHenry of Autauga County received the Officer of the Year Award for Alabama from the Southeastern Association of Fish and Wildlife Agencies. And, the Alabama Conservation Enforcement Officers' Association selected Senior CEO Matt Moran of Jackson County as the recipient of the Officer of the Year Award. These recognitions were based not only on conservation 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 resources and the people of Alabama.

WILDLIFE SECTION FUNDING

In 1937, the Federal Aid in Wildlife Restoration Act, also 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 supporting state wildlife conservation and restoration and hunter education programs. These federal dollars pay up to 75% of approved projects as matching funds, with state hunting license dollars completing the remaining 25% of required funding. The U.S. Fish and Wildlife Service (USFWS) disburses these monies to states based on the population 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.

PUBLIC HUNTING OPPORTUNITY PROGRAMS

Wildlife Management Areas: Wildlife Section staff managed more than 770,000 acres within the Wildlife Management Area (WMA) and Special Opportunity Area (SOA) system. During FY 2019-2020, Section staff held more than 6,418 managed hunt days on the 34 WMAs and six SOAs. WMAs also provided opportunities for trapping, fishing, hiking, picnicking, camping, research, and nature study. To support public recreation opportunities on the WMA/SOA system, staff maintained 143 office and operation support buildings, maintained equipment, painted and placed signs on 291 miles of property boundaries, maintained boat ramps, applied aggregate (crushed rock) to refurbish 78 miles of WMA public access roads, and maintained 77 access, parking and campground areas.

Additionally, staff conducted prescribed burns on 28,990 acres of wildlife habitat, maintained 252 miles of fire lanes associated with prescribed fire activities, maintained 5,023 acres of wildlife openings and early successional habitat, and performed invasive species control for both plants and animals to enhance habitat for wildlife populations 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 areas located in 21 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: Staff continued supporting the Section's youth hunting programs by conducting 28 youth dove hunts across the state in 18 counties. The program's are a coop-

erative effort between ADCNR, Auburn University, Ducks Unlimited, the National Wild Turkey Federation (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 on the weekends 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 Land Trust (FWLT), timber sale revenues, and license revenues, all of which were matched with funds from the Pittman-Robertson Act.

Land Acquisitions for FY 2019-20:

- Acquired 9 acres for the Coosa WMA (Coosa County)
- Acquired 178 acres through FWLT that were added to the Skyline WMA (Jackson County)
- Acquired 351 acres through FWLT that were added to the Cahaba River WMA (Bibb County)
- Acquired 6,287 acres of habitat for the imperiled Red Hills salamander (Monroe County) through a partnership between the Wildlife Section and FWLT using Habitat Conservation Planning Acquisition and Recovery Land grants
- Added 1,265.81 acres to the Portland Landing SOA (Dallas County) through a partnership between the Wildlife Section and FWLT

Forest Management Activities: WMA biologists, in coordination with Wildlife Section foresters, worked to promote forest health and enhance habitats within the WMA system to benefit wildlife year-round. Revenue generated from timber sales on Wildlife Section-owned lands was used for general management efforts such as tract reforestation and/or utilized to fund additional land acquisitions. Forestry actions that occurred this fiscal year include the following:

- Autauga WMA: 296 acres of longleaf pine were planted and 215 acres of recently harvested timber reserve were contracted for longleaf pine restoration. The tract has also been treated with herbicide and burned with planting to be completed in winter 2021.
- Barbour WMA: 391 acres of longleaf pine were planted, finalizing the 4,000-acre, northside longleaf pine restoration project. Also, harvests on 1,700 additional acres of thinning and final harvest timber sales approached 40% completion.
- Cedar Creek SOA: 116 acres of recently harvested timber reserve were contracted for pine reforestation. The tracts have also been treated with herbicide and burned with planting to be completed in winter 2021.

- Freedom Hills WMA: A 27-acre tornado damage salvage timber sale has been completed.
- Geneva State Forest WMA: The 900-acre thinning and microchipping project approached completion. In addition, a stand treatment contract for 350 acres of yaupon mulching/removal using Competitive State Wildlife Grant (C-SWG) funds is nearing completion.
- Lauderdale WMA: A 518-acre timber sale was completed, and harvests on 1,400 additional acres of thinning approached 20% completion.
- Lowndes WMA: Contractors have completed approximately 80% of a 380-acre thinning sale.
- Upper State SOA: Pine reforestation was completed on a 125-acre tornado salvage area.

Timber stands on the WMA system will continue to be evaluated and monitored for emerging forest health issues. Treatments will be conducted as needed to ensure forest resources remain healthy and supply ample wildlife habitat to meet the Section's needs. Thinning sales are being planned for specific tracts located on Skyline, Lauderdale, Barbour, and Geneva State Forest WMAs, as well as Portland Landing SOA.

Invasive species such as tallow tree, Japanese climbing fern, and bicolor lespedeza were scouted and treated throughout the WMA system. Additionally, the aggressive nature of Cogongrass has made Wildlife Section staff more 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, as well as the Upper Delta, Geneva State Forest, and Barbour WMAs for several seasons. The infested areas have been significantly reduced, but monitoring and chemical control continues.

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. A hunting activity telephone 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 94,933 harvested deer through the mandatory deer and turkey harvest reporting system (Game Check) during the 2019-2020 hunting season. The 2019-2020 season was the fourth year for mandatory reporting of all deer harvests.

Samples from 1,667 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. Revisions of WFF's

CWD Strategic Surveillance and Response Plan were completed.

Wild Turkey Management: Wild turkey observations, harvest, and reproduction information was collected statewide through the Avid Turkey Hunter Survey (ATHS) and wild turkey brood survey. Data on gobbling activity (number of gobblers and gobbles heard), turkeys seen, and gobblers harvested for each day hunted during the spring season was collected by 454 avid turkey hunter survey participants. ATHS data was used to monitor trends in gobbling activity, population, sex and age structure, harvest timing, and harvest rates. Wildlife Section personnel and volunteers collected observational wild turkey brood data in July and August 2020. Field staff and volunteers reported 805 observations of turkeys (hens, poult, and gobblers), and each observation during any day was recorded separately. Observations were collected statewide, and the data were separated by five WFF districts, by six ecoregions (Piedmont, Southeastern Plains, Ridge and Valley, Southwestern Appalachians, Interior Plateau, and Southern Coastal Plain), and by public or private lands. Brood survey data was used to monitor trends in reproduction and the associated survival of poult being recruited into the population. The results of the ATHS and brood survey were published in the annual Full Fans & Sharp Spurs wild turkey report. The ATHS and brood survey data was also used in combination with results from the Game Check harvest reporting system and Responsive Management post-season harvest survey to structure recommendations for hunting seasons and bag limits.

Hunters reported 16,856 harvested male turkeys through the mandatory Game Check system for the 2019-2020 hunting season. The Responsive Management post-harvest survey estimated 34,882 male turkeys were harvested in the 2019-2020 hunting season.

In addition, Section staff continued to conduct game camera brood surveys in July and August 2020. These surveys were conducted on Blue Spring, Coosa, Little River, Mulberry Fork, Oakmulgee, and Skyline WMAs. The game camera survey results will be compared to incidental observation results. These projects will continue in the coming 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, 1,354 mourning doves were banded and released, and the data was submitted to the Bird Banding Laboratory of the U.S. Geological Survey. USFWS will analyze data from reported bands 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 waterfowl and their habitats to inform management of species. Aerial waterfowl censuses were not conducted in FY20 due to unforeseen plane and pilot issues. Hunter bag checks were continued in the Mobile-Tensaw Delta and the Tennessee River Valley during fall and winter. As part of the nationwide

project, 550 wood ducks were banded and released in Alabama, and data was submitted to the Bird Banding Laboratory of the U.S. Geological Survey. Data from band returns will be analyzed by the USFWS to provide parameters needed for wood duck population monitoring such as band return rates, migration, kill rates, and estimates for mortality and survival.

Research: This past fiscal year, \$1.4 million in Wildlife Restoration Federal Assistance funds and approximately \$106,000 in external sponsorship funds were used to support seven cooperative research projects between WFF and five universities. Of these cooperative research projects, 12 were ongoing from previous years, and two new projects were established this past year. Section 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, deer diseases, waterfowl habitat use, and wildlife habitat management.

NONGAME WILDLIFE PROGRAMS

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 2020 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 82,443 pictures were compiled and analyzed using Timelapse2 software. A total of 21 species were captured on camera during the surveys, including golden eagles. The presence of golden eagles was confirmed at all five camera sites resulting in 9,161 images of the birds. These surveys are revealing more information on 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 of 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 Wildlife Program biologists were unable to participate in the continent-wide Breeding Bird Survey (BBS) program administered by the U.S. Geological Survey due to cancellation of all survey routes for 2020 because of COVID-19 concerns. Over the last 25 years, 190 completed BBS routes have been conducted by nongame biolo-

gists. 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 Wildlife Program biologists assisted by conducting one Christmas Bird Count in south Alabama on Dauphin Island. Nongame Wildlife Program Biologists also led the Montgomery County Christmas Bird Count.

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 terns, Caspian terns, gull-billed terns, sandwich terns, and black skimmers nested on the island. This should continue in the near future as the habitat remains suitable for nesting. Solitary nesting American oystercatcher, snowy plovers, and Wilson's plovers continue to nest in low numbers in Mobile County on Cat Island, Isle aux Herbes, and Pelican Island. However, snowy plovers have been increasing in Baldwin County, particularly on Bon Secour National Wildlife Refuge and Dauphin Island. Birds are closely monitored and protected by refuge staff and personnel of the newly initiated Alabama Audubon Coastal Bird Stewardship Program. In addition, Alabama Audubon Coastal Bird Stewardship Program reported 125 least tern nests in Baldwin County this year.

Bat Population Monitoring: Field work involving bats was greatly curtailed this year due to concerns about human to bat transmission of SARS-CoV-2 (the virus that causes COVID-19 disease). A panel of experts convened by the USFWS and the U.S. Geological Survey determined the virus represents a credible, non-negligible risk to bats in North America. These bats do not carry the virus but potentially could become a reservoir. Until a better understanding of the risk to bats is ascertained, handling and close contact with bats will be avoided unless critical to promote the conservation of the species. Capture of bats by mist-netting was conducted only on one occasion where acoustic evidence suggested threatened and endangered species were

present at a site under consideration for development. Passive surveillance for bats using trail cameras was conducted at seven caves in late-summer 2020. Two of those caves were confirmed to be used by bats.

Bat Conservation Outreach: WFF's Nongame Biologist for North Alabama serves as the leader of the Alabama Bat Working Group (ABWG). The mission of the ABWG is to communicate, collaborate, and coordinate efforts to conserve bats in Alabama. ABWG undertakes two major events each year to promote bat awareness and conservation in Alabama – an annual meeting and a Bat Blitz. These events were cancelled in 2020 due to the COVID-19 pandemic.

Eastern Spotted Skunk Research: The Nongame Wildlife Program continued work to better understand the distribution and habitat use of Eastern spotted skunks in Alabama. Once considered common, the range, distribution, and population size of the Eastern spotted skunk is now unclear following an apparent precipitous decline of the species. Staff conducted camera surveys for spotted skunks at 57 locations over six sites during the fall and winter of 2019-2020: Black Warrior WMA (Bankhead National Forest), Lauderdale WMA, Pond Creek (private, Colbert Co), Skyline WMA, former Wolf Creek WMA (now private land), and Yates Lake WMA. USFS staff placed cameras at an additional 14 locations within the Bankhead National Forest for a total of 71 locations surveyed. Only one spotted skunk was detected. It was located on the west side of Black Warrior WMA in the Kinlock area.

Staff continued to solicit reports of spotted skunk sightings from the public by advertising through the Alabama Hunting & Fishing Digest. During FY 2019-2020, staff received four reports of spotted skunks that were verified by photograph.

Endangered Species (Section 6) Research: WFF received \$425,819 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 gopher tortoise, manatee, green salamander, and gopher frog along with red-cockaded woodpecker (RCW) translocation and habitat restoration on state lands are examples of projects made possible by those funds. An additional \$42,720 federal dollars, with no matching funds required, were awarded to conduct Red Hills salamander surveys on newly acquired lands as well as private lands.

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 is 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 5,321 applications being received in 2020 for the 260 available tags. This was a 15% increase from the 4,626 applications received in 2019. Hunter success rates increased 34.9% from 2019, with a 63.5% success rate throughout the five hunt zones. Success rates within each hunt zone are as follows: Southwest 37% with 73 harvested, Coastal 56% with 25 harvested, West Central 68% with 34 harvested, Southeast 45% with two harvested, and Lake Eufaula 65% with 13 harvested. The hunts continue to increase 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, 2020, there were 63 permitted falconers in Alabama at the following classification levels: apprentice (10), general (28), and master (25). Five previously permitted falconers did not renew their permits, and three new apprentice falconers were issued permits after successfully passing written examinations and after having equipment and facilities approved. Also, two master class falconers moved into the state transferring their permits to Alabama. Falconers are located in 28 Alabama counties with the most in Madison County followed by DeKalb 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 seven biologists dedicated to providing technical assistance to private landowners, corporations, hunting clubs, and government agencies. Throughout the year, biologists made contacts and provided on-site 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 dispensing wildlife management advice is through the agency's Deer Management Assistance Program (DMAP). DMAP included 137 landowners and hunting clubs with 422,028 acres enrolled.

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 FY 2019-2020. 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.

Federal Energy Regulatory Commission Meetings: Staff continued meetings and site visits with personnel from Alabama Power Company (APC) associated with the Coosa Wildlife Management Plan, Harris Dam APC hydroelectric relicensing project, and Martin Dam APC hydroelectric relicensing project. Staff reviewed documents regarding the development of wildlife, shoreline, threatened and endangered species, and recreation management plans for the Martin, Jordan, Mitchell, and Weiss lakes hydroelectric projects. Plans are required by the Federal Energy Regulatory Commission. 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: Section staff continued 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. 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 wildlife species.

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 regarding 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. Staff 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. ADCNR's 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 27th year that completing the Alabama Hunter Education Program was mandatory for first-time license buyers born on or after August 1, 1977. Approximately 3,216 students participated in the 157 courses offered by certified instructors throughout Alabama. The courses were taught by 418 instructors, mostly volunteers, and totaled 1,256 hours of instruction. The time and expertise contributed by volunteers is essential to the success of the Hunter Education Program. Another 8,364 students took the online hunter education course, for a total of 11,580 students receiving certification.

Adult Mentored Hunting Program: The Section conducted 13 Adult Mentored Hunting workshops in FY 2019-2020. Four of those were three-day events and the remainder were one-day events. We hosted 140 participants. Of those participants, 22% were female and 15% were minorities. Four events were conducted in Dallas County, four in Mobile County, one in Lee County, one in Barbour County, one in Madison County, and two in Shelby County. These events are a collaborative partnership with the NWTF's Alabama Chapter.

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. New ranges in Hoover, Alabama, and at Lakepoint State Park were under construction during FY 2019-2020.

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 2019 event had 77 participants, with 39 ladies being first-time attendees. Due to the COVID-19 pandemic the March 2020 event was canceled.

Shooting Ranges: Nine WMA shooting ranges, the Etowah Public Shooting Range, the Marengo Public Shooting Range, and the Conecuh National Forest Range continued to receive abundant public use. These ranges are open to the public on a daily basis during daylight hours. Staff members and volunteers conducted maintenance throughout the year. This provides a total of 12 agency-operated shooting ranges in Alabama. WFF also partnered with a private shooting range, the Red Eagle Skeet and Trap Club. Through that partnership the Red Eagle is open to the public four days a week.

WFF currently operates two staffed shooting ranges (Cahaba and Swan Creek). The Cahaba Range had 10,141 users in FY 2019-2020. Swan Creek had 10,912 users from February through September 2020. Staff began documenting license sales at the Swan Creek range beginning in May 2020 and sold 798 licenses on-site through September 2020.

Shooting Sports: Approximately 3,269 Alabamians participated in 54 youth shooting sports events 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. Staff continue efforts to increase developed shooting range sites. The number of events this fiscal year was greatly reduced due to the COVID-19 pandemic.

National Archery in the Schools Program: Alabama's National Archery in the Schools Program (NASP) currently has 278 schools enrolled with 48,792 students participating. This program has the potential to introduce more than 100,000 students to target-style archery each year. Approximately 4,000 student archers from 178 schools participated in eight regional qualifying events for the state championship. Due to the COVID-19 pandemic, the state championship event was canceled. Teachers and school administrators have made positive statements regarding this program and report that student behavior, attendance, and attitudes have improved since implementing NASP. The 2021 event is scheduled for April 1-2 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: Staff conducted eight youth and two adult workshops on furbearer trapping. Two of the workshops were cancelled due to weather and travel concerns. Workshops were held in Franklin, Escambia, Jackson, Baldwin, Barbour, Jefferson, Covington, and Butler counties. These cooperative trapper education workshops were a collaborative effort of WFF, TVA, Safari Club International, Alabama Trappers and Predator Control Association, Alabama Forestry Commission, and the Alabama State Lands Division. Participation in the workshops included 126 students (54 were adults) with an average age of 11 years old. Approximately 40% of the students were female. Many of the students were accompanied by a parent or guardian. The adults were often as enthusiastic as the youth. 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 2020-2021 include conducting eight two-day workshops throughout Alabama.

FUTURE ISSUES

Public Hunting: The loss of leased land in the WMA system is a continued concern. The acreage within the WMA/SOA system experienced a 0.7% decrease in FY 2019-2020 over the previous hunting season. Land acquisitions supported with Federal Grant Programs are pursued each year to help offset losses in our private land leases. During FY 2019-2020 Pittman-Robertson Federal Assistance funds were used to purchase 1,274 acres that were added to the Portland Landing SOA. Additionally, 6,287 acres were purchased using Endangered Species Section 6 Federal Assistance funds to create a new WMA in the Red Hills region of Monroe County in southwest Alabama. More leased land is likely to be lost in the future as private and corporate landowners withdraw from their contractual agreements. The 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 will also continue to work with the FWLT to acquire land for public hunting.

Nuisance Wildlife: Nuisance wildlife problems and conflicts continue to rise, especially as society urbanizes. In an urban setting, the public is less familiar with how to handle wildlife-related issues. Also, the urban/suburban setting limits common solutions to deal with many of these problems. At the district level, a considerable amount of time is spent providing assistance on nuisance wildlife calls. As WFF becomes more active in dealing with these non-traditional wildlife issues, time management and funding will become more challenging. Section staff have issued approximately 103 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 have been limited. This could lead to reversions of federal dollars if matching opportunities are not available. WFF staff has collaborated with FWLT and worked cooperatively to utilize Forever Wild funding as a state match source. This helps to capture the allotment of the federal apportionment that is beyond what traditional state dollars have been unable to match, thereby providing aid for land acquisitions into the WMA system. Staff are exploring other options to fully utilize our federal dollars through partnerships with outside entities and third-party, in-kind matches.



OFF-SEASON... WHAT OFF-SEASON?

By Chuck Sykes, Wildlife and Freshwater Fisheries Director

“Our staff do more in the off-season than most people are aware of.”

The Wildlife and Freshwater Fisheries Division (WFF) manages habitat and hunts on approximately 750,000 acres, including 34 WMAs and six Special Opportunity Areas (SOA) statewide. This acreage includes approximately 366,000 acres owned by WFF and the Forever Wild Land Trust; approximately 38,000 acres of privately-owned, leased lands; and 345,000 acres provided through agreements with the U.S. Army Corps of Engineers in Alabama, the U.S. Forest Service, the Tennessee Valley Authority, and the U.S. Fish and Wildlife Service. This acreage is managed by 73 WFF employees consisting of biologists, technicians, and administrative personnel.

So, what takes place on a typical WMA or SOA once hunting season is over? Why are the gates closed on the WMA when hunting season ends? Why can't we just ride around? Questions like these are frequent during the late spring through early fall months. And, I can see how someone who doesn't understand the inner workings of a WMA would ask them. For those people, here are just a couple of reasons why gates were closed and what actually happened during the “off-season” of 2020.



First, road work must be performed during the drier summer months to repair damages made during the rainy winter months. Our staff maintained more than 2,000 miles of interior roads last year. That involved scraping and shaping the roads and adding more than 90 miles of gravel in strategic locations. In addition, approximately 350 culverts were either repaired or replaced last year on our WMA and SOA properties. These two management items are the main reasons many gates are closed throughout the summer.

During this same road closure periods WFF staff graded and maintained 62 parking/camping areas, repaired 691 gates, and replaced 92 gates. Throughout these public hunting areas, staff maintained 130 kiosks and painted approximately 400 miles of boundary lines. They also replaced WMA signs during the 2020 “off-season.”

Other annual management activities include nuisance animal removal. Beavers wreak havoc on our ability to control water flow on the waterfowl management areas. Last year staff removed 500 beavers. Do you realize how much manpower and effort are involved in removing 500 beavers? That's almost a full-time job as we try to keep water levels manageable for crops to grow and to allow waterfowl and hunters to have access. Too much water at the wrong time means the crops can't grow. Too much water in the winter may inundate the crops too deeply, making them inaccessible to the migrating waterfowl. It's a constant battle with the beavers.

In addition to battling unwanted mammals, our staff battle herbaceous and woody invaders each year. Cogongrass, Chinese tallow tree, kudzu, and bicolor lespedeza are a few of the invasive plants and trees we must treat either chemically or by mechanical means on our WMAs. This year, roughly 2,000 acres were treated to control invasive plants and trees.

Many of the habitat enhancements that WFF addresses require year-round attention, both in-season and off-season. Two of these—prescribed fire and food plot management – seem to raise the most questions. Let's look at both.

Prescribed fire is an extremely time-consuming but highly beneficial and cost-effective management activity that we perform on an annual basis. We usually catch quite a bit of grief over our use of prescribed fire. Most hunters understand the need for fire and, for the most part, support its use- until it negatively impacts their hunt.

We try to conduct this work around the scheduled hunts and post notices regarding the timing of upcoming burns. However, there are only a limited number of days with suitable conditions for conducting burns during the season, and we must make the most of those conditions even if it might occasionally impact our hunters. Last year our staff burned more than 25,000 acres and maintained or installed 240 miles of fire lanes in an effort to promote or maintain quality wildlife habitat.

Food plot management also generates frequent questions and concerns: I don't understand why they let these food plots just grow up in junk! Why doesn't the Department plant something

green for the wildlife? I've got a tractor; I'd plant it for them if they'd let me.

Our WMA biologists receive statements and questions like those year after year, so let's go ahead and get this out in the open as to why we choose not to plant hundreds of acres of winter food plots or allow others to do so.

To positively impact the carrying capacity of a property and improve the nutritional plane for the wildlife, especially deer, approximately 10% of a property should be planted in a high-quality forage. That is the most basic food plot principle. Just looking at this point, it would be financially, logistically, and physically impossible for us to plant 10% of each WMA or SOA. For example, on Skyline WMA we would need to plant more than 6,000 acres of food plots to make a difference.

Our resources are much better spent managing timber stands and wildlife openings for quality native vegetation instead of planting food plots. That “junk” that many people think is occupying a wildlife opening is, in most cases, highly nutritious native wildlife plants. Periodic thinning and burning of timber stands and seasonal disking, mowing, and burning of wildlife openings can yield a plethora of beneficial native forbs, grasses, and legumes. Although it's not the picture-book food plot that most hunters envision, it's just as beneficial, if not more so, to wildlife.

Sticking with the Skyline example, even if we wanted to, I seriously doubt we could find 6,000 acres flat enough to till the ground to plant a food plot. However, we can come much closer to putting 10% of the property into quality forage by utilizing the practices I mentioned above.

If I say ragweed, most people think of a useless plant that causes allergic reactions. However, this plant can produce tons of high protein forage for deer, nesting and brood-rearing cover for turkey and quail, and seeds for a variety of game and non-game species to enjoy. Our staff managed native vegetation on more than 4,500 acres of wildlife openings last year.

Why don't we allow members of the public to bring their equipment to the WMA and plant a food plot? At first blush, this does sound like a good deal for us, but, in reality, it causes problems. In the past, this practice did occur on a limited basis. The good was quickly outweighed by the bad, however, when hunters started treating the plot they planted like it was theirs. The conflicts created between our hunters, as well as the added potential personal and equipment liability issues to the agency, forced us to suspend that practice.

Wildlife and land management is a full-time job that has no “off-season.” Our staff continue to work diligently to make our WMA and SOA systems the best they can be for wildlife and the outdoor enthusiasts who use them. If you haven't utilized them, you're missing one heck of a bargain. ■



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