



United States Department of Agriculture

Natural Resources Conservation Service



MISSOURI

Annual Report
Fiscal Year 2019

Fiscal Year 2019 Annual Report

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J.R. Flores
State Conservationist

Conserving Natural Resources A Benefit to All Missourians

With my tenure as State Conservationist in Missouri ending Jan. 3, 2020, I am proud of our staff and the work we accomplished to become one of the most active states in the country at delivering financial and technical assistance to private landowners for the Natural Resources Conservation Service.

Our outstanding work was on display the past two years as Missouri farmers and ranchers battled resource concerns and crop damage from drought and record rain events. In 2019, we faced record level flooding in many parts of the state. Eighty-three Missouri counties were declared Federal Disaster areas due to spring and summer rain events. At last report, NRCS has evaluated approximately \$33 million in damage repair costs - with more evaluations to be completed in 2020. We will continue to work with our partners and local sponsors to help those in need.

With those ongoing battles, we still ranked seventh in the Nation with the \$39.6 million we obligated through the Environmental Quality Incentives Program, and we were second nationally in the number of Conservation Stewardship Program contracts. We could not accomplish our workload in meeting the needs of our customers without highly professional and dedicated employees, or without the contributions of our partners.

Our work in Missouri is enhanced by the outstanding partnerships that we have formed over the years. By working together, we are able to provide much more assistance than we could by all working individually.

We were able to make great strides in 2019 in moving toward the construction of two watershed reservoirs that will provide a reliable water source for thousands of people in northern Missouri. The Little Otter Creek reservoir and the East Locust Creek reservoir could each have construction begin within the next couple years. This is in part because of financial contributions from NRCS in 2019.

It has truly been a pleasure representing Missouri NRCS the past 10 years. I really feel like I am finishing my conservation career on a high note. Thank you all for your hard work and dedication to conservation over the past decade. Good luck to you all!

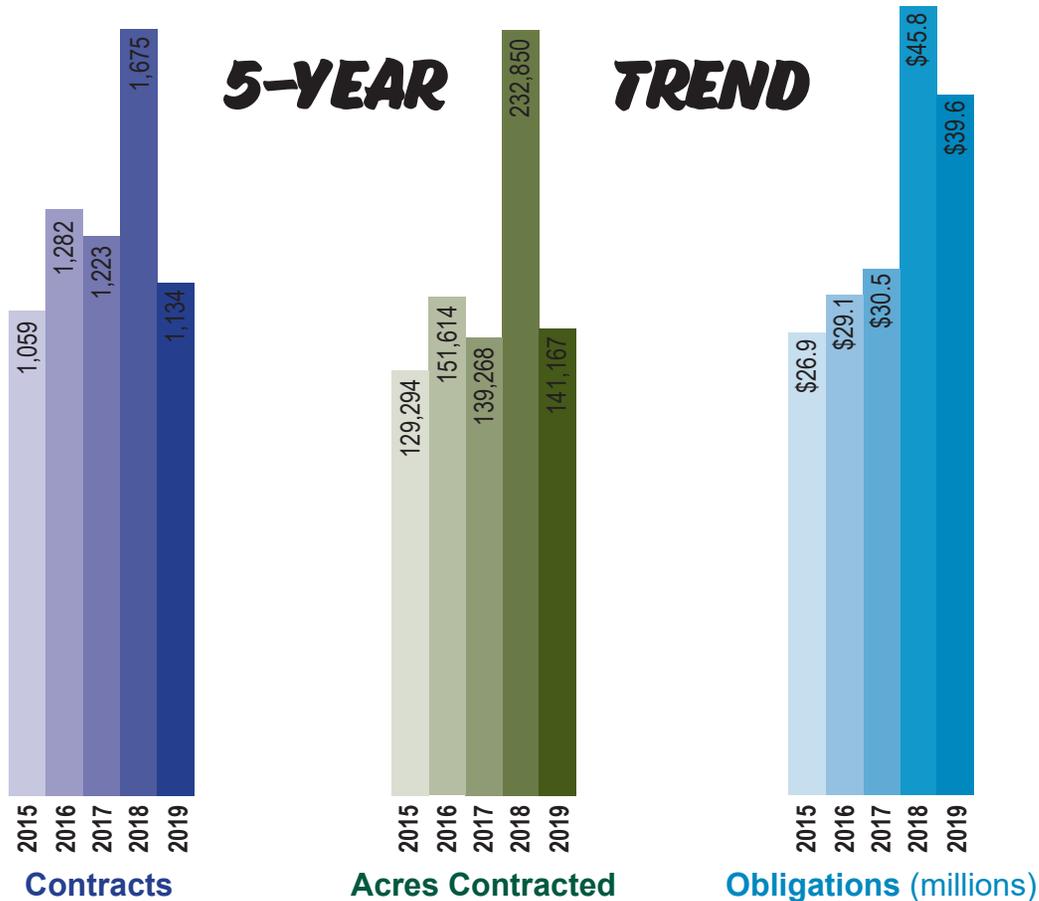
A handwritten signature in black ink that reads "J.R. Flores".



EQIP

Environmental Quality Incentives Program

The Environmental Quality Incentives Program (EQIP) provides financial and technical assistance to agricultural and forestry producers to address natural resource concerns and deliver environmental benefits such as improved water and air quality, conserved ground and surface water, reduced soil erosion and sedimentation, and improved or created wildlife habitat. Fund allocation is based upon Congressional mandates, land-use data and priority natural resources concerns within states. EQIP helps farmers and ranchers voluntarily address resource concerns on their land by implementing conservation practices based on the participant's objectives and goals for balancing production and environmental benefit. In FY19, EQIP remained one of Missouri NRCS' most popular programs.



**Comparing EQIP Obligations
Fiscal Year 2019**

| State | Obligation (millions) |
|--------------------|-----------------------|
| 1. Texas | \$105.7 |
| 2. California | \$94.5 |
| 3. Georgia | \$48.6 |
| 4. Arkansas | \$48.4 |
| 5. Mississippi | \$48.0 |
| 6. Colorado | \$47.1 |
| 7. Missouri | \$39.6 |
| 8. Wisconsin | \$38.2 |
| 9. Iowa | \$36.6 |
| 10. Tennessee | \$34.9 |



CSP

Conservation Stewardship Program

The Conservation Stewardship Program is the largest private lands conservation program in the Nation. It helps agricultural producers maintain and improve their existing conservation activities to enhance natural resources. CSP rewards farmers, ranchers and landowners based on their existing levels of conservation and their willingness to adopt additional conservation activities. In fiscal year 2019 NRCS administered two CSP opportunities. Missouri received an acre allocation for new contracts as well as an opportunity for existing participants to extend their expiring contracts for another year. In fiscal year 2019, Missouri obligated \$19.7 million through 430 contracts which covered nearly 149,000 acres. Missouri has about 1.95 million acres currently enrolled in CSP.

CSP by the Numbers

| 2019 New Land Use Acres | National Rank - Applications (FY19) | National Rank - Contracts (FY19) |
|--|-------------------------------------|----------------------------------|
| Cropland _____ 437,093 | 1. Mississippi _____ 1,880 | 1. Wisconsin _____ 545 |
| Pasture _____ 221,003 | 2. Arkansas _____ 802 | 2. MISSOURI _____ 430 |
| Non-Industrial Private Forest Land ____ 32,800 | 3. Minnesota _____ 720 | 3. Mississippi _____ 352 |
| Associated Ag Land _____ 36,838 | 4. MISSOURI _____ 707 | 4. Iowa _____ 338 |
| Farmstead _____ 8,149 | 5. Wisconsin _____ 610 | 5. Minnesota _____ 279 |

Missouri's Most Popular CSP Conservation Activities in 2019 (by Funding)



\$3.36 M

1,881 ac.

Establishing Monarch
Butterfly Habitat



\$566,682

21,342 ac.

Close Structures to
Capture/Retain Rainfall for
Waterfowl/Wading Birds



\$550,020

82,261 ac.

Reducing Ozone Precursors
Emissions Related to Pesticides
by Utilizing IPM PAS Techniques



EWP

Emergency Watershed Protection Program

The Emergency Watershed Protection Program helps conserve natural resources by relieving imminent hazards to life and property caused by floods, fires, windstorms, and other natural occurrences. Work must be sponsored by a state agency, a city, county or local government. NRCS provides 75 percent of the funds for an approved project, with the public organization providing the balance.

83 Missouri Counties Declared Federal Disaster Areas

Historic rain events and other factors throughout the spring and summer of 2019 led to record flooding in the Missouri and Mississippi River basins. The EWP was activated in 83 Missouri counties. A total of 143 public sponsors applied for EWP assistance. Most of the requests were for levee system and drainage system repairs. By the end of FY19, approximately \$33 million in damage repair costs were evaluated. Damage evaluation will continue throughout FY20.



Leveraging Partnerships to Enhance Technical Assistance

Partnerships enhance and leverage the work of NRCS in Missouri. No entity has enough resources to tackle the challenges faced by farmers, ranchers and forest land owners. NRCS partners in Missouri cross state lines, industries and agencies, as well as public and private sectors. Working together results in conservation that delivers for farmers and all U.S. residents.

Grassland Project Providing Assistance at the Grassroots

The University of Missouri Extension and NRCS are partnering to expand delivery of programs and services to more customers through the Grasslands Project. With a focus on Missouri grassland livestock producers, the project uses news articles, one-on-one technical assistance, field days, native warm season grass demonstration plots, and soil health sampling to educate producers.

The long-term goal of the project, for both agencies, is to improve grassland sustainability across Missouri. The Grasslands Project includes eight University of Missouri Field Specialists, partnering with local NRCS field staff, to assist in the application of conservation at the grassroots level. This relationship is a win-win-win for NRCS, Extension and Missouri livestock producers.



Partners Providing Technical Assistance



250
District Specialists



56
Private Land Conservationists and Biologists



45
Agriculture Conservation Experienced Services



32
Shared Technicians



9
MU Extension Grassland Support



15
Farm Bill Biologists & Communications



5
LU Cooperative Extension Specialists



2
Missouri Forage and Grassland Council



2
DU Wetland Conservation Technicians



1
Lincoln SWCD Plant Materials Center



1
Natural Resource Conservation Specialist



1
DNR Cultural Resource Specialist



2
Field Forester & Ozark Highland Restoration



2
Hmong America Partnership



NRCS, MDC Continue Partnership

NRCS and the Missouri Department of Conservation (MDC) signed a new five-year agreement in October 2019 to continue to provide support for a staff of biologists, private land conservationists, and wetland specialists to help deliver resource conservation planning and other assistance to Missouri landowners.

This partnership has been cultivated by our work together over the last 30 years. MDC Private Land Conservationists and Biologists located in USDA Service Centers around the state complement the expertise that NRCS conservationists have to offer customers. Together, NRCS and MDC improve and expand wildlife habitat across the state by working with land users to reduce soil erosion, and by improving soil health, water quality, water quantity, and grazing conditions. This cohesive partnership has led to both agencies partnering with other non-governmental organizations to bring more resources to Missouri.

NRCS and Partner Accomplishments

576,313

Acres in written conservation plans

799,178

Acres of conservation applied to improve environmental quality

718,293

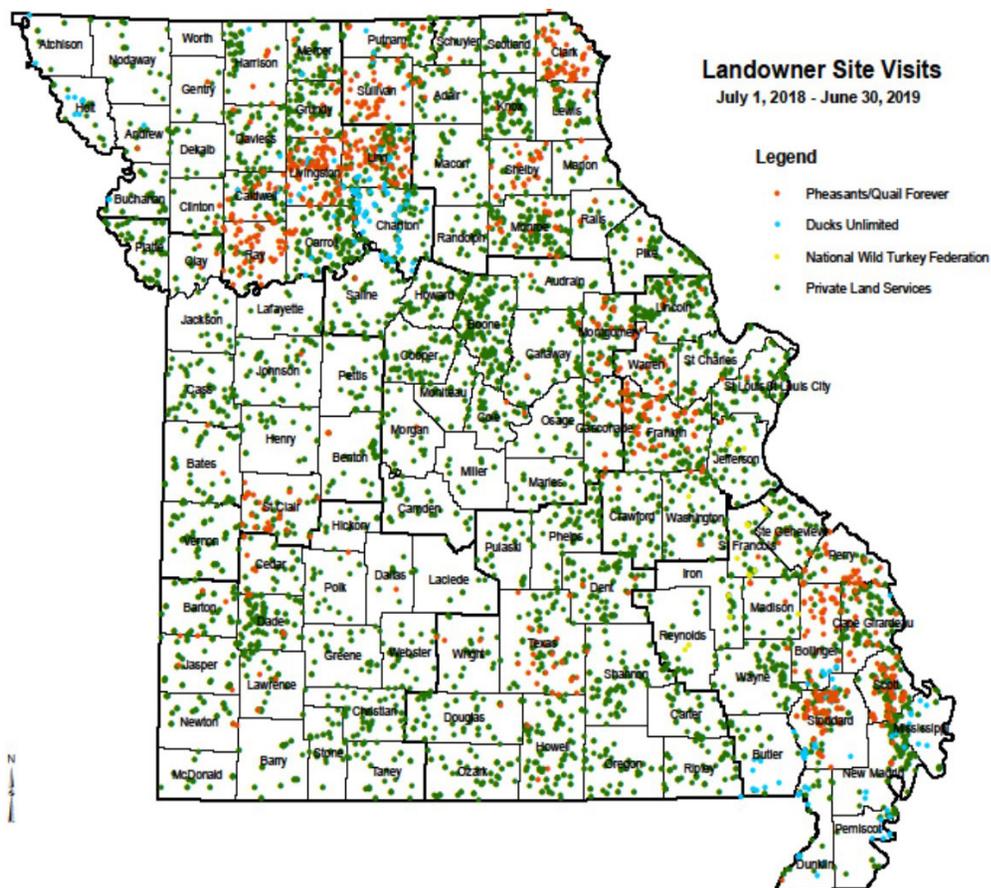
Acres with conservation applied to improve water quality

527,116

Acres with conservation applied to improve soil quality

153,377

Acres of grazing land applied to protect and improve the resource base





Providing Technical Assistance Helping People Help the Land

NRCS and its partners provide Conservation Technical Assistance to land users to identify resource concerns and opportunities related to the use of natural resources on their land. This assistance can lead to developing a conservation plan, which can serve as a springboard for farmers, ranchers and forest land owners who are interested in participating in USDA financial assistance and easement conservation programs. Conservation plans provide a road map for farmers, helping them meet their production and natural resource goals. Our unique ability to offer financial and technical assistance helps ensure that we can meet the diverse needs of our customers.

Producer workshops focusing on native warm season grass for forage are an example of partners collaborating on technical assistance. Missouri Department of Conservation in partnership with NRCS, Quail Forever, and U. S. Fish and Wildlife Service hosted two producer workshops in southern Missouri last year. The workshops focused on the establishment, management, and benefits of native warm season grass as forage in grazing systems. Held in Dade County and Bollinger County, about 40 producers attended each of the workshops. Additional workshops are planned for northern Missouri in 2020.

Soil Health Demos Effective During Workshops

With four soil health mobile demonstration trailers and the recent addition of four educational inflatable soil health tunnels, Missouri NRCS staff are successfully demonstrating the benefits of implementing soil health management systems.

The tunnels provide easy-to-see-and-understand details about Soil Function, Soil Properties and Soil Health Management.

In fiscal year 2019, approximately 9,200 people attended 118 soil health events throughout Missouri - doubling the number of workshops from FY18.

NRCS has worked with conservation leaders across the state to form a State Soil Health Council to further align the efforts of soil health across the state. The council includes conservation organizations, government agencies, university partners and commodity groups.



Mark Green Honored as Top Grasslander

Springfield Lead Resource Conservationist Mark Green was named Missouri Forage and Grassland Council Pastureland Conservationist of the Year in November 2019.

Green has spent much of his 37-year career promoting the innovative concepts of management intensive grazing. Local District Conservationist Diana Sheridan estimates Green has developed and implemented more than 700 resource conservation plans and livestock grazing systems throughout his career.

Green's grazing knowledge has led to a handful of NRCS publications, such as "Missouri Watering Systems for Serious Graziers" and "Missouri Electric Fencing for Serious Graziers."



For What It's Worth

11
grants provided to universities

\$747,000
funding NRCS grants provided to universities

University Partners



Missouri State University

Funds will be used to develop a soil health short course for agricultural students.



University of Missouri

Funding will support soil health education, outreach, and soil sample testing, development of climate data tools for agricultural producers, assist with evaluation of conservation practices to improve water quality, and develop tools to improve furrow irrigated rice systems.



Lincoln University

Funding will be used to support outreach to Historically Underserved agricultural producers and GIS-based technology for natural resource planning.



University of Tennessee

Funds will be used to deliver landowner workshops across Missouri demonstrating native warm season grass applications and effective livestock grazing applications.

Soil Technical Assistance



20,686
Missourians reached through efforts of soil scientists



1,650
requests for assistance



1,818
sites evaluated for National Resources Inventory (NRI) progress



390
land-disturbing projects checked to ensure that cultural resources sites were not altered



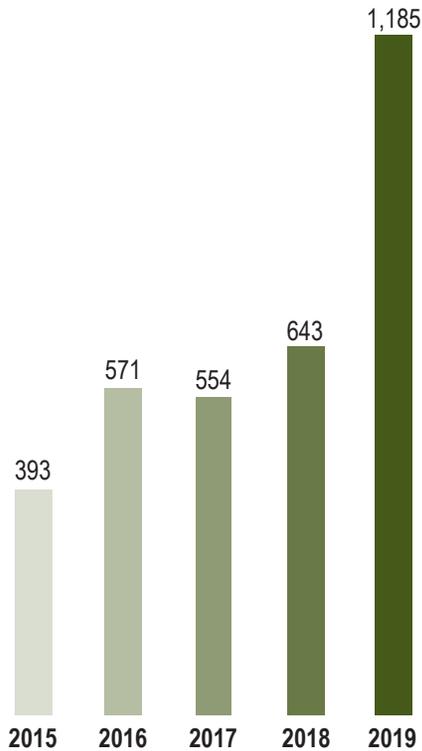
Outreach Efforts

Working with Historically Underserved

In recent years, NRCS has been effective in reaching populations of historically underserved producer groups in Missouri. However, there is always room for additional efforts to expand our reach.

Examples include the partnership that Missouri NRCS has with the Hmong American Partnership to increase technical assistance to Hmong agricultural producers who often have limited English speaking or reading proficiency. Soil health has been an area of interest among Hmong growers.

Missouri NRCS has increased partnership efforts in recent years to reach Historically Underserved agricultural producers and urban growers. EarthDance Organic Farm School is an organic apprentice farm school located in Ferguson, MO. Missouri NRCS has an ongoing cooperative agreement to support apprentice farm training for new and beginning producers and to increase awareness of locally produced food to urban residents.



Historically Underserved Landowners Assisted Through NRCS Programs in Missouri

St. Louis Science Center Supports Grow It! and Dig It! Exhibits

Missouri NRCS has a cooperative agreement with the St. Louis Science Center to support the Grow! and Dig It! Exhibits. The permanent space expands outreach to urban areas and is dedicated to soil science and educational programming targeting soils and food production.

The Science Center hosted the National Science Teachers Association conference in St. Louis in 2019 (photo at right). The teaching package delivered to educators included five soil science lesson plans and was created with USDA-NRCS grant funding. St. Louis Science Center educators, Ross Braun and Tony DiMeglio, collaborated with the Soil Science Society of America exhibit and teaching a formal class.





Watersheds

A Federal-Local Partnership

The Watershed and Flood Prevention Operations Program provides technical and financial assistance to project sponsors to develop and implement authorized watershed project plans. Under the “Watershed Program,” NRCS cooperates with the state, local agencies and units of government to carry out works of improvement for soil conservation; flood prevention; conservation; development; utilization and disposal of water; and conservation and proper utilization of land. The work is usually installed over multiple years. All works of improvement, including floodwater-retarding dams and reservoirs, are owned and operated by the sponsoring local organizations and participating individuals. Missouri watershed projects provide \$27 million of annual benefits.

East Locust Creek Reservoir Project

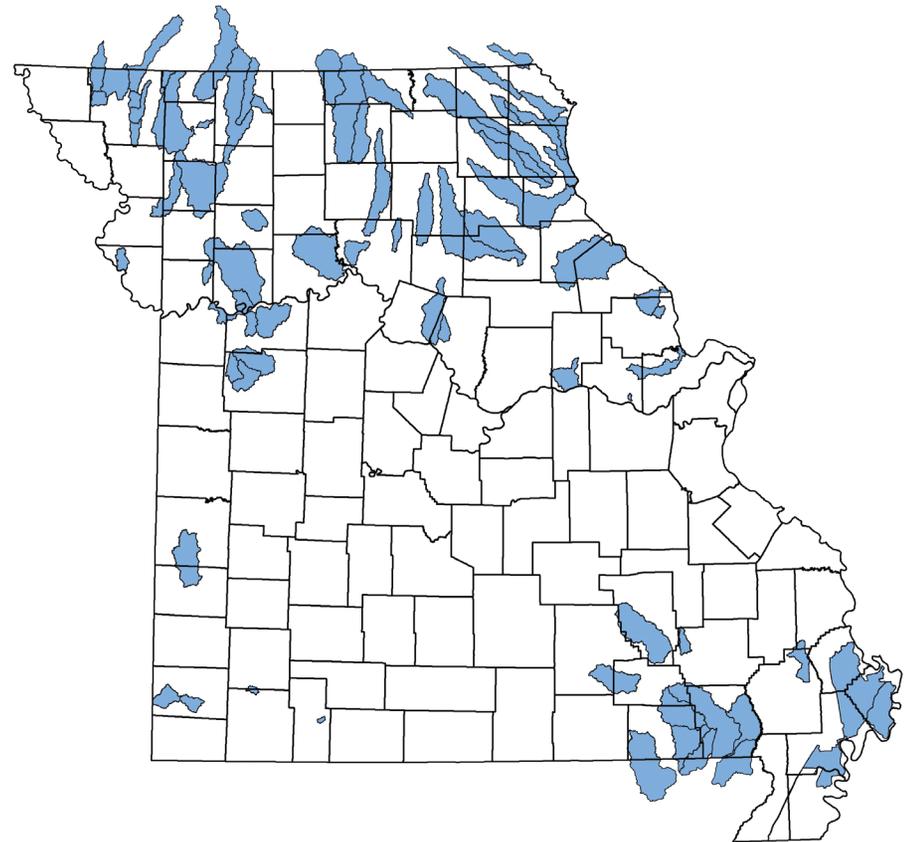
The North Central Missouri Regional Water Commission received \$25 million to complete land acquisition, permitting, design, existing structure demolition and dam construction for the East Locust Creek Watershed project. The 2,352-acre reservoir in Sullivan County will provide 7 million gallons of water per day for Adair, Chariton, Grundy, Linn, Livingston, Macon, Mercer, Putnam, Schuyler and Sullivan counties. The reservoir is the largest ever sponsored by NRCS. It is 6.5 miles long with 82 miles of shoreline.

Little Otter Creek Reservoir Project

The Caldwell County Commission received \$5.6 million for cost share on construction, recreation facilities, and technical assistance for the Little Otter Creek Watershed project. The 344-acre lake will provide a dependable water supply for about 10,000 people, as well as flood control and recreational opportunities.

NRCS released a final Supplemental Environmental Impact Statement for the watershed plan in November 2019. The document updates the original statement by providing more recent relevant environmental information and expanded alternatives.

NRCS Watersheds in Missouri





For more information about NRCS Missouri or to locate a field office near you, visit www.mo.nrcs.usda.gov.



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