

**MISSOURI
STATE REPORT**
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Financial Update

The Fiscal Year (FY) 2022 budget for the Missouri Department of Conservation (MDC) continues to represent less than 1 percent of the total state government budget in Missouri. The primary sources of revenue are the one-eighth of 1 percent Conservation Sales Tax, at about \$133.8 million, and permit sales and federal reimbursements, at about \$73.9 million. Total receipts for FY 2021 were \$218.5 million.

Conservation pays by enriching our economy and quality of life. In Missouri each year, more than 1 million hunt or fish and nearly 2 million view wildlife. In Missouri, the total economic impact of fish and wildlife recreation and the forest products industry is more than \$15.3 billion annually. Expenditures and retail sales from fish and wildlife recreation and forest products support over 111,000 jobs.

Highlights of Conservation Challenges and Successes

MDC Inclusion and Diversity Update. MDC has taken intentional steps to build a more inclusive and diverse conservation community and workforce. These steps include: enhancing staff knowledge and skills, establishing relationships with historically underserved communities, developing internal and external messaging, evaluating staff demographics, expanding recruitment pipelines, refining agency dashboard measures, and creating an Inclusion and Diversity Council. A primary goal of the Council is to develop and implement a 3- to 5-year plan that guides the agency's inclusion and diversity efforts.

International Recognition for Sustainable Forest Management. MDC is proud to maintain its Sustainable Forestry Initiative® (SFI) certification for management on 696,000 acres of public lands. Managing forest resources in a sustainable manner is critical to providing quality habitat needed to maintain healthy fish and wildlife populations.

Tree Seedling Program. The George O. White Nursery grows and distributes about 2 million low-cost seedlings every year to Missouri citizens. Each year, it processes over 14,000 customer orders. It provides free seedlings to approximately 90,000 fourth-grade students for Arbor Day and assists the Monarchs Collaborative with hundreds of milkweed root stock to be planted by Master Naturalist and Master Gardener groups.

Hatchery Program. MDC manages 9 fish hatcheries (5 cold water and 4 warm water). In the past year, approximately 1.4 million trout, 6 million warm water sportfish, and 1,200 Topeka Shiners that are federally listed endangered species were stocked to help maintain quality fishing and restore native populations.

Conserving an Endangered Fish. MDC developed a partnership with biologists at the U.S. Army Corps of Engineers (USACE) to further efforts to monitor lake sturgeon spawning activity and habitat use in the Upper Mississippi River. The partnership was awarded a Sustainable Rivers Grant which funded telemetry equipment needed to track lake sturgeon movement, a USACE intern to help with monitoring, and a hydrologic model of the tailwaters of Lock and Dam 26.

Mobile Applications. MDC continues to use technology, such as free mobile applications, to connect people to nature. MO Outdoors enables users to find MDC conservation areas, fishing accesses, hiking trails, shooting ranges, and nature centers by location or based on their desired types of outdoor activities. MO Fishing allows anglers to buy fishing permits and see fishing structures in Missouri water bodies. MDC's most popular app, MO Hunting, allows hunters to buy permits, view regulations, and check-in animal harvests. At the end of FY21, the 3 apps had more than 982,000 lifetime installs.

Chronic Wasting Disease (CWD). Each year, MDC tests a sample of the state's deer population for CWD. This important effort allows MDC scientists to better understand where the disease is on the landscape so that management actions can be applied (especially post-season targeted culling), learn about how the disease is spreading, and keep the public informed. MDC sampled and tested more than 32,000 deer for CWD between July 2021 and April 2022. Of the deer sampled, 86 tested positive. Those deer bring the total number of CWD cases found in the state to 292 since the first case in wild deer was found by MDC in early 2012. Including recent sampling efforts, MDC has collected more than 210,000 tissue samples for CWD testing since the disease was first detected.

Invasive Species. MDC is actively engaged with and serving in leadership roles within key invasive species collaborations including the Scenic Rivers Invasive Species Partnership, Missouri Invasive Plant Council, Missouri Invasive Forest Pest Council, Missouri Feral Hog Elimination Partnership, and Missouri River Basin Invasive Carp Technical Committee. As a part of the reorganization, MDC created a dedicated Invasive Species Coordinator position to serve as the primary point of contact for all invasive species topics. The coordinator will reinvigorate MDC's internal Invasive Species Working Group using the principles of the Missouri Comprehensive Conservation Strategy (CCS) to prioritize invasive species to be addressed, locations of focus, and timing of actions. The emphasis and strategic approach, complemented by increased partnerships, will lead to successes in increased knowledge and involvement in the prevention, management, control, and eradication of priority invasive species. For example, staff are already implementing research on invasive carp population dynamics, movement, and removal efforts through basin partnerships and USFWS funding.

Invasive Species Strike Team. MDC, in partnership with the Missouri Department of Transportation and the Missouri Prairie Foundation, continue efforts to control invasive species along Missouri's highways. In 2021, the team treated 1,302 miles of highway right-of-way within

MDC's Ozark and Southeast regions, equating to nearly 15,700 total acres of highway right-of-way covered and 4,006 acres sprayed. Treatment effectiveness is estimated at 75-85%.

Eliminating Feral Hogs in Missouri. MDC is part of a very productive network of federal and state agencies called the Missouri Feral Hog Elimination Partnership (Partnership). All members of the Partnership are dedicated to total elimination of feral hogs from the state and removed 9,857 hogs from Missouri's landscape in 2021. This is about 3,000 fewer hogs than the Partnership removed in 2020 despite scouting about twice as many acres and assisting almost twice as many landowners. This is because there are fewer hogs on the landscape. The Partnership used funding from three Farm Bill grants to hire four private landowner outreach specialist positions through the University of Missouri Extension. That funding is also being utilized to purchase equipment that will aid landowners in repairing feral hog damage to their property. MDC also created 10 full time term hog trapper positions in the fall of 2021 These trappers are now working with USDA full-time trappers and other Partnership staff.

Helping Missourians Discover Nature. MDC's Discover Nature Schools conservation education curriculum is being used in 984 (32 percent) Missouri schools to help teachers engage students with hands-on, outdoor learning from grades pre-K to 12. In addition, the Discover Nature Fishing program helps children and families have fun outdoors by learning to fish. The statewide program provides lessons and events to help kids and families gain skills and confidence to fish on their own. MDC staff also provide formal nature-based educational programs to over 300,000 citizens yearly. These programs cover a diverse array of topics including, but not limited to, hunting, angling, hiking, birdwatching, kayaking, shooting sports, and native plants.

Archery in the Schools Program Builds Champions. MDC provides Missouri National Archery in the Schools Program (MoNASP) grants to schools for equipment and free teacher and staff training for those administering the program. More than 55,000 Missouri students from 440 schools participated in MoNASP during the 2020-2021 season. This year's state tournament was held in Branson and hosted 4,342 student archers from 218 schools. The bullseye tournament had 3,071 archers and 3D tournament had 1,271 archers, with some archers competing in both. Archers ranking in the top 10 for their division and the top ranked schools, move on to nationals.

Protection. MDC's 2021 class of 15 conservation agent trainees graduated in October and have eagerly begun their new field assignments around the state. A new class of 19 conservation agent trainees started the academy March 16, 2022. The 1,200-hour training, conducted over the course of six months, is POST certified. The curriculum consists of training in legal studies, criminal investigations, defensive tactics, boating operations, communications, and resource management.

MDC's new canine program officially started with the commissioning of five retriever-style breeds in May 2021. It has already resulted in 154 additional outreach programs to 6,794 participants and dozens of additional deployments to aid in poaching investigations and missing person searches.

Listening to Missourians.

Due to the pandemic, public input opportunities in much of the recent year continued virtually instead of meeting in person. In addition to the annual hunter and angler surveys, MDC gathered input from the bowhunter survey, wild turkey brood survey, private landowner survey, waterfowl

post-harvest survey, the black bear survey, and the Stream Team survey. Comments were collected for the Black Bear Season Framework, along with blue and flathead catfish regulation changes under consideration at Mark Twain Lake, proposed paddlefish regulation changes, and comments were collected regarding the Wild Turkey Management Plan. Stakeholders participated in a virtual meeting where they provided input on the furbearer season review, and MDC met with partners to evaluate the deer management plan. Over 500 partners, representing more than 160 organizations, participated virtually in MDC's fifth annual Conservation Partners Roundtable. The event provided partners an opportunity to hear from MDC and strengthen collaborative efforts.

Conservation Volunteers. COVID-19 affected many Missourians, including MDC volunteers. However, despite the pandemic, people continued to volunteer their time on conservation projects. In calendar year 2021, Master Naturalist volunteers contributed 50,460 hours of service to conservation projects and activities in their local communities. In addition, 3,034 volunteer members of the Missouri Forestkeepers Network contributed more than 10,000 hours monitoring forest health and taking care of trees. Volunteers at nature centers, interpretive sites, and shooting ranges, along with hunter education instructors and fishing education instructors, recorded 35,314 hours in 2021. Stream Team volunteers contributed 70,722 hours during calendar year 2021.

Communicating with Missourians. MDC social media channels, including Facebook, Twitter, Instagram, and YouTube, continue to increase followers and engagement. Facebook is MDC's largest social media channel with more than 320,000 followers. MDC's website has 7.1 million unique visitors annually. MDC utilizes email communications to reach 798,632 subscribers and the free *Missouri Conservationist* and *Xplor* magazines are mailed to more than 806,000 individuals to share the value of fish, forest, and wildlife resources. The MDC Wild Webcast series highlights key conservation topics and provides a unique opportunity to ask live questions of MDC experts. MDC hosts a podcast, Nature Boost, to connect more youth and young adults to nature.

Missouri Comprehensive Conservation Strategy (CCS). Through a truly landmark effort, Missouri is the first and only state in the nation to integrate its State Wildlife Action Plan, State Forest Action Plan, watershed priorities, public and private land conservation opportunities, community conservation framework, and other conservation challenges and opportunities into a single, comprehensive strategy meeting the requirements of both the U.S. Fish & Wildlife Service and USDA Forest Service. Missouri's CCS embraces landscape-scale conservation, working to maintain, enhance, restore, and re-create healthy natural systems. This approach will increase the resiliency of these systems to potential threats, increase connectivity among habitat systems, and provide benefits to a broad suite of species, including but not limited to those of greatest conservation need. These robust landscapes also will support more reliable production of various sustainable, renewable resources (e.g., forest products, grazing forage, seed, etc.) and other benefits (e.g., outdoor recreation, human health benefits, ecosystem services, species recovery) that improve Missouri's economy and quality of life. This integrated approach proactively encourages an increase in connection between citizens and nature and ensures the responsible use of limited federal- and state-entrusted, partner, and citizen resources.

Community Conservation. Community conservation is one of MDC's top priorities and we continue to rely on partners and partnerships to reach new audiences. A model has been developed as an extension of the CCS that assists MDC's eight regions in determining the highest priority

areas. The criteria utilized in developing the model include race/ethnicity, poverty rates, access to green space, tree canopy coverage, and land cover type.

In 2021, Heartland Conservation Alliance partnered with MDC, Cornerstones of Care, the Full Employment Council, and other local partners to create a “green career corps” now known as the Nature Action Crew. The corps will help fill a need for trained landscapers that can work with native plants in the Kansas City Metro Area, provide opportunities for careers in conservation for underrepresented residents, work on mutually beneficial habitat projects in the Blue River Watershed, and enhance the connection of underrepresented populations to nature.

MDC partnered with Springfield Public Schools to develop a 3-year “college and career pathway” program at Hillcrest High School to teach students how to properly manage land, water, soil, plants, and animals with a focus on how management affects the quality of life for present and future generations. Students in the program utilize MDC’s “Conservation Planning Tools for Missouri Communities” manual as a textbook for the Restoration Ecology course. The Pathway program also provides industry recognized credential opportunities and readiness for a variety of college and career opportunities.

MOHIVES, a partnership program that was started in Kansas City, provides training and job opportunities for underrepresented youth. MOHIVES has converted five vacant lots to apiaries. In addition to their apiaries, MOHIVES has converted several vacant lots surrounding the apiaries to native forbs. Honeybees open doors to conversations about native pollinators, and the partnership is expanding into St. Louis and central Missouri in 2022.

Private Land Partnership Programs. MDC has matching fund agreements with the USDA Natural Resource Conservation Service (NRCS) for the Audubon Conservation Ranching-Regional Conservation Partnership Program (RCPP), the Regional Grassland Bird and Grazing Land Enhancement RCPP, and the Restoring Glade and Woodland Communities RCPP. The Conservation Ranching RCPP annually provides \$80,000 of MDC match for \$290,000 of financial assistance from NRCS to prepare pastures to be certified for bird-friendly beef. The Regional Grassland Bird RCPP helps cattle producers implement grazing practices that provide habitat for grassland birds while providing quality forage for cattle. MDC provides approximately \$100,000 annually to match NRCS’ annual financial assistance contribution of \$192,000. The Restoring Glade and Woodland Communities RCPP, combines approximately \$64,000 annually from MDC with NRCS’ annual financial assistance contribution of \$272,000 directly to private landowners to assist in management and restoration of glades, woodlands, and forest habitats. MDC has also teamed up with Quail Forever to offer the Restoring and Improving Monarch Ecosystems RCPP along the I-35 corridor in Northwest Missouri.

Technical Assistance for Landowners. MDC provides landowners with technical assistance to benefit fish, forest, and wildlife conservation. Over 33,000 contacts were made last year helping landowners with \$1.6 million in funding for conservation practices and program cost-shares. MDC’s Missouri Outdoor Recreational Access Program (MRAP) enhances habitat management and public access to outdoor recreation opportunities on private land. Currently, 73 property owners have signed agreements to provide recreational access on nearly 18,000 acres. The MRAP is funded through the USDA Voluntary Public Access and Habitat Incentive Program. Missouri’s

Call Before You Cut program provides information to forest landowners who may be contemplating a timber sale. Since inception, over 4,700 landowners who own over 537,000 acres have received a free packet of information.

Helping Communities One Tree at a Time. In FY22, MDC funded 65 Tree Resource Improvement and Maintenance grants totaling \$605,000. This funding helps communities with urban forestry projects such as master plans, tree inventory, education, hazard tree removals, pruning, and planting. MDC continues to partner with Forest ReLeaf of Missouri, a unique, nonprofit public/private partnership. Even with the difficulties of Covid-19, they managed to provide free trees to communities statewide. A total of 4,699 hours of service was provided by 81 volunteers, Priority ReLeaf provided 2,294 trees to low-income areas or areas affected by natural disaster, and Project Communitree provided 9,454 trees to be planted on public property.

Assisting Communities Improve Wildfire, Prescribed Fire, and Emergency Response. MDC awarded \$382,367 in Volunteer Fire Assistance grants to 141 rural fire departments to purchase wildfire clothing, small equipment, and provided vehicles and emergency response equipment through its Federal Excess Property programs. A Federal Hazard Mitigation grant aided in training and equipping Prescribed Burn Cooperatives for habitat restoration on private lands. MDC funded 47 grants to volunteer fire departments to purchase workman's compensation coverage, protecting 928 volunteer fire fighters.

Missourians for Monarchs Collaborative. MDC is working with Missourians for Monarchs, a collaboration of more than 45 conservation and agricultural organizations, state and federal agencies, utility companies, agribusinesses, academia, volunteer organizations, and cooperatives, to carry out a collaborative monarch and pollinator conservation plan for Missouri. To date, the collaborative has been successful at creating or improving over 450,000 acres of new pollinator and monarch habitat. Current focus of the collaborative is on monitoring milkweed numbers on these acres to ensure that milkweed population goals are being met.

Agriculture Partnerships. Using two cooperative positions created in partnership with MDC, the Missouri's Corn and Soybean Associations, and the USDA Natural Resources Conservation Service, and MFA, the state's largest landowner cooperative, a pilot Biodiversity Credit Program was designed to reward ag producers for establishing and managing diverse pollinator buffer plantings. The pilot will seek to find a corporate buyer for the credits.

Inaugural Black Bear Hunting Season. Missouri's first black bear hunting season was held October 18 – 27, 2021 and resulted in a total harvest of 12 bears. The limited and highly regulated hunting season was established to provide opportunity for Missourians to participate in the sustainable harvest of this valuable natural resource. Conservative permit and harvest quotas were established for the state's 3 Black Bear Management Zones (BMZ) to provide for sufficient hunter opportunity while allowing for continued growth of the bear population. The Conservation Commission recently approved permit and harvest quotas for the 2022 black bear hunting season which will be Oct. 17 – 26, 2022 or until a BMZ-specific harvest quota is reached. Hunters are allowed to use firearms or archery, and the use of bait or dogs is prohibited.