

**MISSOURI
STATE REPORT**
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Financial Update

The Fiscal Year (FY) 2023 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 \$148.4 million, and permit sales and federal reimbursements, at about \$76.5 million. Total receipts for FY 2022 were \$237.8 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 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 Values. MDC's newly refreshed values include: Dedicated to our mission; Responsible stewards; Trusted professionals; and One MDC. Associated behaviors were developed to highlight the expectations that we will evolve as an agency through continuous improvement, honor the public's trust by using public funds responsibly, value our individual discipline expertise by investing in continuous learning, and fostering an inclusive environment through collaboration and communication.

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 13,000 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 1.6 million trout, 5.4 million warm water sportfish, and 1,500 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. Last year, 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. The project documented another spawn event last spring at Lock and Dam 26 near Alton, IL which was featured on national news outlets. Staff continue to implant transmitters and track movement of lake sturgeon while working with lock masters at Lock and Dam 26 to manipulate water flows to enhance lake sturgeon spawn likelihood.

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 FY22, the 3 apps had more than 1.2 million 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 33,000 deer for CWD between July 2022 and April 2023. Of the deer sampled, 117 tested positive. Those deer bring the total number of CWD cases found in the state to 409 since the first case in wild deer was found by MDC in early 2012. Including recent sampling efforts, MDC has collected more than 243,000 tissue samples for CWD testing since the disease was first detected.

Invasive Species. MDC continues active engagement and leadership 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. MDC's dedicated Invasive Species Coordinator serves as the primary point of contact for all invasive species topics and has reinvigorated MDC's internal Invasive Species Working Group. This group uses 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, is leading to successes in increased knowledge and involvement in the prevention, management, control, and eradication of priority invasive species. For example, staff continue 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 2022, four teams treated 1,101 miles of highway right-of-way within MDC's Ozark and Southeast regions, equating to over 14,000 total acres of highway right-of-way covered and 3,156 acres sprayed. MDC provided increased contributions to the partnership to support the expansion of the Strike Teams to all districts of the state. Twenty-eight new Strike Teams will be equipped with UTV's, injector sprayers, and logo-wrapped covered trailers in summer 2023. MDC provided funding for new sprayers and trailer wraps and trained over 75 MoDOT personnel on invasive plant identification and treatment methods in March of 2023.

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). The Partnership is comprised of over 15 federal and state agencies, as well as agriculture and conservation NGOs, collaborating under the common goal of eliminating feral hogs from public and private lands throughout Missouri. During 2022, the Partnership removed 6,289 hogs from the landscape, assisted 709 landowners, and scouted 3,707,473 acres. In addition to on-the-ground operations, the Partnership placed equipment at Soil and Water Conservation District offices for landowners to use in areas with high feral hog activity; distributed mail-out landowner surveys to collect information regarding feral hog damage, mitigation, and removal efforts; and conducted landowner and community outreach activities throughout the southern portion of the state.

Helping Missourians Discover Nature. Discover Nature Schools (DNS) curricula is being used in 1,180 (38.5 percent) of Missouri schools to support teachers engaging students with inquiry based, hands-on, outdoor learning from pre-K to 12th grade. Two new DNS curricula were introduced: *DNS Kindergarten: Bears Through the Seasons* and *DNS First Grade: Exploring Missouri*, each meets all state science standards for the specific grade level. Trained teachers also receive prepared teacher kits to support indoor and outdoor conservation focused lessons.

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 75,000 Missouri students from 571 schools reported participation in MoNASP during the 2021-2022 season. This year's state tournament was held in Branson and hosted 3,648 student archers from 244 schools. The bullseye tournament had 3,632 archers and 3D tournament had 1,616 archers, with some archers competing in both.

Protection. MDC's 2022 class of 17 conservation agent trainees graduated in October and have eagerly begun their new field assignments around the state. A new class of 16 conservation agent trainees started the academy March 16, 2023. 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.

Listening to Missourians.

The Department continues to offer virtual public input opportunities. In addition to annual hunter and angler surveys, MDC conducted surveys related to participant and landowner satisfaction with the Missouri Recreational Access Program, collected input from stakeholders who attended the regional Wetlands Summit hosted by the Conservation Federation of Missouri and MDC, conducted a survey and a series of focus groups with landowners in CWD core areas to better

understand motivations and barriers to participating in targeted culling, conducted listening sessions in Kansas City to inform the further development of community conservation programs and services, and initiated several new research projects to support MDC's initiatives related to inclusion and relevancy. MDC also hired an external consulting firm to collect feedback on the state's hunting and fishing regulations to determine barriers to recruitment of new hunters and anglers and reactivation of latent hunters and anglers. Approximately 260 partners, representing 115 organizations, participated in MDC's sixth annual Conservation Partners Roundtable, which was once again held in person. The event provided partners an opportunity to hear from MDC and strengthen collaborative efforts.

Expanding Recreational Opportunities. As part of efforts to reach new audiences, MDC is working to expand recreational activities on conservation areas. A new MDC bicycle regulation went into effect Feb. 28, 2022, that allows bicycles and some types of electric bicycles (e-bikes) on multi-use bicycle trails and most service roads. In addition, a rock-climbing bluff is now open at Rockwoods Reservation in St. Louis County. A dozen climbing routes were developed in partnership with the BETA Fund, a local organization of rock-climbing enthusiasts, whose mission is to protect and conserve outdoor resources in the Midwest for recreational rock climbing.

Conservation Volunteers. In calendar year 2022, Master Naturalist volunteers contributed 58,532 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 42,597 hours in 2022. Stream Team volunteers contributed 58,088 hours during calendar year 2022.

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 340,000 followers. MDC's website has 5.6 million unique visitors annually. MDC utilizes email communications to reach 806,590 subscribers and the free *Missouri Conservationist* and *Xplor* magazines are mailed to more than 834,000 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.

MDC will engage local governments, citizens, and private organizations within municipalities and adjacent developing areas to connect people with nature, raise awareness of the community benefits provided by healthy fish, forest, and wildlife resources, promote conservation of these resources through technical assistance, and encourage development that protects native fish, forest, and wildlife diversity.

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 \$36,000 of MDC match with 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 \$120,000 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 \$3 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, 52 property owners have signed agreements to provide recreational access on over 15,000 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 FY23, MDC funded 65 Tree Resource Improvement and Maintenance cost share 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. A total of 6,877 volunteer hours of service was provided by volunteers, 196 planting projects were completed, 11,927 trees were planted, and 19,500 tree seedlings were potted to be grown out for future plantings.

Assisting Communities Improve Wildfire, Prescribed Fire, and Emergency Response. MDC awarded \$455,321 in Volunteer Fire Assistance grants to 161 rural fire departments to purchase personal protective equipment, suppression equipment, and provided vehicles and emergency response equipment through its Federal Excess Property programs. In early 2022 MDC released a revised version of its Private Landowner Burn Workshop. The new course “Prescribed Burning for Missouri Land Managers” is an online based program, with a required field exercise, which introduces private landowners to prescribed fire and provided a mechanism for landowners and burn contractors to obtain a “Certified Burn Manager” certification. Since its release, 1,628 private landowners and contractors have utilized the course.

Missourians for Monarchs Collaborative. MDC continues 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 monarch and pollinator conservation plan for Missouri. As of December 31, 2022, the collaborative has created or improved over 470,000 acres of new pollinator and monarch habitat. Due to volunteer constraints and the amount of acreage to monitor/inventory, in 2022, the Collaborative decided to utilize the same algorithm currently used by USFWS’s Monarch Conservation Database as the metric of measurement for the number of milkweed stems per acre. The Collaborative, and its members, will still monitor established monarch/pollinator habitat; however, the overall goal for Habitat Monitoring will now be to assess the quality of established habitat, rather than the number of milkweed stems per acre.

Aquatic Partnerships. In March 2023, an Institute of Fisheries, Wetlands and Aquatic Systems was launched through a partnership with MDC, the Missouri Conservation Heritage Foundation, and the University of Missouri’s College of Agriculture, Food and Natural Resources. This new institute will be a national model for how we positively leverage the power of partnerships to bring together fisheries, wetlands, and other aquatic systems into one integrated area of study to not only further science, but also develop future talent in the conservation field. The institute will support cultivating conservation professionals through workforce development, research, and public policy.

Ozark Hellbender Recovery Milestone. MDC and partners reached a significant milestone in population recovery efforts of the endangered Ozark hellbender as a zoo-raised hellbender successfully reproduced on the Current River was documented. MDC partnered with the Ron and Karen Goellner Center for Hellbender Conservation, a part of the Saint Louis Zoo WildCare Institute, and other agencies in the early 2000s to breed the salamanders in captivity and rear eggs collected from the wild to combat drastic population declines. Once the captive-bred larvae reached between 3-8 years old, they were released in their native Ozark aquatic ecosystem. Biologists began releasing a few zoo-raised hellbenders in Missouri in 2008, increasing the number of released animals to 1,000 or more per year beginning in 2012.