Department of Conservation

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Brought into being by public demand for better management of the state's wildlife and forest resources, the Department of Conservation was created in 1937 by an amendment to the Missouri Constitution. It is headed by the Conservation Commission, whose four members, no more than two of whom may belong to the same political party, are appointed by the governor with the advice and consent of the Senate. They serve without compensation for staggered six-year terms. The commission appoints the department director, who in turn appoints the staff. The staff is selected on the basis of training, experience, ability and character.

Two deputy directors assist with programs and activities carried out by divisions of fisheries, wildlife, forestry, protection, private land services, outreach and education, resource science, administrative services, and human resources. An assistant director provides leadership for special projects and initiatives assigned by the director (notably legislative liaison and partnerships with other entities), and supervises the policy coordination section. This section investigates issues and recommends actions in support of the director and staff, involving strategic planning, environmental coordination, public opinion, and geographic and social analysis.

The department's principal sources of revenue are receipts from the sale of hunting and fishing permits, and the one-eighth cent conservation sales tax. Funds are also received on a matching basis from federal aid to forestry, wildlife, fisheries, under provisions of the Endangered Species Act and from one-time grants and contracts.

Department funding was increased in 1977 when voters approved a constitutional amendment for an addition to the state sales tax, earmarked for conservation use. Since then the department has acquired approximately 462,000 acres of public land for wildlife, fisheries, and forestry conservation and public recreation, and has expanded many programsnotably conservation education, law enforcement, forestry, fisheries, wildlife and private land



STEPHEN C. BRADFORD Member Conservation Commission



ANITA B. GORMAN Member Conservation Commission



CYNTHIA METCALFE Member Conservation Commission



LOWELL F. MOHLER Member Conservation Commission

services, and activities dealing with endangered species, non-game wildlife and natural areas.

The department's goals and objectives are communicated to the public in its mission statement: "The mission of the Department of Conservation is to protect and manage the fish, forest and wildlife resources of the state; to serve the public and facilitate their participation in resource management activities; and to provide opportunity for all citizens to use, enjoy and learn about fish, forest and wildlife resources."

Conservation Commission

Bradford, Stephen C., (D), Cape Girardeau, July 1, 2007;

Gorman, Anita B., (R), Kansas City, July 1, 2005; Metcalfe, Cynthia, (D), St. Louis, July 1, 2007; Mohler, Lowell F., (R), Jefferson City, July 1, 2009.

Administrative Services Division

The administrative services division is made up of three sections responsible for information technology, business and support services, and design and development. In addition, the division administers clerical and maintenance personnel serving many department field offices, federal aid coordination, real property negotia-



with other state agencies.





JOHN W. SMITH Deputy Director



STEPHEN J. WILSON Deputy Director



GERALD E. ROSS Assistant Director



CAROLYN AUCKLEY Executive Assistant to Director / Commission Secretary



CARTER CAMPBELL Administrative Services Division Administrator

The business and support services section is responsible for the business administration activities of the department. It maintains liaison with the State Treasurer, State Auditor, Office of Administration and Department of Revenue in the performance of these activities. It is responsible for revenue collection, accounts payable, accounting, purchasing, budget, payroll, data processing, inventory control and reimbursement documentation for federal aid programs. It is also responsible for distribution of hunting and fishing permits statewide to retail businesses for sale to the public. Revenue from the conservation sales tax, hunting and fishing permits, federal reimbursement, public use areas, sale of timber, publications and surplus property is received and deposited in the state treasury for department programs.

It is responsible for procurement, repair and disposition of vehicles, marine and other mechanical equipment; management of aircraft operations; operation of a distribution center and warehouse for publications, products and media loan services; operation of offset printing, mailing and sign production services; buildings and grounds maintenance services; coordination of the department's earthquake/emergency preparedness plans; and administration of the employee uniform/clothing policy.

The design and development section administers the department's construction and development program and is responsible for develop-

ment and maintenance of areas owned and/or leased by the department.

The section consists of two units: engineering and construction. The staff consists of professional engineering, architecture, land surveying, construction and support staff in the areas of drafting and computer applications. All work is highly specialized to meet the needs of the department's resource programs. Typical capital improvements projects are the development of wetlands, reservoirs, hatcheries, buildings, nature centers, river and lake public use access areas, stream corridor improvements and hunter safety training facilities.

The engineering unit handles all aspects of design and development of capital improvement projects including-performing investigations, feasibility studies and environmental assessments; preparing design drawings and contract specifications and administering construction contracts. Boundary, construction and topographic surveys of all land acquisition and development projects are performed under the direction of the division's registered surveyors. Support staff provide technical assistance in the areas of computer applications; state-of-the-art AutoCAD drafting applications; and construction quality control. The cartography unit archives all lands acquired and produces various

area maps. The construction unit maintains department facilities, and its skilled construction crews construct countless special projects throughout the state.

To effectively design and develop the department's diverse projects, staff combines experience in the fields of survey, soil mechanics, hydrology, river hydraulics, structural, architectural, mechanical, electrical, environmental, computer, CAD, drafting, construction, quality control and maintenance. This unique combination of engineering expertise and biological understanding allows creation of outdoor recreational developments that blend with the surrounding environment and enhance and expand resource habitat.

Creative thinking and innovative solutions by staff are the norm in coming up with original designs and new applications of existing techniques, such as covered floating docks at reservoirs to provide disabled user fishing access; automated control systems at river pump stations; ingenious wetland water control structures; rock-lined levee sections to work with instead of against flood waters; special light switch sensors in office buildings to lower utility costs; and disabled user accessible boat loading platforms at stream and river access ramps.

Fisheries Division

Missouri has about 1,163,000 surface acres of water comprised of nearly 900 public lakes (24% of surface acres), 486 miles of Mississippi River and 553 miles of Missouri River (22% combined), almost 16,000 miles of other permanent streams (8%), over 39,000 miles of intermittent streams (3%) and about 500,000 private lakes (43%). These waters support rich and diverse aquatic communities that are used, enjoyed and appreciated by millions of people each year. Fishing is one of the most popular and economically important uses of these waters. Each year, Missouri's 1.2 million sport anglers (16 years of age and older) make about 11.8 milllion fishing trips and generate more than 1.6 billion dollars in economic activity.

The Fisheries Division's mission is "to professionally manage the fish and associated aquatic plants and animals of Missouri for the use and enjoyment of the people." Its goals are to: maintain aquatic ecosystem integrity and protect aquatic biodiversity; provide fair, responsive services; provide quality fishing; and increase the number of people engaged in the use and enjoyment of the state's aquatic resources.

To carry out this mission and pursue these goals, the division has fisheries management staff in the department's eight regions. Management efforts are supported by five coldwater fish



NORMAN P. STUCKY Fisheries Division Administrator

hatcheries, five warmwater fish hatcheries, a Stream Unit and central office staff. The division has 190 permanent and term employees and varying numbers of temporary employees.

Regional fisheries management staff (headquarters in Cape Girardeau, Columbia, Kansas City, Kirksville, St. Joseph, St. Louis, Springfield and West Plains, and other staff in the Camdenton, Chillicothe, El Dorado Springs, Hannibal, Lebanon, Neosho, Sullivan, Clinton and Sedalia offices) are responsible for monitoring and maintaining the quality of the aquatic resources, managing the public fisheries resources for quality fishing, providing technical stream and lake management advice to private landowners and other public agencies, providing and assisting with public information and education programs, assisting with other department programs and representing the division and department on matters pertaining to the aquatic resources in their region.

The five warmwater hatcheries (Blind Pony, Chesapeake, Hunnewell, Indian Trail and Lost Valley) rear the fish needed to stock public waters, suitable private lakes, and waters used for special fishing events and aquatic resources education. Their staff also develop methods of rearing endangered species. The five coldwater hatcheries (Bennett Spring, Maramec Spring, Montauk, Roaring River and Shepherd of the Hills) rear the trout needed to stock public waters. Their staff are also responsible for stocking and managing the popular Bennett Spring, Maramec Spring, Montauk and Roaring River trout parks. The fish pathologist diagnoses and, when appropriate, treats diseases and parasites in public and private waters and for private, state and federal fish hatcheries.

The Stream Unit is responsible for working cooperatively with the Missouri Department of Natural Resources on administering the Stream Team and Volunteer Water Quality Monitoring programs, producing and distributing *Stash Your Trash* litter bags to canoe liveries, and providing stream training and technical services to region-

al division and department staff and other agencies.

The division's central office staff direct and administer division programs, work on the acquisition and development of public fishing and boat access areas, administer the Community Assistance Program and Corporate and Agency Partnership Program, administer Federal Aid grants, coordinate angler recognition programs, develop and revise technical and popular written materials, distribute a weekly fishing report during the fishing season, and provide administrative support for division and department staff.

Forestry Division

The Forestry Division is responsible for management and protection of the state's forest resources. Major program objectives are to improve rural fire protection in all areas of the state; urge and aid forest landowners and forest industries to adopt practices designed to ensure sustainable forests; ensure the proper management and sustainability of public forest lands; and cooperate with public and private agencies in the control and abatement of major attacks of forest insects and diseases.

Some forestry facts: About 13.4 million acres or thirty percent of the land areas of Missouri is covered by commercial forest land. Eighty-four percent of the commercial land is owned by about 200,000 owners. Approximately threefourths of this forest land is oak-hickory type, five percent is shortleaf pine and oak-pine types and the remainder is in cedar and bottomland hardwoods. Missouri's forests support a large forest products industry with about 1,000 manufacturing plants producing lumber, railroad ties, cooperage, cedar and walnut items (including gunstocks and veneer), charcoal and other products. Over \$3.5 billion per year is generated from processing forest products. Missouri leads the nation in the production of charcoal, cedar novelties, gunstocks, walnut bowls and walnut nutmeats.

Division personnel and volunteer rural fire departments annually suppress approximately 4,000 wildfires which burn 60,000 acres of forest and grassland. Although fire control efforts are concentrated in the more heavily forested counties in southern Missouri, protection is provided statewide. Efforts continue to improve rural fire departments statewide and increase fire control efficiency.

Assistance is provided to rural fire districts and volunteer fire departments. Technical assistance, training and federal excess equipment are available at no cost to cooperating fire organizations. Federal legislation provides some funding



ROBERT L. KREPPS Forestry Division Administrator

to qualifying fire organizations on a matching basis. A rural forest fire equipment center is located in Lebanon. The center acquires inventories and distributes federal excess property to rural fire departments.

"Operation Forest Arson" is a program to combat the high number of arson-caused wildfires. This program is combined with the Smokey Bear fire prevention campaign to educate school children.

Through a cooperative program with the U.S. Forest Service, technical assistance is provided to private woodland owners. This service is available statewide and includes tree selection and planting advice, forest management recommendations, forest products utilization and marketing assistance and wildlife management recommendations.

The forest health protection program ensures the continuing health of the forest resources through survey and detection, pest and control evaluations and public information. Pests are monitored and infestations reported through a network of trained citizen "forest keepers." Impact and control evaluations are accomplished through formal damage surveys using both ground and aerial mapping techniques. Public information includes diagnostic clinics, pest workshops, monthly status reports and handouts on common pests.

Tree Resource Improvement and Management II is a cost share program that provides "seed" money for establishment or extension of holistic community forestry programs including tree establishment and tree maintenance and care. The department provides 60% of total costs of projects up to a maximum of \$10,000 for activities such as tree inventory, pruning, hazard tree removal, tree research care and tree planting.

Assistance is provided to forest landowners on resource availability, market information, new technology and training. Individual businesses are encouraged to improve utilization of forest resources and reduce output of residues through efficient environmentally acceptable manufacturing methods.

Since the department was established, over 580,000 acres of forest land have been acquired and are managed as sustainable forest ecosystems. Forest management results include biodiversity, watershed protection, wildlife habitat, forest products and recreational opportunities.

To encourage forest and wildlife plantings, 5 to 7 million seedlings of 70 different tree and shrub species are produced at the George O. White State Forest Nursery to fill over 13,000 orders from Missourians. Every fourth grade student in the state receives an Arbor Day seedling produced at the nursery. Residents can order planting stock after November 1, for delivery the following spring at planting time.

The State Forestry Law was passed by the General Assembly in 1946 to encourage stable and permanent management of privately-owned forest lands. It strengthened department efforts to protect woodlands from fire and timber theft and to assist in forest management, as well as providing partial tax deferment on lands classified as forest crop land.

To be eligible for classification, forest land must conform to the following: market value of the land must not exceed \$400 per acre; tract size must be 20 acres or larger; and the owner must agree to follow basic forest management requirements designed to keep the land in permanent forest production.

Land classified as forest crop land through 1974 is assessed for taxation purposes on a valuation of \$1 per acre; subsequent classification at \$3 per acre. Classification continues for a period of 25 years. To offset the loss of county taxes, the law provides for the department to reimburse counties based on a payment of 75 cents per acre per year on state-owned classified lands and 50 cents per acre per year on privately-owned classified lands. When timber products are cut for sale from classified forest crop land a yield tax on the amount sold is paid by the owner to the department.

Human Resources Division

The Human Resources Division is responsible for development and administration of a department-wide human resources program. It assists in recruiting, selecting and retaining a qualified, dedicated work force. In doing so, it administers a compensation and classification program; group life, medical, accidental death and dismemberment and dependent life insurance programs; maintains the department's official employee records; and administers the







LORNA DOMKE Outreach and Education Division Administrator

department's safety program, including workers' compensation.

It ensures compliance with employment practices related to affirmative action, ADA and drug testing; provides employee training and development opportunities; administers employee assistance and health/wellness programs; and oversees disciplinary proceedings and grievance resolutions.

Outreach and Education Division

The Outreach and Education Division is dedicated to helping Missourians connect with nature in our state in a variety of ways. The goal is to educate young and old about how to sustain a healthy environment, make good use of fish, forest and wildlife resources and also enjoy nature-based outdoor recreation.

One of the division's most popular works is the *Missouri Conservationist* magazine, a source of conservation ideas that has been free to adult Missourians since 1938. More than 450,000 people now receive the magazine directly. A newer quarterly section in the magazine aimed at youth, *Outside/In*, is also produced in special bundles for school children throughout the state.

The website at www.missouriconservation. org has grown tremendously in the past several years as a handy source of conservation information. Highlights include maps and tips for conservation areas to visit, the Missouri Conservationist online, a calendar of events for each region of the state, seasonal hunting and fishing reports, and links to special programs such as Grow Native! and No MOre Trash! A weekly news release, All Outdoors, provides outdoor information on a statewide basis, while a more local perspective is provided through media specialists working directly with news media in each region.

Television viewers can catch *Missouri Outdoors*, the department's Emmy Award-winning TV show on channels throughout the state. The

TV story collections, along with many other conservation videos, are also available free to schools and public libraries. Missourians can also learn about subjects as diverse as how to fish, create excellent wildlife habitat, follow hunting regulations and identify snakes through the division's many free brochures and booklets. In addition, the popular Natural Events Calendar, conservation books and videos are also available at low cost at our conservation offices and nature centers, nature shop catalog or online website.

An outstanding network of conservation learning centers helps bring people and nature together across the state. Nature centers in Blue Springs, Jefferson City, Kirkwood and Springfield and visitor centers in Andrew, Taney, St. Charles and St. Louis counties offer unique nature exploration programs. Staff also teach at the WOW museum in Springfield. The Discovery Center, located in the heart of Kansas City, offers a new approach to learning by featuring six workshops that offer hands-on instruction to school groups and individuals in a building that highlights energy-efficient design. The Jerry J. Presley Conservation Education Center on the banks of the Current River in Shannon County hosts workshops for teachers and others who want to learn more about Missouri ecosystems. Teachers take away practical information and a bit of inspiration to strengthen their own students' understanding of, and caring for, our natural resources.

Scheduled to open in 2004 are two conservation learning facilities: a new St. Louis area visitor center with outdoor exploration stations near the junction of the Missouri and Mississippi rivers at Columbia Bottom, and a new conservation learning center in Cape Girardeau that will feature the natural history of the region as well as hands-on outdoor skills.

Conservation education staff also work with teachers and administrators at public, private and parochial schools, colleges and universities, other governmental education agencies, as well as youth leaders and community leaders to ensure that Missouri's natural resources can be sustained in a healthy environment for generations to come. Services include: developing and distributing a variety of teaching materials correlated with testing needs; assisting with teacher workshops and courses; and providing demonstration teaching and outdoor learning opportunities. Staff works with school leaders who want to use their own outdoor classrooms, which enable students to learn in an "outdoor laboratory" based on natural habitats.

Conservation materials available to teachers and students include a preschool publication Conservation Seeds, a series for K-2 students in a quarterly print format, and *Habitat Packs* for 3rd and 4th grade classes that focus on streams, forests, prairies and wetlands. A quarterly conservation education newsletter for teachers, *The Resource*, is sent to more than 12,000 educators throughout the state.

Another important part of the outreach and education effort focuses on teaching people the skills to enjoy Missouri's outdoors safely and responsibly. As more Missourians grow up in urban landscapes, they have less contact with the natural world. They also feel less and less at home there. The division's outdoor skills specialists work to give Missourians of all ages direct experience in nature-based activities such as camping, fishing, hunting, birding, canoeing, trapping and orienteering. By working with other conservation education staff, the outdoor skills staff teaches not only the hands-on skills, but also an understanding of what it takes to create the healthy habitat on which that skill depends. Outdoor skills staff work with teachers and youth leaders to provide hands-on conservation skills for students. They also create special classes for adults.

The outdoor skills staff also works with conservation agents to coordinate the many volunteers who provide hunter education training. In 1988, that training became mandatory for all persons born on or after January 1, 1967, as a prerequisite to purchase any firearms hunting permit. Since 1988, more than 430,000 people (about 30,000 per year) have been certified to hunt in a safe and ethical way.

Learning to safely handle firearms is part of the training, but hunters also need places to practice. In response to demand, the department in 1972 began to develop shooting ranges that meet or exceed national safety standards for shooting range design. Five staffed training center ranges and numerous unstaffed conservation shooting ranges have been created to provide Missourians with opportunities to practice their skills using firearms and archery equipment. The training centers also provide classroom opportunities for other conservation education.

Private Land Services Division

The mission of the Private Land Services Division is "to help Missouri landowners achieve their land use objectives in ways that enhance the conservation of Missouri's natural resources." The health of much of our state's natural resources is dependent on the land stewardship of private landowners, as approximately 93% of Missouri's landscape is in private ownership. Providing sound natural resource information and technical assistance to these private landowners is critical to long-term sustainability of our forest, fish, and wildlife resources. The Pri-

vate Land Services Division includes a staff of resource professionals dedicated to working with private landowners to improve forest, fish, and wildlife conditions on their property.

We promote the wise use of fish, forest, wildlife, and natural communities through voluntary participation, information, education, and financial assistance. The Wildlife Habitat Improvement Program (WHIP) provides information, seed, and other materials to private landowners for wildlife habitat improvement. The LAWS (Landowners Assisting Wildlife Survival) program provides a cash incentive to landowners for leaving strips of standing grain next to permanent wildlife cover in production agricultural land. This is a two-year program that provides an idle strip of land that is very beneficial to wildlife next to a crop field. A multifaceted cost share program provides incentive payments to landowners for implementation of selected natural resources management prac-

Private Land Services personnel strive to provide prompt, professional assistance to landowners in the evaluation of natural resource conditions and recommend appropriate management and improvement techniques. Private Land Conservationists provide one-on-one assistance, tailoring management recommendations to the land use goals of the landowner and site specific natural resource needs. Teams of resource professionals from all MDC Divisions, work collectively and independently with landowners and other resource partners to address important resource issues. Urban Watershed Conservationists provide assistance to urban developers, homeowners, city and county planners, and others to address land use issues relating to urban sprawl and development. The Wildlife Damage Control Program provides assistance to landowners experiencing damage to their property by wildlife, including beaver, coyote, otter, Canada geese, deer, and others. Wetland Services Biologists provide specialized technical assistance to landowners to restore and manage wetland habitats.

Establishment of partnerships with state and federal agencies, commodity groups, agribusinesses, and conservation organizations help achieve shared natural resource goals. MDC has established effective working partnerships with Natural Resources Conservation Service and Farm Service Agency to integrate fish, forest and wildlife considerations into implementation of Farm Bill programs that include Conservation Reserve Program (CRP), Wetlands Reserve Program (WRP), Environmental Quality Incentive Program (EQIP), and Wildlife Habitat Improvement Program (WHIP). To complement funding available through Farm Bill programs, MDC



N. GEORGE SEEK Private Land Services Division Administrator

offers cost–share that is tailored to regional resource needs and landowner interest. Close coordination with the Department of Natural Resources' Soil and Water Conservation Program maximizes private land resource progress through programs of both agencies. Liaison efforts with Agriculture agencies and groups have fostered communication and understanding of fish, forest, and wildlife issues within the agriculture and conservation communities. These efforts are enhanced through participation in serving on Farm Bill committees, task force groups, and Ag advisory councils.

Private Land Services Division also promotes the development of alternative economic opportunities that benefit Missouri landowners and our natural resources. Native warm season grass planting and management assistance is provided through the Grassland Biologists on thousands of acres each year. "Grow Native!" is a complementary native plant program that encourages the use of native plant materials in backyard landscaping and large acreage of native community restoration. This program also works to increase the supply of true Missouri native plant materials through the Missouri Ecotype Project (MoEP). Production and sale of these native plant materials provides potential alternative economic opportunities for Missouri landown-

We encourage a land stewardship ethic among landowners, strive to increase community involvement, build trust and heighten understanding of the department's overall mission. Our "field force" of Private Land Conservationists, Wetland Services Biologists, Wildlife Services Biologists, Urban Watershed Conservationists, and Wildlife Damage Control Biologists arrategically located throughout the state to provide routine contact with landowners, communities, civil clubs, churches, schools, and others. This interaction with Missouri's citizens provides the foundation for building understanding between different interest groups and ensures a

well informed approach to conservation of our natural resources.

Protection Division

The Protection Division is composed of uniformed conservation agents and support staff. Conservation agents, by official designation, serve as department representatives in their assigned areas and must be well versed on all department programs. They have responsibility for enforcing all statutory enactments related to fish, wildlife and forestry, and rules and regulations promulgated by the Conservation Commission. Conservation agents are certified as peace officers to enforce all state laws on lands owned, managed or leased by the department. Many agents are also commissioned by the U.S. Department of the Interior to enforce federal conservation laws.

Resource law enforcement is very important in managing Missouri's fish, forestry and wildlife resources. Conservation agents are assigned to each county in the state and are responsible for carrying out a wide range of wildlife-related law enforcement duties. Patrols by vehicle, boat and foot are routine. Agents depend heavily on help from local citizens to report violations.

Although law enforcement is the division's primary function, only about half of an agent's time is devoted to that activity. Other duties include hunter education, resource management assistance to landowners, media contacts, and educational and informational programs to youth and adult groups. Numerous surveys, censuses and special field studies are conducted for state and federal fish and wildlife research personnel.

Many special programs require personal contact with individual landowners. Preparation of land-use plans, delivery of seed and wildlife plantings, inspection of developments and periodic progress reports are involved in wildlife habitat improvement and fish stocking programs. Preliminary contacts with landowners and arrangements for wildlife management projects, lake development and other large-scale department projects are delegated to agents. Frequently, community interest and participation in department projects designed to provide or increase local recreational opportunities result from encouragement or initiation by agents.

In addition to fish, wildlife and forestry program duties, many agents present regularly scheduled informational or educational programs on radio and television. A number of newspapers in the state carry weekly outdoor columns prepared by conservation agents.

Although Hunter Education and shooting ranges are administered by the Outreach and



DENNIS STEWARD Protection Division Administrator



DALE HUMBURG Resource Science Division Administrator

Education Division, conservation agents work closely with outdoor skills supervisors to ensure that these important programs reach as many citizens as possible in an efficient manner. Agents help to recruit, train and supervise Hunter Education courses held in their assigned districts.

Two important programs administered by the division in cooperation with the Conservation Federation of Missouri are Share the Harvest and Operation Game Thief.

Share the Harvest provides Missouri deer hunters opportunities to donate all or part of their harvest to needy Missourians. Meat processors, charitable agencies and sponsors work with hunters, the Conservation Federation, Missouri Department of Conservation and corporate sponsors including Shield of Shelter Insurance, Bass Pro Shops and others to distribute much needed meat to hungry families. Over 96,000 pounds of venison were donated by 1,826 deer hunters during the 2002 firearms deer seasons.

Operation Game Thief provides an avenue for concerned citizens to report poaching through a centralized toll-free hotline. Rewards for information leading to the arrest of violators are available. Since the inception of this program in 1982, over 4,000 arrests have been made with information supplied by concerned citizens. Although rewards are offered for information leading to arrests, less than two thirds of citizens supplying information resulting in arrests actually request rewards. This program has been shown to be an effective means of public awareness and involvement in protecting the natural resources of Missouri.

Resource Science Division

Resource Science Division, established in fall 2002, integrates strengths of the research functions previously separated in the Forestry, Fisheries, Natural History and Wildlife divisions. Our mission is to provide the science-based

information needed to conserve, appreciate, and effectively manage the living resources of Missouri. The challenge will be to anticipate the knowledge needed in the next few decades and provide a constant flow of new information collected in the context of a changing ecological and social environment.

The objective of the Resource Science Division is to establish a nationally recognized science-based model for conservation by 1) ensuring ongoing development of a comprehensive and integrated understanding of Missouri's living resources and their values to society, 2) using accumulated knowledge to inform and recommend conservation actions, 3) evaluating the biological and social impacts of conservation actions, and 4) reporting emerging knowledge of Missouri's living resources.

An integrated focus in Resource Science Division is organized around five systems and functions rather than traditional disciplines. These include a Terrestrial Systems and an Aquatic and Wetland Systems group as well as Resource Science groups delivering services for Environmental Health, Science and Policy Support, and Management Evaluation and Support. In addition, the Resource Science Division is dedicated to greater delivery of management assistance, enhanced transfer of resource information, and integrated functions by positioning resource scientists in the field to ensure science support for management evaluation efforts.

Scientists at the Resource Science Center in Columbia coordinate long-term surveys of plant and animal populations and collect the data needed for population management recommendations. The Resource Science Division also is responsible for ensuring that issues associated with species of conservation concern (both rare species and invasive species) are addressed and fully integrated into the functions of the other MDC divisions. Efforts include status assessments, education and outreach, and management, restoration, and recovery guidance on public and private lands.

The Terrestrial Systems and the Aquatic and Wetland Systems groups increase our understanding of plant and animal habitat relationships, monitor population status, and develop harvest and species management recommendations. Staff are regularly involved with specialized projects to monitor wildlife diversity across our state. Projects such as the Flora of Missouri, in cooperation with the Missouri Botanical Garden, are documenting the range and status of the over 3,000 plants found in Missouri. In the Terrestrial Systems group, annual population surveys of reptiles and amphibians, songbirds, mourning doves, wild turkey, white-tailed deer, and bats secure the knowledge necessary for

regulations and habitat conservation. Similar knowledge is provided by the Aquatic and Wetlands Systems group for fisheries management (ranging from headwaters to big rivers and ponds to reservoirs), wetland and waterfowl management (ranging from North American continent to Missouri conservation area), fish communities, watersheds, stream-riparian-floodplain systems, interactions among predators and prey, and species of concern.

Science and Policy Support staff work to link and improve access to databases documenting Missouri's rich biodiversity. A web-based archival and retrieval system allows all employees to enter data and metadata. Data standards and protocols ensure that all users enter and retrieve data with a standard set of queries. By employing these new data management systems and protocols we ensure that databases are usable and accessible. A centralized data warehouse allows users to use advanced querying techniques on large amounts of data.

The Resource Science Division manages Missouri's Natural Heritage Program, which tracks the status and occurrence of 1,121 species of conservation concern and high quality natural communities and ensures that they are carefully documented, mapped, and updated. In 2002, more than 1,200 new records of endangered resources and natural communities were mapped and documented, and updates and corrections were made on approximately 2,600 of the 16,141 total records. We are converting this system to Biotics software, which will allow users more accessibility and usability for conducting queries. Information generated from specialized inventories and surveys are recorded, mapped and documented on the Natural Heritage Database and the Missouri Fish and Wildlife Information System (MoFWIS), a searchable database of habitat, management and distribution data on more than 700 species. Both databases are available on the department's website.

Post season harvest surveys, attitude surveys, and public-use surveys ensure better understanding of the opinions and attitudes of our constituents as well as biological information needed to make the most informed management decisions concerning Missouri's natural resources.

The Resource Science Division is responsible for ensuring statistical rigor in design and analyses of project proposals and monitoring and evaluation projects through biometricians who ensure proper study designs and use advanced statistical techniques to analyze and interpret complex natural resources questions. They also provide an integral link to applying adaptive resources management to field projects within

the department. Advanced training ensures that all employees realize the importance that statistics can play in helping managers design projects that will meet the study objectives.

The Environmental Health unit primarily provides the services that ensure monitoring and protection of Missouri's forest, fish, and wildlife resources. Primary functions include protecting aquatic biodiversity, water quality, forest health, fish health, and providing responsive service to agency staff, the public, and other agencies and entities. Investigations of fish kills and water pollution complaints (working in cooperation with Department of Natural Resources), fish flesh contaminants monitoring (working in cooperation with Department of Health), coordination of a variety of intra- and interagency projects, and providing expertise and guidance on water quality issues also are Environmental Health responsibilities.

Resource Science Division is leading management evaluations by developing protocols, study designs, and funding to evaluate conservation practices with the goal of "learning by doing." This structured approach to information gathering is needed to ensure that the results of management and policy actions are measured and appropriately linked to resource-related outcomes. To better provide services in this regard, Resource Science Division is establishing four field stations that will conduct studies related to better understanding and managing fish, forest and wildlife resources in agricultural systems, big rivers and wetlands, grasslands and forests. In further support of resource managers, the Management Evaluation and Support group provides the specific focus on research and monitoring to support field staff. This involves coordinating, designing, and conducting surveys, monitoring efforts, and applied research aimed at understanding the impacts of management actions on Missouri's natural resources.

Outside partners are essential to accomplishing the Resource Science Division mission. Opportunities to expand research, surveys, inventories and workshops come through active competition for extramural dollars as well as pooling funds with outside partners. The division uses federal aid reimbursement, small grants and cooperatively funded research to gain a better understanding of the fish, forest and wildlife and their habitats.

Wildlife Division

Wildlife Division is responsible for the management of Missouri's wildlife resources to best serve the long-term interests of the people of the state. The roles that Wildlife Division hold in the department are: (1) balancing wildlife resource needs with public expectations, (2) advocating



DAVID W. ERICKSON Wildlife Division Administrator



JANE SMITH General Counsel



ROBBIE BRISCOE Internal Auditor

wildlife conservation, (3) actively seeking ways to inform peers, cooperators and citizens about wildlife stewardship, (4) gathering information to improve management of wildlife, and (5) providing opportunity for all citizens to use, enjoy, and learn about wildlife.

The division manages 372 publicly-owned or leased areas totaling 500,923 acres. Annual accomplishments include: active management of 2,000 acres of glades, 30,000 acres of grassland/prairies and 5,200 acres of savannas; completion of 5,000 acres of timber stand improvement; supervision of 54,500 acres of cropping directly and through permittee farmers; manipulation of 24,000 acres of old fields; and provision of 54,000 acres of wetlands as habitat for resident and migratory wildlife. Public use activities on conservation areas include hunting, nature viewing, hiking and camping. Wildlife Division administers the department's Natural Areas Program and provides specialized support for wildlife diversity, endangered species, outdoor recreation, and habitat restoration activi-

Division field staff provide a wide range of wildlife management assistance to private landowners. On-ground assistance is provided through 1,600 contacts each year. Field staff contact over 11,000 Missouri citizens a year

through workshops and programs, providing technical advice and assistance. Initiatives are being implemented to target species such as prairie-chicken and bobwhite quail that are on decline due to wide-scale changes in land use. Since the department was created in 1937, wildlife restoration programs have been conducted for many species, including wild turkey, whitetail deer, peregrine falcon, osprey, river otter, and ruffed grouse.

General Counsel

The general counsel is responsible for provision of legal advice and opinions. All litigation in which the department, commission or a staff member is a party is handled by the general

counsel. Other functions include services to prospective donors and their attorneys, assistance in employee training and the review of administrative regulations.

Internal Auditor

The internal audit function provides an independent review and evaluation of designated department activities. It assists the commission and director by furnishing analyses, appraisals, recommendations and pertinent information concerning the activities reviewed.

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