

Mark Twain National Forest

2023 Reflections

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A message from the Forest Supervisor

The mission of the Forest Service, an agency of the U.S. Department of Agriculture, is to sustain the health, diversity, and productivity of the Nation's forests and grasslands to meet the needs of present and future generations. For more than 100 years, the Forest Service has brought people and communities together to answer the call of conservation.

The Mark Twain National Forest has been in service to the American people, and its neighbors in Missouri since 1939. Since this time, the lands of the forest have continued to deliver on one of the core values of the Forest Service, the value of conservation. Fiscal year 2023 was no different as our staff was charged with implementing an integrated program of terrestrial and aquatic restoration—developed and executed in collaboration with tribal, state, county, and other non-governmental partners and volunteers.

The stories shared here highlight the outcomes of our work to care for the land and serve the people. Convening partners who are working together, providing opportunities for service to the public, and creating resilient communities and natural resources are important to how the Mark Twain National Forest approaches our work; and these themes show in all that we accomplished. I want to express my gratitude to all the Forest Service employees, and to those working alongside us, as we deliver on our mission to meet the needs of present and future generations.

—Michael Crump



Mark Twain Veteran Crew at Cannon Range prescribed burn at Fort Leon and Wood, March 2023. USDA Forest Service photo.

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New Veteran Crew Increases Capabilities

This year, the Mark Twain National Forest began staffing an all-veteran firefighting crew. This is only the third crew in the country focusing on veterans, to be hosted on National Forest System units, and it is the culmination of many years of planning. The additional firefighters expand the capacity of the Forest to respond to wildfires and implement prescribed burns that are a part of forest restoration projects. Even though the new firefighting crew is based in Cassville, MO, their work confronting the wildfire crisis will find them working across the entire US.

At the end of fiscal year 2023, the crew was staffed with 11 firefighters, the long-term plans call for growing the crew size up to 20 fire fighters. As interest grows in the program and the crew becomes more active supporting wildfires, it won't be surprising to see it become more of a regional—and national—level resource over time.

Service members bring a variety of acquired skills from previous military careers to the public government sector. These skills align with the expertise needed to support an active natural resource and firefighting program on a National Forest unit. By hosting an all-veteran firefighting crew on the Mark Twain NFs, firefighting professionals with a long track record of success, will be able to provide training and experience to the new crew members. With Fort Leonard Wood nearby, the Veteran Crew will provide opportunities to service members who choose to continue their work in support of the American public, while staying local to Missouri.



Tribal partners work alongside Forest Service personnel to grid out an area for non-invasive detection. USDA Forest Service photo.

Record-setting treatments to prevent wildfire severity

In 2023, over 81,000 acres of National Forest land was treated to reduce the fuels that can drive wildfires under dry conditions—a record for the Forest! The ten-year average for fuels reduction work on the Mark Twain NF is 40,750 acres. Forest employees and firefighters used prescribed fire to accomplish over 60,000 acres while timber stand improvement activities such as thinning, regeneration, mid-story management contributed over 17,000 acres. Reaching this new benchmark was the result of planning and coordination between natural resource professionals over the last 2-3 years.

What made 2023 different than others? A relatively cool, wet spring resulted in sufficient “burn windows,” or days that the conditions are within the prescription necessary to achieve the desired fire effects. Advance preparation and coordination between resource professionals helped to maximize the options available for fuels treatments to occur. Employees trained and certified to conduct prescribed burning, along with firefighters from across the US, ensured the capacity to conduct multiple prescribed fires when the conditions were right. Investments over the past 3-4 years to manage forest health and restore forested habitats resulted in numerous projects being implemented to manage vegetation. There was also an increase in operations to salvage dead and down material from natural disturbances like windstorms; removing this material reduces the fuels that contribute to uncontained wildfire growth.

It is exciting to reach new milestones with the stewardship of natural resources in the Ozarks. Many of the contributing factors will continue to be in place for years to come, so if we are not hitting new records, we will be consistently above our 10-year average.

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Tribal Governments are essential to designating special areas

Central to the USDA Forest Service Heritage program is the collaboration with Tribal governments and ensuring the preservation of Tribal experience stories for future generations. The “Brickey Farmstead” site, a place where Cherokee people encamped along the Trail of Tears, is a focus for the Forest’s interpretation program and includes nominating the site for the National Register of Historic Places (NRHP).

Tribal governments that included the United Keetoowah Band of Cherokee Indians and the Cherokee Nation, partnered with the staff from the Mark Twain National Forest and Missouri Humanities Council (MHC) to conduct the research needed to assist with the nomination package. At each stage of the research, data and findings were shared and discussed with representatives from the Tribes, shaping the direction of the research.

The final phase, completed in July 2023, utilized non-invasive techniques, including ground penetrating radar and unmanned aerial vehicles to provide an understanding of the site and how it may have been used in the past. Throughout the project, ongoing conversations underscored the importance of Tribal involvement at every phase. In partnership with the Tribal governments, the Heritage program staff is planning to incorporate tribal perspectives as a foundation of the nomination package for NRHP listing.

The satisfaction and gratitude expressed by all those involved reflects the success of this collaborative effort in reaching a significant milestone.

Building a bridge to a healthier Huzzah

The Meramec River Basin is among the most biologically significant river systems in mid-continental North America, according to The Nature Conservancy. The Meramec River and its tributaries support 31 species of global significance; serve as popular destinations for fishing, boating, and swimming; provide economic benefits to local communities; and supply drinking water to over 340,000 households. Huzzah Creek is a notable tributary to the Meramec River with a large portion of its watershed falling within Mark Twain National Forest.



Stream bank stabilization along the Huzzah was part of the bridge replacement project. USDA Forest Service photo.

The Nature Conservancy, Missouri Department of Conservation, U.S. Fish and Wildlife Service, Ozark Land Trust and commissioners from Crawford and Dent counties have worked collaboratively for more than a decade to catalog opportunities to address Huzzah Creek watershed stressors.

A recently constructed bridge on Westover Road improved aquatic habitat by connecting 28.5 miles of Huzzah Creek and removing the barriers preventing fish and mussels from reaching rearing habitat. In 2023, a severely eroded bank was stabilized using an approach that addressed the entire stream reach rather than just the streambank. The restoration project will improve the quality of the riparian habitat and help protect the new bridge, a critical piece of infrastructure for the county. This project was made possible because of the participation of two private landowners, allowing the work to span a continuous reach of Huzzah Creek. The project was primarily funded by the U.S. Fish and Wildlife Service’s Columbia Fish and Wildlife Conservation Office. The Mark Twain National Forest was able to connect interested partners and resource managers to support long term conservation goals.

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Rapid Response to Tornado Damage

On the morning of April 5, 2023, a tornado struck the Poplar Bluff Ranger District in Carter and Wayne Counties, Missouri, leaving devastation that stretched over eight miles. The tornado damaged private property and left toppled and damaged trees across both private and public lands. The affected area was populated predominantly with shortleaf pine, but it also included interspersed hardwood species.

The storm impacted approximately 78 stands, covering nearly 1,500 acres, specifically within the Cane Ridge, Deer Track, and Blackwell Ridge project areas. To assess the damage, aerial reconnaissance was conducted over the tornado's path to gather information for planning salvage operations.

Resource specialists collaborated with the goal of salvaging the downed and damaged timber while the material still retained its value as a desirable wood product. This effort involved specialists including the zone TMA, foresters, archaeologist, wildlife biologist, recreation specialists, line officers, public officials, and representatives from the timber industry. The Ozark Trail was affected making the Ozark Trail Association an ideal partner to include in the planning.

The district staff awarded timber sales to salvage the downed trees and materials after a short 5 ½ months following the tornado. Because of an existing forest-wide, natural disturbance programmatic NEPA decision, the use of streamlined specialists reports, the staff's experience with other disturbance events, and a move toward incorporating weight scaled timber sale contracts; the normal 1-2-year time frame for salvage sales was greatly reduced. This accomplishment demonstrates the effectiveness that a highly-coordinated group of employees working together towards a shared objective can have when they are not afraid to be innovative in their approach.



The tornado that went through the Poplar Bluff Ranger District left many acres of trees lying on the ground. USDA Forest Service photo.

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Building a Strong Workforce with More Veteran Connections

The Mark Twain National Forest aims to boost recruitment among veterans and service members transitioning to a post-active-duty career. “Our mission is to serve the public and steward natural resources” says Michael Crump, Deputy Forest Supervisor, “It just makes sense to be an employer that welcomes service members and provide opportunities for soldiers to use their skills and experience while continuing their service.” Nearly 20% of the MTNF’s current workforce is represented by veterans.

The forest Administrative Staff group has developed a contact list from military installations nationwide and works with Transition Services Managers (TSM) who run the Department of the Army’s Transition Assistance Program (TAP). TSMs play a crucial role in sharing information and recruiting active soldiers into the program. The more TSMs know about the Mark Twain NF, and the Forest Service, the more likely that service members choose the Forest Service as their post-service employer. Participating in transition programs helps long-serving members prepare for civilian career prospects.

The Mark Twain NF participates in the Department of Defense (DoD) SkillBridge Program to support transitioning service members in gaining civilian work experience during their last 180 days of enlistment. This program requires employers to provide industry-specific training, apprenticeships, or internships. For the Mark Twain National Forest, the DoD SkillBridge represents an opportunity to tap into a highly trained and motivated workforce. Over the past year, the Mark Twain NF has hosted 15 participants through career transition programs, with each office hosting at least one service member participant.

Internship provides education to more than just the intern!

Prior to his retirement, Air Force Colonel Juan Alvarez participated in DOD Skillbridge program and was hosted on the Mark Twain National Forest in Rolla, MO working with the Public Services staff as a Civil Engineer. During this collaboration, he organized a field visit for civil engineers and program managers from the forest to learn about the operations of the US Air Force 368th training squadron at Fort Leonard Wood. The purpose was to expand relationships with neighboring federal partners and to learn about the techniques the military utilizes to develop novice Airmen into effective equipment operators and engineering assistants. Air Force Lt. Col. Benjamin Carlson, the training squadron commander, expressed interest in exploring collaborations with the Forest Service to expand training options.



Engineers from Mark Twain National Forest gathered to learn from Air Force training methods at Fort Leonard Wood. USDA Forest Service photo.

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Volunteers Contribute Significantly in 2023

Conservation of natural resources on public lands is a big job, and we could not do it without the help of individuals and organizations who share our values of conservation and service. Over 140 volunteers contributed more than 6,900 hours of service during fiscal year 2023, representing more than \$200,000 in value for additional conservation projects. A variety of partners supported natural resource projects through 44 unique agreements, collectively these partnering organizations contributed \$4.4 million in resource stewardship value to the Forest. We anticipate that fiscal year 2024 will be another successful year!



Monitoring progress of "17 mile" prescribed fire. USDA Forest Service photo.

- The Campground Host Program covered seven campgrounds, with 2,754 hours served (\$86,751 value).
- Youth Conservation Corps Program was held on the Eleven Point and Salem Districts which hosted seven YCC Student participants, serving 1,680 hours.
- Career Skills Program participants gave 983 hours of service.

Volunteerism breakdown by amount of recorded volunteer hours:

- 5000+ hours: Ozark Trail Association.
- 1000+ hours: Backcountry Horsemen of Missouri.
- 100+ hours: Poplar Bluff Trail Coalition.
- 50+ hours: COMO Trail Association, Cherokee Nation, United Keetoowah Band, and Missouri Humanities Council.
- Six individuals volunteered at least 250 hours in 2023.



Connecting partners of the outdoors through Missouri Outdoor Connections

This year, 175 organizations and groups in Missouri who share an interest in natural resources joined Missouri Outdoor Connections!

Mark Twain National Forest and Urban Connections St. Louis (part of Forest Service Eastern Region) reached out across the state asking people and organizations who steward their local environments, to join the network. Missouri Outdoor Connections is a Stewardship Mapping tool with a goal to identify the many organizations actively contributing to stewardship of Missouri's natural resources. The project will help bring these environmental stewardship groups together, to expand, strengthen and promote engagement, and find new connections to build more effective partnerships.

Participants in the Missouri Outdoor Connections will be able to expand their own networks with access to this updated list of stewardship aligned organizations and groups. Planning and developing new, on-the-ground projects in the future will greatly benefit from the collaborative nature of this network. Whether its people coming together to build trails, bring outdoor education to classrooms, or perform restoration activities like river cleanups and invasive species removal...the opportunities are endless!

Planning and Collaboration Staff Officer Chris Stockdale expressed "The Forest Service is tremendously thankful for the partner organizations that helped spread the word and recruit participation in this project."

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This is just one of the many new sites with electric hookups at Red Bluff. USDA Forest Service photo.

Red Bluff Campground reopens!

Following two years of construction, Red Bluff Recreation Area reopened on Sep. 1, 2023, with some major improvements. Campers will be greeted with three new camping loops, each with new restrooms, water, and electricity facilities. A new shower house, dump station, and a second pavilion will increase the convenience and enjoyment by visitors. Camping spurs vary in size and layout to accommodate recreational vehicles and trailers of all types. A fourth camping loop, the Pines Overlook, was renovated but remains a non-electric loop for visitors looking for a more traditional and basic experience. The renovations and new facilities have made the Red Bluff Recreation site more resilient, safer, and capable of meeting user's needs, now and long into the future. The improvements at Red Bluff Campground were made possible by the Great American Outdoors Act legislation.

Record-setting Storm Recovery

In May 2020, a two-day weather event brought heavy rains and high winds that toppled and damaged trees across portions of southern Missouri. The storm damaged trees posed a long-term forest health nuisance and created hazards for visitors. The debris and drying timber have the potential to become fuel for future wildfires or become a harbor for insects and disease. Removing storm-damaged trees can improve the safety for visitors and improve the forest conditions while providing benefits for the local economy.

The Poplar Bluff and Eleven Point Ranger District employees were supported by resource specialists from across the forest as they removed over 39 million board feet of salvage timber through 17 timber sale contracts, permits, and agreements to existing timber sale contracts.



This tree pie-up along Forest Road 4153 gives a glimpse into the massive damage caused by 2020 storms. USDA Forest Service photo.

District foresters and resource staff simultaneously prepared another 1,500 more acres for salvage treatments in coming years.

This extraordinary response included 105 commercial logging permits sold directly to permittees. This direct sale authority expedited removal of the material and had the added benefit of supporting individual operators and micro-businesses, the type of vendors that we hope to work with more. By increasing the utilization of damaged forest products, the Forest Service can help local communities rebound economically from natural disasters.

In 2023, the Poplar Bluff and Eleven Point Ranger Districts offered 46.2 million board feet of timber through 24 timber sale contracts. This was a mix of both salvage sales and planned forest improvement projects. This is the largest amount of timber volume offered for sale by any program on the Forest to date, and larger than the entire programs of 65 other National Forests.

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*This aerial view of storm damage demonstrates the challenge facing Forest Service staff and local logging operations.
USDA Forest Service photo.*

Completing Emergency Action Plans for Dams

The Mark Twain National Forest worked with the Bureau of Reclamation to complete Emergency Action Plans (EAPs) for the six high hazard dams located on the Forest. A “high hazard dam” is any dam where failure could cause loss of human life and significant property damage. The EAPs help Forest staff recognize a hazardous situation at the dam and know what course of action to take when a specific hazard is observed.



*Per FSM 7500, the EAPs are required to be updated every 5 years and a Tabletop Exercise is also required every five years.
USDA Forest Service photo.*

Forest program managers organized tabletop exercises with downstream partners after each EAP was prepared. These tabletop exercises allow the Forest and downstream partners to practice what to do if an emergency happens at the dam. Participants included federal, state, county agencies, and downstream partners such as MODOT, MSHP, MO-SEMA, county commissioners, and local emergency responders. Forest Service national and regional managers joined in with the local forest staff including the Facility Engineers, Law Enforcement, Safety Manager, Public Affairs Officer, MO-MOCC Dispatch Center and Recreation Specialists.

The six high hazard dams include: Council Bluff Dam, Crane Lake Dam, Fourche Dam, Huzzah #1, Loggers Lake, and Sterling Hollow.