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Mississippi Department
of
Wildlife, Fisheries, & Parks



Program Strategic Plan
FY 2021-2025

Mississippi Department of Wildlife, Fisheries, and Parks

5-Year Strategic Plan

FY 2021 – 2025

Comprehensive Agency Mission Statement

The mission of the Mississippi Department of Wildlife, Fisheries, and Parks (MDWFP) is to conserve and enhance Mississippi's wildlife, fisheries, and parks, provide quality outdoor recreation, and engage the public in natural resource conservation.

Agency Philosophy

The MDWFP is charged by state statute to conserve, develop, and protect Mississippi's natural resources and provide continuing outdoor recreation opportunities to our citizens.

Relevant Statewide Goals and Benchmarks

Statewide Goal #1 – Economic Development: To develop a robust state economy that provides the opportunity for productive employment for all Mississippians

Statewide Benchmark #1:

- Percentage of contribution to fishing, hunting, and overall conservation sector
- Number of jobs in fishing and hunting sector

Statewide Goal #3 – Public Safety and Order: To protect the public's safety, including providing timely and appropriate responses to emergencies and disasters and to operate a fair and effective system of justice

Statewide Benchmark #3:

- Reported violations for hunting, fishing, and boating violations
- Collection of penalties and fines
- Usage of Special Response Team

Statewide Goal #6 – Natural Resources: To ensure that current and future generations have access to the state's abundant natural resources through restoration, protection, conservation, and wise development of those resources

Statewide Benchmark #6:

- Maintain adequate natural resources
- Maintain adequate fish and wildlife populations
- Measure condition of state park infrastructure
- Measure condition of state park acreage
- Number of visitors to state parks and recreation areas

Statewide Goal #7 – Infrastructure: To ensure the construction and maintenance of infrastructure (including roadways, waterways, railways, airports, water and sewer systems, pipelines, electricity lines, broadband connections, public building) adequate to meet the needs of citizens and the business community and to foster economic growth.

Statewide Benchmark #7:

- Percentage of population affected by compromised high hazard dam
- Percentage of visitors affected by compromised water and sewer systems within the State Parks system
- Percentage of cost savings to implement upgrades to power lines at state parks for takeover by local electric power associations
- Improve emergency powered communications system to withstand natural disasters and 24/7 connectivity
- Cost of needed repairs to buildings and infrastructure for all state park locations

Overview of the Agency 5-Year Strategic Plan

The MDWFP maintains an internal strategic plan that will guide current and future agency efforts. The plan identifies the following items as current conservation challenges:

- Declining populations of some fish and wildlife, as well as reduced recreational opportunities, due to land use changes and habitat loss
- Overcoming public apathy towards conservation issues
- Addressing the general public's lack of awareness of the Agency's mission and responsibilities
- Recruiting and retaining hunters, anglers, and non-consumptive users
- Partnering with other conservation agencies and organizations to address complex conservation issues
- Developing effective marketing campaigns to promote Agency goals and increase public support
- Controlling destructive non-native, invasive species (plants and animals) and mitigating impacts of nuisance wildlife
- Shifting the primary focus from consumptive use-related conservation issues to all conservation issues
- Increasing effectiveness and efficiency of agency programs and personnel
- Recruiting and retaining qualified staff
- Identifying a long-term, dedicated funding source to ensure conservation delivery through research, fish, and wildlife management, monitoring, and facility maintenance and improvements
- Determining methods for non-consumptive users to share in funding conservation programs that have historically been primarily funded by hunters and anglers
- Acquiring adequate funding to maintain and enhance parks

The strategic plan is based on six overarching goals that will assist the Agency in accomplishing our mission:

1. Fish, Wildlife, and Habitat - We will conserve Mississippi's fish and wildlife and their habitats.
2. Outdoor Recreation - We will encourage participation in fishing, hunting, and nature-based recreation and provide quality opportunities for safe and accessible enjoyment of our natural resources and parks.
3. Information and Education - We will improve public understanding of and involvement in conservation and management of fish and wildlife.
4. Private Lands - We will expand efforts to help private landowners advance conservation and address factors that limit managing their lands effectively.
5. Public Lands and Waters - We will manage public lands and waters to optimize benefits to fish, wildlife, and the people who enjoy these resources.

6. Management and Administration - We will enhance the MDWFP's capability to manage its resources and to operate effectively and efficiently, with accountability at all levels.

Within the strategic plan, each MDWFP program (Support Services, Law Enforcement, Freshwater Fisheries, Mississippi Museum of Natural Science (MMNS), State Parks, and Wildlife) identifies current conservation issues related to the six overarching goals and generally addresses how they will deal with each issue. Additionally, an operational plan has been developed to provide specific strategies and actions that address the issues identified in the strategic plan.

Significant External Factors Which May Affect Performance

The following changes in societal trends must be considered and will impact the MDWFP's effectiveness in fulfilling our mission:

Demographics/Population Shifts - Mississippi's population has greatly increased during the past two decades and is projected to increase at a similar pace in the near future. Population expansion is shifting toward metro areas and moving inward from the coast. Also, the population is becoming more diverse.

Social/Cultural - Americans are busier than ever and with improvements in technology and communication there is more competition for leisure time, interests, and dollars. MDWFP customers are less interested in "roughing it" and are less inclined to take time to develop outdoor skills.

Ethics/Laws - There is a growing concern that appreciation for wildlife as a public resource has declined. Many conservationists sense that we are losing our "land ethic" as fewer landowners reside or make their living on rural lands. With an increasing number of conservation laws being passed, rules and regulations are complex, hard to understand, and difficult to enforce.

Land Use Changes - Urban and suburban sprawl, new roads, and infrastructure development has impacted sustainability of natural communities in some parts of the State. Farm Bill programs, conservation easements, and other private landowner incentive programs are helping protect more private lands for conservation. Agricultural practices are having new and different effects on wildlife and fisheries. During the past three decades, agricultural land has decreased, and largely been replaced by tree plantations. Meanwhile, the amount of mixed pine-hardwood forest has diminished. Many landowners with an interest in hunting are increasing their efforts to manage for wildlife, but many of their management activities could be improved and better coordinated

Outdoor Recreation - Although the decline is slower than the national average, hunting and fishing participation is slowly decreasing in Mississippi. The average age of license holders is increasing and recruitment of new hunters and anglers is challenging. Access to private lands and public waters is decreasing due to increased fears of liability, while costs associated with leasing or owning recreational lands are increasing. Public lands and waters are perceived as being less safe and offering lower quality fishing and hunting opportunities than private lands. However, wildlife viewing (e.g., photographing, observing) continues to increase on public and private lands along with other recreation interests. Research indicates youth participation in outdoor activities has significantly declined and children are spending very little time playing outside. Parents negatively perceive children playing outdoors unsupervised. Competition for parks' customers from private facilities is increasing as visitors are more attracted by amenities than natural resources.

Habitat Management – Healthy and abundant populations of many fish and wildlife species exist in our state; however, others are declining. Nuisance wildlife is increasing, resulting in more human-wildlife conflicts (including damage to property and crops). Some invasive species populations (i.e., aquatic and terrestrial, flora and fauna) are expanding and replacing native species. Few species are being removed from the threatened and endangered species list because recovery of these species is difficult and expensive. Plans exist for recovery and restoration, but funds for these programs are still minimal. Urban and suburban sprawl is constantly increasing, which causes additional loss and fragmentation of quality habitat. Size of private land tracts is decreasing and this fragmentation contributes to management challenges. Water quality has improved in many streams and lakes over the past few decades, but some waters still remain below state standards.

Information/Education/Communication – Customers and partners are seeking more information and educational services from all components of the Agency. Demand for fisheries and wildlife technical guidance on private and public lands is increasing. Few Mississippi schools have comprehensive environmental or conservation education curriculum. Hunter and boating safety programs have resulted in significant declines in accidents as recreationists are better informed and safer today, but current delivery methods need to be evaluated. New tools (e.g., internet, cable/satellite, smart phones, social networking sites, webcast, text messaging, video conference, etc.) have greatly enhanced our ability to communicate, but it is still challenging to effectively reach both traditional and new audiences with our conservation message.

Agency's Internal Management System

To guide agency operations, the MDWFP has implemented a comprehensive planning process that includes a strategic plan, an operational plan, and review and feedback sessions. The strategic plan is designed to be dynamic and updated annually to ensure the Agency continually remains focused on current conservation challenges. The operational plan provides specific strategies and actions to address the issues identified in the strategic plan. Each bureau is required to complete a bi-annual report that provides accomplishments and status for each action item listed in the operational plan. The report is presented to Executive staff as part of a review and feedback session to ensure effective and efficient operation. The operational plan is updated annually to determine appropriate actions items for the next fiscal year.

In addition, the Board of Commissioners for MDWFP meets monthly to hear public comments, address policy changes, and monitor the financial activity of the agency.

Agency Goal, Objectives, Strategies and Measures by Program

Program 1: Support Services

Goal A: Enhance the MDWFP's capability to manage its resources and to operate effectively and efficiently, with accountability at all levels

Objective A.1. Ensure prompt and accurate issuance of hunting and fishing licenses and boat registration

Outcome: Percentage change in the number of license sales and boat registration for hunters and anglers

Strategy A.1.1: Hunting and Fishing license issued
Output: Number of hunting licenses sold
Output: Number of fishing licenses sold
Output: Number of combination licenses sold

Strategy A.1.2: Boat Registration issued
Output: Number of boat registrations issued

Objective A.2: Implement innovative approaches to encourage youth and adults to participate in outdoor recreation and become conservationists

Outcome: Percentage of Mississippians participating in outdoor recreation and better understanding of conservation

Strategy A.2.1. Administer the Youth Participation Initiative
Output: Number of participants
Output: Number of applicants
Efficiency: Number of participants per year
Efficiency: Cost per participant.
Explanatory: Participation by applicants may change each year

Strategy A.2.2 Administer the Hunter Education program
Output: Number of certifications
Output: Number of instructors
Efficiency: Number of certifications per year
Efficiency: Number of instructors per year

Program 2: Fisheries

Goal A: Conserve Mississippi's fish and their habitat

Objective A.1: Develop and enhance programs to maintain or improve fish populations and aquatic habitats

Outcome: Percentage of management plans updated.

Strategy A.1.1: Update existing fish management plans based on sampling results and develop management plans on waters where plans are not in place
Output: Number of plans updated
Output: Number of new plans written
Explanatory: Management plans are written for each public water body where fisheries sampling occurs
Explanatory: Availability of sampling data

Strategy A.1.2: Identify degraded or marginal habitats and develop strategies for habitat improvements
Output: Number of degraded or marginal habitats identified

Efficiency: Average number of -hours spent developing habitat improvements for degraded or marginal habitats

Explanatory: Landowner/agency cooperation

Explanatory: Availability of funds for habitat projects

Strategy A.1.3. Strategy: Work with other agencies to evaluate habitat restoration and conservation projects affecting fish populations in public waters

Output: Number of projects evaluated

Efficiency: Cost per evaluation

Explanatory: Availability of private, state and federal funds

Strategy A.1.4: Increase fish production by expanding or renovating fish hatcheries according to DFA-BOB 5 year plan

Output: Number of production acres (ponds) added or renovated

Output: Number of fingerlings produced

Efficiency: Cost per pond

Efficiency: Cost per fingerling produced

Efficiency: Ratio of fingerlings stocked to production acreage

Explanatory: Favorable conditions for construction

Explanatory: Availability of funding to match Sport Fish Restoration (SFR) dollars

Goal B: Encourage participation in fishing and nature-based recreation and provide quality opportunities for safe and accessible enjoyment of our natural resources

Objective B.1: Expand the Community Assistance Program (CAP)

Outcome: Percentage change in the number of improved public fishing opportunities at community/urban fisheries

Strategy B.1.1: Complete CAP summary reports and distribute to cooperators

Output: Number of CAP water body reports completed

Efficiency: Number of water bodies enrolled in the program

Strategy B.1.2: Increase outreach efforts to promote CAP

Output: Number of counties/cities enrolled in CAP

Efficiency: Enroll counties/cities to actively participate

Explanatory: Concerns by counties/cities about perceived liability/maintenance

Objective B.2: Increase participation in and distribution of fishing rodeos throughout Mississippi

Outcome: Percentage increase of participation in recreational fishing

Strategy B.2.1: Administer the MDWFP Fishing Rodeo program

Output: Number of fishing rodeos

Output: Number of participants

Efficiency: Number of fishing rodeo requests received per year

Efficiency: Number of participants per year

Explanatory: Number of events requested and the number of events held are determined by public interest and budget availability.

Strategy B.2.2: Annually evaluate the fishing rodeo program

Output: Number of participants attending multiple events in a single year

Output: Number of participants attending same event in years following first event

Output: Number of participants who purchase a hunting/fishing license

Efficiency: Percentage attending multiple events to total attendance

Efficiency: Ratio of number attending same event in previous years to total number at event in current year

Efficiency: Ratio of the number of participants in an age cohort who attended an event and purchased a license to the total number of participants in that age cohort who attended an event

Objective B.3: Evaluate public water bodies at risk of losing public access and develop partnerships to acquire lands to maintain/increase public fishing access

Outcome: Percentage change in the number of "at-risk" public waters' access to fishing and recreation evaluated.

Strategy B.3.1: Identify and prioritize boating access needs and acquire permanent access sites

Output: Improve access facilities in high usage areas

Efficiency: Development cost per facility

Explanatory: Availability of sites owned by State or County entities

Strategy B.3.2: Develop partnerships with non-federal agencies and organizations that can provide SFR 25% match

Output: Number of partnerships with other State, County, or Municipal entities on projects beneficial to recreational user groups

Output: Number of new Boating Access facilities will be developed for public use at no cost to Agency

Efficiency: The cost of the partnership will be less than the cost to the agency to provide the match. SFR expenditure would not be better used in another project

Efficiency: Percentage of agency money used.

Explanatory: Reduction in SFR match provided by agency

Explanatory: Cooperators available funding

Goal C: Improve public understanding of and involvement in conservation and management of fisheries

Objective C.2: Increase the availability of fishing information and education

Outcome: Percentage change in the number of media contacts and number of programs and partnerships.

Strategy C.2.1: Increase public awareness of fisheries conservation and management efforts through all available media outlets

Output: Number of media contacts

Explanatory: Dependent on staff time

Strategy C.2.2: Develop and implement new programs and partnerships to improve awareness of fisheries conservation

Output: Number of program participants

Efficiency: Cost per program or partnership

Explanatory: Dependent on staff time

Explanatory: Availability of willing partners

Goal D: Expand efforts to help private landowners advance conservation and address factors that limit managing their lands effectively

Objective D.1: Utilize the technical guidance program to address demands of private landowners

Outcome: Aquatic habitat on private lands that supports healthy watersheds and fisheries.

Strategy D.1.1: Utilize Fisheries staff strategically throughout the state to address the demand for technical assistance

Output: Number of technical guidance contacts

Efficiency: Cost per contact

Explanatory: Sufficient staffing to meet demand

Strategy D.1.2: Conduct workshops with partners to provide information on management of private lakes and ponds

Output: Number of workshops completed

Efficiency: Cost per workshop attendee

Explanatory: Holding workshops in conjunction with MSU extension offices increases attendance and lowers cost per attendee

Objective D.2: Increase public awareness of the technical guidance program

Outcome: Better awareness of fisheries management techniques.

Strategy D.2.1: Implement a targeted marketing campaign to increase awareness of the technical guidance program (i.e., county NRCS offices, MSU Extension offices, and farm supply stores)

Output: Number of offices and stores contacted

Efficiency: Percentage of technical guidance requests that are generated from these sources

Explanatory: Willingness of offices and stores to participate

Goal E: Manage public waters to optimize benefits to fish and the Mississippians who enjoy these resources

Objective E.1: Maintain and improve state-owned lakes to provide enjoyable outdoor recreation

Outcome: Percentage increase in lake permit sales

Strategy E.1.1: Conduct inspections of state-owned lakes and facilities to prioritize maintenance requirements

Output: Number of inspections performed

Efficiency: Percentage of lakes inspected

Explanatory: Dependent on staff time

Strategy E.1.2: Develop a Facilities Maintenance and Improvement Plan for every state fishing lake based on facility inspections

Output: Number of plans written

Efficiency: % of lakes having a plan

Explanatory: Dependent on staff time

Strategy E.1.3: Conduct state lake user surveys and incorporate results into state lake management

Output: Number of surveys completed.

Efficiency: Percentage of satisfied lake users

Explanatory: Dependent on staff time.

Explanatory: Funds to maintain facilities

Strategy E.1.4: Prioritize and renovate existing state lakes to improve fishing

Output: Number of lakes renovated

Efficiency: Average cost per renovated lake

Explanatory: Reduction in SFR funding

Program 3: Wildlife

Goal A: Conserve Mississippi's fish and wildlife and their habitats

Objective A.1: Ensure that sound, science-based management benefits Mississippi's wildlife and their habitats

Outcome: Percentage change in number of projects to sustain healthy and abundant wildlife populations in order to provide quality hunting and non-consumptive uses.

Strategy A.1.1: Identify, prioritize, and fund cooperative research projects that address current and future management uncertainties

Output: Number of research projects

Efficiency: Average cost per project per year

Explanatory: Availability of Federal Aid in Wildlife Restoration funds

Explanatory: Continuance of cooperative research agreement with MSU

Strategy A.1.2: Improve harvest monitoring of white-tailed deer and wild turkeys by implementing mandatory harvest reporting and tagging system

Output: Updated harvest data to inform management

Efficiency: Rate of harvest reporting by hunters

Explanatory: Legislative authority to implement system

Explanatory: Cost of implementation

Strategy A.1.3: Report research findings through traditional media, agency website, and other new media outlets

Output: Number of reports (articles, interviews, technical reports)

Explanatory: Research projects not complete

Objective A.2: Conservation partnerships within the Agency and with other conservation organizations will be developed or enhanced to collaboratively address conservation challenges

Outcome: Improved leveraging of funds and resources.

Strategy A.2.1: Develop and manage Memorandums of Understanding (MOUs) and Cooperative Agreements (CAs) with other agencies and organizations to share resources and personnel

Output: Number of MOUs/CAs

Efficiency: Cost to implement each MOU/CA

Efficiency: Number of MOUs/CAs developed per year

Explanatory: Willingness of partners to engage

Strategy A.2.2: Participate in the development and/or implementation of Joint Ventures, Conservation Delivery Networks, Landscape Conservation Cooperatives, and other state and regional partnerships

Output: Number of partnerships

Efficiency: Cost per partnership

Explanatory: Availability of staff and funding to pursue partnerships

Strategy A.2.3: Develop and support local, regional, and national conservation initiatives

Output: Number of conservation initiatives supported

Efficiency: Man-hours to develop initiatives

Explanatory: Number of complaints received by the agency

Strategy A.2.4: Participate in local natural resource groups

Output: Number of resource groups in which MDWFP participates

Efficiency: Man-hours of staff time

Explanatory: Lack of public interest

Goal B: Encourage participation in hunting and nature-based recreation and will provide quality opportunities for safe and accessible enjoyment of our natural resources and parks

Objective B.1: Increase quality hunting opportunities on public and private lands

Outcome: Quality hunting opportunities that meet the needs and desires of Mississippi sportsmen.

Strategy B.1.1: Acquire lands to provide diverse outdoor recreational opportunities with an emphasis on hunting

Output: Acres of land added to the WMA system

Efficiency: Cost per acre

Efficiency: Acres of land added per year

Explanatory: Availability of funds

Explanatory: Availability of suitable properties from willing sellers

Strategy B.1.2: Identify state parks and state lake properties where public hunting is feasible and implement hunting opportunity

Output: Number of state parks and lakes with hunting opportunities

Efficiency: Number of new hunting opportunities per year

Explanatory: Feasibility of lands to provide quality, safe hunting opportunities

Strategy B.1.3: Develop simple, effective hunting regulations to facilitate compliance and manage wildlife populations

Output: Annual hunting regulations

Efficiency: Cost per hour of staff time

Explanatory: Legislative authority

Strategy B.1.4: Provide managed public hunting access on private lands

Output: Acres of private land available for public hunting

Efficiency: Cost per acre

Explanatory: Availability of funds to compensate landowners

Explanatory: Availability of suitable properties

Strategy B.1.5: Develop and implement a regular hunter survey to establish satisfaction benchmarks and define quality hunting opportunities

Output: Results of survey

Efficiency: Cost of survey

Explanatory: Availability of funds and timing to conduct survey

Objective B.2: Efforts will be expanded to serve non-consumptive users while still maintaining a traditional focus on hunting

Outcome: Increase compatible, non-consumptive use on WMAs

Strategy B.2.1: Develop and implement compatible, non-consumptive programs on WMAs to serve non-traditional users

Output: Number of non-consumptive programs

Efficiency: Man-days of non-consumptive use of these programs

Explanatory: Lack of public interest

Explanatory: Conflicts between user groups

Goal C: Improve public understanding of and involvement in conservation and management of wildlife

Objective C.1: Programs will be adapted or developed to increase conservation awareness and improve public perception of the MDWFP

Outcome: Percentage of public aware of conservation and the mission of the MDWFP

Strategy C.1.1: Work with Marketing staff to develop newsletter items that encompass a broad suite of conservation topics, not just hunting opportunities

Output: Number of newsletter articles

Efficiency: Cost per article

Explanatory: Lack of staff time

Strategy C.1.2: Work with media staff to develop social media informational materials

Output: Number wildlife generated social media posts

Efficiency: Number of wildlife generated social media posts per year

Efficiency: Man-hours per month of time dedicated to social media

Strategy C.1.3: Update current informational and educational materials

Output: Number of Information & Education materials updated

Efficiency: Cost per material

Objective C.2: We will use public lands as demonstration areas to inform and educate the public on important management and conservation issues

Outcome: Increased public awareness of and involvement in conservation

Strategy C.2.1: Identify priority local resource issues and use WMAs to demonstrate management techniques and successes

Output: Number of issues identified

Efficiency: Man-hours of staff time

Explanatory: Public interest

Explanatory: Availability of funds to implement management practices

Strategy C.2.2: Develop and conduct workshops on WMAs and/or private lands

Output: Number of workshops conducted per year

Efficiency: Man-hours per workshop

Efficiency: Number of workshops conducted per year

Explanatory: Public interest

Goal D: Expand efforts to help private landowners address factors that limit managing their lands effectively

Objective D.1: Increase the availability of technical and financial resources for management activities on private lands

Outcome: Increased number of acres in well managed habitat.

Strategy D.1.1: Develop a state-level, cost-share program for management activities on private lands

Output: Number of landowners enrolled.

Output: Number of acres enrolled

Efficiency: Cost per acre of management

Explanatory: Availability of funding

Explanatory: Cooperation of landowners

Explanatory: Financial support of conservation partners

Strategy D.1.2: Develop and maintain a network of professional contacts to deliver conservation programs and perform management activities

Output: Number of contacts

Explanatory: Increase in number of contacts due to increased programs

Objective D.2: We will improve effectiveness of conservation program delivery

Outcome: Efficiently delivered MDWFP programs to provide well-managed habitat in Mississippi's most important areas for wildlife

Strategy D.2.1: Develop and maintain a habitat database to catalog and analyze spatially explicit data related to habitat practices on private lands

Output: Data regarding management history, habitat type, effects of management

Output: Number of acres per county

Explanatory: Availability of data

Strategy D.2.2: Develop, maintain, and use customer database to foster effective working relationships and improve proactive communication

Output: Number of contacts in database

Explanatory: Time spent in development and maintenance of database

Strategy D.2.3: Conduct regular surveys of landowners to evaluate customer satisfaction

Output: Number of surveys

Efficiency: Cost per survey

Explanatory: Participation by landowners

Explanatory: Availability of funding for surveys

Goal E: Manage public lands and waters to optimize benefits to wildlife and the Mississippians who enjoy these resources

Objective E.1: Resources will be strategically utilized to manage habitats on state-owned and U. S. Army Corps Of Engineers (COE) WMAs to maintain healthy wildlife populations

Outcome: Number of actively managed acres on WMAs

Strategy E.1.1: Develop and implement adaptive management plans for 3 state-owned / COE WMAs per year

Output: Number of management plans developed

Efficiency: Man-hours per management plan

Explanatory: Lack of staff time

Strategy E.1.2: Continue to utilize and refine the regional team approach to actively manage state-owned and COE WMAs

Output: Number of projects completed

Efficiency: Number of projects completed per team

Explanatory: Feasibility of weather conditions

Explanatory: Availability of appropriate equipment

Strategy E.1.3: Develop and utilize GIS to make informed habitat management decisions on WMAs

Output: Number of acres under management input into GIS

Efficiency: Man-hours to input and maintain data

Explanatory: Availability of personnel and appropriate technology to input data

Objective E.2: Baseline inventories will be developed for habitat parameters on state-owned and COE WMAs

Outcome: Percentage change in the number of acres surveyed, forest inventories conducted, and acres of unique habitats.

Strategy E.2.1: Identify and monitor invasive species

Output: Acres of WMAs occupied by invasive species

Efficiency: Acres of WMAs surveyed per year

Explanatory: Number of properly trained personnel

Explanatory: Appropriate equipment to document and monitor invasive species

Strategy E.2.2: Conduct forest inventory on WMAs

Output: Standing value of MDWFP-owned timber lands

Output: Number of Acres of WMAs with up to date forest inventory data

Efficiency: Hours spent conducting inventories per year

Efficiency: Number of Acres of WMAs with up to date forest inventory data per year

Explanatory: Number of properly trained personnel

Strategy E.2.3: Identify and map unique habitats (e.g. pitcher plant wetlands, longleaf stands, remnant prairie)

Output: Number of unique sites

Output: Number of acres of unique habitats

Efficiency: Number of habitats identified and mapped per year

Explanatory: Existence of sites

Explanatory: Capability of personnel to identify sites

Program 4: Law Enforcement

Goal A: Conserve Mississippi's fish and wildlife and their habitats

Objective A.1: Ensure compliance with laws and regulations

Outcome: Percentage of change in the number of hours patrolled on land and water, vacant positions filled, citations issued, and criminal investigations conducted.

Strategy A.1.1: Enforce laws and regulations on land and water

Output: Number of hours patrolled on land

Output: Number of hours patrolled on water

Output: Number of hours patrolled per region

Strategy A.1.2: Increase the number of conservation officers and retain current officers

Output: Number of vacant positions filled

Explanatory: Availability of funding to hire conservation officers

Explanatory: Number of qualified applicants recruited in a year and turnover ratio of officers trained by MDWFP that are hired elsewhere

Explanatory: Officer Salary, competition with other Agencies for qualified applicants

Strategy A.1.3: Identify high-violation areas and implement work details targeting these areas

Output: Number of citations per county

Output: Number of citations per year

Explanatory: Availability of staff due to unfilled county positions

Output: Number of details implemented to target high violation areas

Output: Number of Citations issued per detail

Explanatory: Availability of staff due to vacant positions

Strategy A.1.4: Utilize Special Operations to apprehend, disrupt, and dismantle criminal enterprises that cause losses in fish and wildlife resources

Output: Number of criminal investigations

Efficiency: Cost per investigation

Objective A.2: Improve Enforcement Bureau training program

Outcome: Percentage change in the number of hours of training in order to provide a better trained and more versatile officer

Strategy A.2.1: Provide opportunities for advanced training
Output: Number of hours of training an officer receives
Efficiency: Cost per man hour of officer training
Explanatory: Availability of training due to funding issues

Goal B: Encourage participation in hunting and nature-based recreation and will provide quality opportunities for safe and accessible enjoyment of our natural resources and parks

Objective B.1: Expand shooting sport programs and facilities

Outcome: Increase number of shooting sport programs, shooting ranges available to the public, and user participation in programs

Strategy B.1.1: Explore opportunities to expand shooting sports in schools (i.e., Scholastic Clays)

Output: Number of schools contacted in regards to shooting sports
Efficiency: Percentage of schools participating in shooting sports
Explanatory: Funding for shooting sport programs in schools

Strategy B.1.2: Construct or improve ranges where needed

Output: Number of shooting ranges in State available to public
Efficiency: Ranges per square mile
Efficiency: Average cost of shooting sports program
Explanatory: Range location may depend on population size and resources

Strategy B.1.3: Evaluate programs by customer participation

Output: Number of users
Efficiency: Number of users per range
Efficiency: Number of users per year
Explanatory: Competition with other ranges
Explanatory: Public awareness of ranges

Objective B.2: Administer the boating education program

Outcome: Percentage change in the number of boating accidents and boating-related fatalities

Strategy B.2.1: Make boating education classes more accessible

Output: Total number of classes conducted
Explanatory: Availability of staff to conduct classes due to a limited work force
Explanatory: Availability of internet access by participants

Strategy B.2.2: Solicit non-agency partners (i.e., Schools, Cub Scouts, Boy Scouts, etc.) to conduct and/or host additional classes and coordinate with other Bureaus to provide additional classes at MDWFP facilities

Output: Total number of classes provided at MDWFP facilities
Output: Total number of classes provided by non-agency partners
Explanatory: Availability of staff to conduct classes due to a limited work force
Explanatory: Availability of non-agency partners to conduct/host classes

Strategy B.2.3: Evaluate programs by student participation

Output: Total number of student increase or decrease per class

Explanatory: Student interest

Strategy B.2.4: Recruit additional volunteer instructors

Output: Number of volunteers recruited per year

Explanatory: Number of volunteers will fluctuate year to year

Goal D: Expand efforts to help private landowners advance conservation and address factors that limit managing their lands effectively

Objective D.1: Improve working relationships with landowners

Outcome: Percentage change in the number of contacts an officer makes with private land owners, and landowner complaints in order to provide a positive working relationship between officer and landowner

Strategy D.1.1: Actively communicate with landowners through radio, phone, public talks, etc.

Output: Number of private land contacts made in a day of routine patrolling

Efficiency: Average number of contacts an officer makes per day

Explanatory: Number of contacts made with landowners might be hindered due to lack of officers in that county

Strategy D.1.2: Document landowner complaints through 1-800-BE SMART, phone conversations at regional offices, and webpage comments

Output: The number of complaints generated

Efficiency: Average number of complaints relative to timing of year

Explanatory: Number of complaints by landowners may vary due to certain times of year (Hunting/Fishing and Boating seasons)

Goal E: Manage public lands and waters to optimize benefits to wildlife and the Mississippians who enjoy these resources

Objective E.1: Improve communication between officers and public

Outcome: Percentage change in the number of contacts during patrols, and events attended in order to encourage and enhance compliance with laws and regulations

Strategy E.1.1: Interact with the public during patrols

Output: Number of land contacts per officer

Output: Number of water contacts per officer

Strategy E.1.2: Interact with the public at special events

Output: Number of events attended by officers

Efficiency: Hours per officer an officer spends at an event

Explanatory: Size of event will determine the number officers that will attend

Goal F: We will enhance MDWFP's response capabilities during critical incidents, natural disasters, and special details

Objective F.1 Provide a specially-trained rapid response tactical team (Special Response Team [SRT]) to protect the public, property, and Mississippi's natural resources

Outcome: Percentage change in the number of operations conducted in order to enhance public safety and increase operational coordination between law enforcement agencies

Strategy F.1.1: Support MDWFP regional operations

Output: Number of operations

Explanatory: Regional operations may not require SRT deployment

Strategy F.1.2: Conduct and support search and rescue operations

Output: Number of operations per year

Strategy F.1.3: Conduct and support high-risk law enforcement operations

Output: Number of operations

Efficiency: Number of operations per year

Explanatory: Officer safety considerations

Strategy F.1.4: Assist and support other law enforcement agencies

Output: Number of support operations

Efficiency: Number of support operations per year

Explanatory: Other agencies may not require or request support

Program 5: Special Projects

Goal A: Acquire, manage, and conserve wildlife habitat, and other natural resource areas

Objective A.1: Acquire areas for hunting or fishing use, outdoor recreation, or for the preservation of any species of wildlife or fish

Outcome: Percentage change in the number of acres available for enhanced opportunities for public hunting, fishing, and outdoor recreation and wildlife conservation

Strategy A.1.1: Purchase or lease land to promote habitat and conservation management

Output: Number of acres available to purchase or lease

Efficiency: Cost per acre

Program 6: Motor Vehicle

Goal A: Ensure the efficient and effective operation of the MDWFP motor vehicle fleet

Objective A.1: Establish and implement a motor vehicle replacement program

Outcome: Percentage change in the number of vehicles in the fleet in order to maintain efficient and reliable fleet of vehicles

Strategy: A.1.1: Monitor vehicle usage records

Output: Number of vehicles in fleet

Efficiency: Maintenance and repair cost on vehicles in fleet

Program 7: Parks and Recreation

Goal A: Encourage participation in hunting and nature-based recreation and will provide quality opportunities for safe and accessible enjoyment of our natural resources and parks

Objective A.1: Identify existing amenities most desired by park users

Outcome: Increased visitation and satisfaction by park users

Strategy A.1.1: Focus development on most desired amenities identified in Statewide Comprehensive Outdoor Recreation Plan (SCORP)

Output: Number of amenities identified in the National Park Service-approved SCORP

Output: Number of grants awarded

Efficiency: Number of amenities identified at each park

Efficiency: Number of grants awarded at each park

Explanatory: Availability of grant funding

Explanatory: Interested stakeholders

Objective A.2: Identify and conserve historic and natural resources

Outcome: Conservation of each Park's natural resources, historic integrity, and associated recreational opportunities

Strategy A.2.1: Develop a partnership with the Department of Archives and History to sustain current CCC structures and interpret their histories

Output: Number of projects to restore CCC structures

Explanatory: Sufficient funding to complete projects

Strategy A.2.2: Work with the Wildlife Bureau to develop forest management plans for each Park

Output: Number of plans completed

Explanatory: Availability of funding to complete forest inventory

Strategy A.2.3: Work with other Bureaus to identify important or unique ecosystems or sites at each Park

Output: Number of unique sites identified

Explanatory: Availability of staff to complete the project

Objective A.3: Increased visitation at parks by both traditional and non-traditional user groups

Outcome: Increased visitation, knowledge, and appreciation of natural resources and recreation opportunities across all age and ethnic groups

Strategy A.3.1: Promote amenities, histories, or natural resources through all available outlets per year

Output: Number of overnight guests (cabin/camping)

Output: Number of day use guests

Output: Number of promotions

Explanatory: Competition with other attractions

Explanatory: Economic factors

Strategy A.3.2: Conduct, host or perform special events and/or informational/educational seminars to promote park amenities, history or natural resources

Output: Number of events per park

Output: Number of visitors per event

Strategy A.3.3: Host MDWFP-focused public programs such as hunter education, fishing rodeos, Archery in MS Schools events, etc.

Output: Number of events per park

Output: Number of visitors per event

Explanatory: Sufficient facilities or amenities

Program 8: Mississippi Museum of Natural Science

Goal A: Sustain Mississippi's fish and wildlife and their habitats

Objective A.1: Biological collections will grow to reflect environmental and population changes over time

Outcome: Percentage change in the number of specimens cataloged in order to maintain a more spatially and temporally complete record of Mississippi's biota, resulting in enhanced technical guidance to managers and educational outreach to the public

Strategy A.1.1: Increase cataloged specimens by at least 10,000 annually through backlog reduction and new acquisitions including biological surveys and donations

Output: Number of specimens cataloged during report year

Efficiency: Number of specimens cataloged during report year : average number of specimens cataloged annually

Explanatory: Availability of funds and staff

Explanatory: Weather conditions conducive to specimen collections

Objective A.2: Natural heritage database records will be continuously updated to reflect environmental and population changes over time

Outcome: Ensure that Heritage database remains largest, most complete database of Mississippi's rare species and habitats

Strategy A.2.1: Increase database annually to address changes and data gaps
Output: Number of database records entered
Efficiency: Number of records entered : average annual number of records entered
Explanatory: Availability of new data

Strategy A.2.2: Use remote sensing to produce updated priority habitat maps as needed / as requested

Output: Number of maps created

Efficiency: Number of maps created : Average annual number of maps created

Objective A.3: Strategically acquire and analyze tissue samples to meet the growing demands for conservation genetics

Outcome: Provide a conservation genetics database for use in population monitoring, biological classification, and forensics

Strategy A.3.1: Strategically increase tissue collection annually

Output: Number of tissues added to collection during report year

Efficiency: Number of tissues added to collection during report year: average number of tissues added annually

Explanatory: Available funds

Explanatory: Available staff

Goal B: Encourage participation in hunting and nature-based recreation and provide quality opportunities for safe and accessible enjoyment of Mississippi's natural resources and parks

Objective B.1: Improve and enhance walking trails and outdoor play areas to boost visitor experiences at the Mississippi Museum of Natural Science

Outcome: Connect Museum visitors to nature through usage of trails and outdoor play areas

Strategy B.1.1: Use Museum trail committee and partners to assess and improve current nature trails and produce plan for future management

Output: Number of trail committee meetings/trail evaluations

Output: Number of volunteers and partnerships developed

Output: Number of new play areas

Efficiency: Number of evaluations to formulate plan

Efficiency: Number of volunteers and partnerships per year

Explanatory: Lack of full time staff for trails

Strategy B.1.2: Pursue additional trail grant awards

Output: Number of awards

Explanatory: Lack of available grant funds for trail maintenance

Strategy B.1.3: Train staff, volunteers, and teachers about nature play

Output: Number of nature play workshops offered to staff, volunteers, and teachers

Efficiency: Cost for nature play workshops for staff and volunteers

Efficiency: Fee-based workshops offered to public

Explanatory: Cost of nature play workshops for staff and volunteers

Strategy B.1.4: Solicit customer feedback to evaluate customer satisfaction and future needs

Output: Number of customer feedback surveys conducted

Explanatory: Participation by customers

Objective B.2: Enhance and develop Museum programs to reach and encourage non-traditional users to participate in outdoor recreation in Mississippi

Outcome: Connect new users to nature through outdoor recreation

Strategy B.2.1: Identify potential non-traditional user groups, such as underserved communities and schools that might be attracted to participate in outdoor recreation

Output: Number of new user groups reached by education staff

Efficiency: Average cost for time, materials, and transportation to serve new user groups

Explanatory: Lack of transportation for underserved user groups

Strategy B.2.2: Develop and implement plan to enhance programs and increase contact with non-traditional users to inform them of opportunities

Output: number of new programs each year that target non-traditional user groups

Efficiency: cost to market and implement these programs/events

Explanatory: lack of public interest in new programs

Strategy B.2.3: Solicit feedback from non-traditional user groups to assess future needs

Output: Number of evaluations

Efficiency: Number of evaluations returned/year

Explanatory: non-traditional user groups become user groups

Strategy B.2.4: Increase promotion of events and expand use of programs to achieve greater public and sponsor participation in all outdoor recreation activities

Output: Number of participants

Efficiency: Number of participants per year

Explanatory: Competition with other museums and tourist attractions

Goal C: Improve public understanding of and involvement in conservation and management of wildlife

Objective C.1: Provide conservation education programs that meet state and national standards

Outcome: Increased number of students that understands the importance of natural resource conservation

Strategy C.1.1: Maintain statewide outreach education with four regional educators covering schools and events in North, Central, Southeast, and Southwest Mississippi

Output: Number of programs provided to all counties

Output: Number of participants

Explanatory: Recruitment and retention of qualified educators affect our ability to maintain these programs

Strategy C.1.2: Maintain 4 outreach education regions to serve schools

Output: Number of outreach educators

Efficiency: Qualified outreach educators in each region

Explanatory: may be difficult to recruit and retain qualified regional educators

Explanatory: funding must be available

Strategy C.1.3: Expand conservation education and outdoor learning opportunities to communities and schools not currently participating

Output: Number of programs provided to underserved counties

Output: Number of participants

Explanatory: Lack of awareness from school districts

Strategy C.1.4: Increase offerings of hands-on, inquiry based, early childhood education programs

Output: Number of early childhood programs statewide

Output: Number of participants per program

Explanatory: Sufficient funding to implement program

Strategy C.1.5: Evaluate with participant numbers and participant feedback

Output: Number of workshop and program evaluations

Efficiency: Number of evaluations received/year

Explanatory: Participant feedback

Objective C.2: Update and enhance Museum exhibits

Outcome: Percentage increase in the number of technology improvements, traveling exhibits, visitors, and surveys in order to maintain or increase visitor use at the Museum

Strategy C.2.1: Use current technology to improve the way information is presented on at least three permanent exhibits annually

Output: Number of technology improvements

Output: Number of technology improvements completed

Explanatory: Availability of funds

Strategy C.2.2: Host popular traveling exhibits annually

Output: Number of traveling exhibits hosted

Output: Number of visitors during traveling exhibits

Efficiency: Number of traveling exhibits hosted/year

Efficiency: Cost per traveling exhibit

Explanatory: Availability of exhibits

Explanatory: Competition with other attractions
Explanatory: Reduced visitation due to economic factors

Objective C.3: Hold special events at Museum of Natural Science

Outcome: Focus on conservation issues and outdoor recreation opportunities in Mississippi

Strategy C.3.1: Develop and/or modify special events to meet the needs of diverse audiences

Output: Number of special events designed toward diverse audiences

Output: Number of participants at special events

Efficiency: Number of special events per year

Efficiency: Number of participant per event

Explanatory: Competition with other events

Goal D: Expand efforts to help private landowners advance conservation and address factors that limit managing their lands effectively

Objective D.1: Provide technical guidance and project reviews related to species and habitats of conservation concern on private lands

Outcome: Provide well-managed private lands that support species of conservation concern and development practices that minimize effects to species and habitats of conservation concern

Strategy D.1.1: Provide environmental reviews on development projects as requested to assist developers in minimizing impacts to species and habitats

Output: Number of reviews

Explanatory: Number of requests received

Strategy D.1.2: Reinitiate the Natural Areas Registry and Scenic Streams Program

Output: Number of areas and streams enrolled

Efficiency: Number of areas and streams enrolled per year

Efficiency: Cost per area or streams enrolled

Explanatory: Landowner interest in program

Strategy D.1.3: Provide technical guidance related to habitat conservation on private lands for species of special concern as requested

Output: Number of site visits in which guidance was provided

Efficiency: Number of guidance site visits per year

Explanatory: Landowner interest

Goal E: Manage public lands and waters to optimize benefits to wildlife and the Mississippians who enjoy these resources

Objective E.1: Conduct applied biological research and surveys on public lands and waters

Outcome: Percentage change in the number of surveys completed in order to have a more complete understanding regarding biological structure and function of ecosystems on public lands will result in more efficient and effective management

Strategy E.1.2: Partner with other Bureaus to conduct biological research and surveys on state-owned wildlife management areas, lakes, and parks

Output: Number of biological surveys conducted on state-owned lands

Efficiency: Number of biological surveys conducted on state-owned lands during report year: total number of biological surveys conducted during report year

Explanatory: Favorable weather conditions