

Mark Twain National Forest

2024 Reflections

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Meet Vince Keeler, Forest Supervisor

Working together with partners to accomplish forest restoration goals made 2024 a very successful year for Mark Twain National Forest. Along with the landscape changes across seasons, the arrival of a new forest supervisor was a big change that happened at the end of summer. Vinci “Vince” Keeler came to the Mark Twain from the White Mountain National Forest, where he served as the Deputy Forest Supervisor. His experience with the US Forest Service since he began his career in 2001 as a District Ranger, silviculturist, forester, and with non-governmental organizations will serve him well in this new role.



Forest Supervisor Vince Keeler.
USDA Forest Service photo.

Vince shared his enthusiasm for being here, saying, “Mark Twain National Forest has a long tradition of accomplishing restoration work across large landscapes, and I am excited to be able to play a role in guiding that work as we continue to care for the land into the future.”

Vince spent time this past fall visiting all areas of the Forest and connecting with many partners. He plans to continue to build these relationships to serve visitors, support communities around the Forest, and to keep the Forest’s many special ecosystems healthy. Employees applied prescribed burns to over 50,000 acres this past year, successfully navigated large storm recovery projects to bring damaged trees to market, and conducted community outreach and engagement events that connected our work with the public. Read on to find out more.

2024 Forest Reflections – Success through Collaboration

Community unites for successful trash cleanup initiatives across the region

Various cleanup efforts throughout the Forest have demonstrated impressive community involvement and dedication to preserving public lands and waterways.

On March 9, Heartland Trail Trash organized a cleanup with 60 volunteers in Ironton, led by Dustin Hinkle. Together, they removed nearly six tons of trash from Turkeyfoot Road and surrounding areas, with support from local businesses and law enforcement.

Redline Junk Removal provided dumpsters for waste disposal.

In Poplar Bluff, a debris removal contract helped clear 57 dump sites along 35 Forest Service Road corridors, while the Ranger District staff cleaned a 2-mile stretch of Hwy PP, successfully removing significant amounts of trash.

In Doniphan, staff from the 11 Point Ranger District collected 24 bags of trash along a 2-mile stretch of Route 160W in preparation for the solar eclipse event.

On August 8, 2024, volunteers from the Salem Ranger District participated in a river cleanup, removing over 140 pounds of trash from the Current River, while the ACW Ranger District partnered with local volunteers to clear the North Fork of the White River, collecting various items including tires and a broken chair.

These initiatives reflect a strong commitment to maintaining clean and safe environments for wildlife and visitors alike.



Forest Service personnel working to remove trash from the Poplar Bluff Ranger District. USDA Forest Service photo.



Forest Service personnel removing trash for the Doniphan Adopt-a-Highway litter cleanup. USDA Forest Service photo.

Addressing Timber Theft: Developing tools for accountability

In 2024, a multidisciplinary team of foresters, ecologists, geographic information specialists, a law enforcement officer, and a district ranger joined forces to standardize the process for assessing timber theft on Mark Twain National Forest. Recognizing the need for improved data collection, mapping, and reporting, the team developed tools to evaluate both the economic and ecological impacts of timber theft, including assigning monetary values to environmental damages. This process will be implemented Forest-wide in 2025, with plans to expand its use nationally in collaboration with the Northern Research Station and the Forest Service's national office.

Efforts to combat timber theft continue to yield significant results. This year, a federal investigation led to one individual receiving a sentence of two years and six months in prison, along with an order to pay \$30,000 in restitution and forfeit an additional \$30,000 representing the proceeds of the theft. These advancements highlight the Forest's commitment to protecting natural resources and holding offenders accountable.

2024 Forest Reflections – Success through Collaboration

NFF PARTNERSHIPS

National Forest Foundation's Partnerships on Every Forest assessment

The Forest was selected for the NFF Partnerships on Every Forest (PEF) assessment program in March. The program assesses strengths, challenges, opportunities, and needs experienced by Forest Service units and their partners in building and maintaining effective partnerships. The PEF team accomplishes this work through conducting partnership assessments with forests to better understand the needs and make recommendations that support the units' and partners' goals and objectives. Through a 12-month assessment process the Forest will receive direct feedback from our partners, and potentially those in our communities that we don't currently partner with. The Forest will incorporate that feedback into its partnership strategy. The PEF team will document and share learning nationally around partnership challenges, lessons, and opportunities identified.



Heritage staff sharing skills and equipment to analyze important community cemetery history. USDA Forest Service photo.

HistoriCorps: Collaborative improvement to preserve historical property

Mark Twain National Forest collaborated with HistoriCorps volunteers to preserve historic structures and enhance recreational access for the public.

In partnership with HistoriCorps volunteers and the Missouri State Historic Preservation Office, the Forest replaced deteriorating hardwood lintels at the Houston Ranger Station Administrative Site, a 1930s-era property built by the Civilian Conservation Corps and listed on the National Register of Historic Places. This preservation work, completed in spring 2024, will help ensure the longevity of these historic structures.

AmeriCorps: Improving Trail to Paddy Creek Wilderness Area

AmeriCorps crew members from St. Louis contributed to trail improvements in the Paddy Creek Wilderness Area. Over ten days, the six-person crew established a new one-mile trail connecting Slabtown Road to the Big Piney Trail system, providing safe and convenient public access to the trail's midpoint. This new segment reduces maintenance needs and improves user safety. By replacing a problematic mile of trail along the Big Piney River which was prone to flooding and rockslides. The crew also cleared downed trees and maintained trails at Lane Spring Recreation Area, enhancing the experience for forest visitors.

Collaborative projects like this reflect the Forest's commitment to preserving its heritage and improving public enjoyment of its recreational resources.



AmeriCorps crew members working to improve trail conditions in the Paddy Creek Wilderness Area. USDA Forest Service photo.

2024 Forest Reflections – Success through Collaboration

Community support for Watercress allows for faster flood recovery

Watercress Recreation Area was devastated by floodwaters when the Current River crested at its highest level in recorded history at 37.2' on May 1, 2017. This resulted in a lengthy closure of the site due to the extensive damage of the infrastructure. Over time the Forest was able to replace the pavilion, make repairs to the day-use area and campground and restore amenities such as electrical service and potable water. The 2017 flood damaged the flush-toilet restroom which remains a challenge to repair.

Local citizens that use and love the recreation site helped to bring the Forest Service and City of Van Buren together as partners to repair and maintain this riverfront recreation site. The City of Van Buren played an important role in the flood recovery effort at the site, helping ensure that both local citizens and tourist, who bring economic contributions to the area, could visit and enjoy all that Watercress has to offer. The Forest Service Eastern Region presented the City of Van Buren with an award in 2021 for their dedication and support for the Forest Service recreation program as a partner helping to steward this site.

This year, flooding struck once again in October 2024. While not as bad as the 2017 flood, clean-up and recovery had to begin anew. The river accesses, boat ramp, day-use and campground amenities throughout the site need to be cleared and inspected for structural damage. Thanks in large part to the existing agreements, a cleanup plan with the Forest Service, City of Van Buren, Mingo Job Corp Center, and other partners was quickly developed. Everyone is working together and putting time and equipment toward the effort. As the recovery work from the 2024 flood progresses, the Forest and the City of Van Buren hope to incorporate needed work for restoring the flush toilet restrooms in the future. Working together makes recovery much quicker and lends resilience to the Forest's recreation program, resulting in a partnership that provides the best services to the area's users.



*Heavy equipment and personnel from the City of Van Buren, Forest Service, and other partners came together to clean up debris deposited in Watercress from November floodwaters.
USDA Forest Service photo by Matt Dillon.*

2024 Forest Reflections – Success through Collaboration

Funding will restore sensitive glade ecosystems

The Forest joined other partners in successfully applying for funding for the Glade and Woodland Restoration in the Ozark Highlands and Lower Boston Mountains of Arkansas and Missouri Project. Funding from this America the Beautiful grant was awarded to make this project a reality over the next three years. This collaboration will restore and maintain 4,000 acres of glades and open woodlands through invasive species removal, vegetation management, and prescribed fire across three focal areas in Arkansas and Missouri, including the Cassville Unit of the Ava-Cassville-Willow Springs Ranger District. The project will enhance habitat for more than 100 at-risk fish, wildlife, and plant species, reduce wildfire risk, promote ecotourism, and generate economic benefits for rural communities.

In total, the project will restore or improve 15% of all available glade habitat in the three focal areas. Aside from the USDA Forest Service, partners in the project also include Arkansas Game and Fish Commission (AGFC), The Nature Conservancy (TNC), Missouri Department of Conservation (MDC), Pheasants Forever and Quail Forever (PF/QF), American Bird Conservancy/ Central Hardwoods Joint Venture (ABC/ CHJV), Arkansas Natural Heritage Commission (ANHC), the Farm Bureau, and local landowners.



*McClurg is an easy to access stop along the Glade Top Trail and is representative of this unique ecosystem.
USDA Forest Service photo by Cynthia Frish.*

NAGPRA – Compliance through a relationship-focused program

In 2024, the Forest formally adopted a NAGPRA/ Inadvertent Discovery Plan for the entire Forest. NAGPRA, an acronym for the Native American Graves and Repatriation Act, ensures that culturally sensitive artifacts and human remains related to Tribes are cared for with the appropriate reverence. To do so, the Forest Heritage staff works closely with Tribal partners to ensure the process is accomplished with the Tribes' input each step of the way and full respect is given.

When conducting land management activities, these type of artifacts can accidentally be discovered, and it is important to have a plan in place ahead of time to ensure that respectful care starts at the moment of discovery.

Ensuring proper housing of NAGPRA related items in curation facilities has been a priority for the Forest.

The new NAGPRA/ Inadvertent Discovery Plan was drafted by the Osage Nation and was consulted on and agreed to by all other consulting Tribes. Forest Heritage staff keep the important relationships with Tribes in the forefront of considerations when proposing and implementing land stewardship projects. This past year, the Osage Nation completed its review of all Forest Service collections for additional NAGPRA items, as defined by the Tribe in an Agreement. A report detailing the results of that inventory is near completion, and will then be submitted to the Forest, who will forward it to National NAGPRA.

This will pave the way for completion of the final steps in the Forest's NAGPRA obligations. This includes repatriating all items covered under NAGPRA from Forest custody into the custody of the Tribe, and then assisting the Tribe in identifying a place on the Forest where these items can be safely and respectfully reinterred.

2024 Forest Reflections – Operation and Infrastructure



Using firing operations to stop the spread of the Sugar Fire and keep it in containment boundaries. USDA Forest Service photo by Justin Adams.

Wildland Fire in 2024

This past year started out fairly normal for Missouri, with a good prescribed burn window in the spring. In the early summer, Forest firefighters shifted to providing national wildland fire response support. Oregon in particular needed a lot of resource support late into the season.

Back at home, drought conditions crept up in late summer and early fall, and many wildfires were breaking out across the Forest. The Sugar Fire was the largest and ended up requiring a multi-day response to put out the 1,611 acre fire. Luckily the drought ended with precipitation events across the Forest; but that led to some flooding issues at recreation sites, to which the fire personnel also provided cleanup assistance to the many affected recreation areas.

Another milestone was that the Mark Twain Veteran Crew completed its second year on the Forest. It continued to have success in recruiting veterans from across Missouri and other areas, training up incoming personnel, and being an effective firefighting and prescribed burning resource here and on assignments off Forest. Personnel from the crew also led military units in wildland fire support in other states this past summer.

In 2024, the Forest:

- Responded to 163 wildfires for 11,577 acres.
- Conducted 53 prescribed burn operations, totaling 51,607 acres.
- Burned 2,313 acres in partnership with Fort Leonard Wood.
- Treated 70,860 acres to reduce wildland fire threats.
- Filled 942 resource orders, providing personnel in support of wildfires outside of the Mark Twain, mostly in the Western United State. This included six crews: four 20-person crews dispatched from Rolla and two camp crews (of 12 students) dispatched from Mingo Job Corps in Puxico for large-wildfire camp support.



CXT facility installation. USDA Forest Service photo.

Improving restrooms, boat launches, dams, and more

As part of a regional effort funded by the Great American Outdoors Act (GAOA), the Mark Twain National Forest replaced outdated wooden outhouses with durable concrete structures at several recreation sites, including Caney Picnic Area and Roby Lake Trailhead. These new concrete toilet buildings are designed to last at least 30 years with minimal maintenance, reducing long-term upkeep costs and improving visitor experience. Additional replacements were completed at Berryman, Loggers Lake, Marble Creek, and McCormack, ensuring These modern facilities will enhance the beauty and functionality of these recreation areas.

Aside from the restroom installations, Forest engineers were very busy in 2024. Other GAOA projects completed this year include the East Gate boat launch replacement near Fort Leonard Wood and the Riverton West retaining wall installation. Working with employees from Salem Ranger District, engineers were able to conduct repairs to the Loggers Lake dam, correcting undercutting erosion issues. Sterling Hollow dam is in the process of being decommissioned and expected to be completed in early 2025. Across the Forest, emergency action plans for all dams were updated as well.

2024 Forest Reflections – Operation and Infrastructure

Importance of Dispatch recognized in research project

This interdisciplinary project, supported by graduate and undergraduate students, involves faculty from Missouri University of Science and Technology (Drs. M. Thimgan, R. Verble, V. Samaranayake, and S. Hercula) and Dr. J. Rhoades from the University of North Dakota. The goal is to develop automated methods to predict or detect cognitive declines in communication and decision-making roles. Finding ways to detect when dispatchers lose alertness should increase overall wildfire operational safety.

The study analyzes data from volunteer wildland fire dispatchers at the Missouri-Iowa Interagency Coordination Center (MOCC) at the Forest's office in Rolla. The study included movement tracking, questionnaires, and cognitive performance evaluations, collected during three workload periods over a year. Participants provided information on sleep disorders, any sleeping medications, and other sleep-related information.

Preliminary results clearly show how sleepiness can cause judgment errors and reduced cognitive function, which impacts operational performance. Researchers are working to develop a rapid sleepiness test, aimed at enhancing safety and performance in high-stakes environments.

Red Bluff Ribbon Cutting Ceremony

A ribbon-cutting ceremony for the new and improved Red Bluff Campground on Mark Twain National Forest, took place this past June. This grand opening celebration highlighted the new and modernized camping facilities, that are now open and ready for visitors to enjoy.



Red Bluff Campground ribbon-cutting. USDA Forest Service photo.

Vet Crew assists Fort Leonard Wood prescribed burning

For the second year, wildland firefighters from Mark Twain National Forest, including 15 members of the all-veteran Mark Twain Veterans Crew, supported Fort Leonard Wood (FLW) with prescribed burns in the Cannon Range area. This year's focus was the eastern portion of the heavily wooded range, where controlled burns help reduce fuel loads, clear underbrush, and lower wildfire risks during military training exercises.

The operation, covering 2,313 acres, involved Forest Service engines, fire management staff, and helicopter support for aerial ignition. Regular prescribed burns are planned every few years to promote forest health, with certain sections treated annually to ensure uninterrupted training by removing the fuels and limiting wildfire growth should one break out on the training range. The Veterans Crew was proud to apply their Forest Service skills to enhance safety for active military training operations. Additional prescribed burns at FLW are planned for the coming year. The crew enjoyed using their Forest Service skillset to make this military training site more resistant to wildfire starts.

Rec Fee Implementation

In compliance with policy and with the ever-changing economy, Mark Twain National Forest implemented changes to the recreation user fees at some of the recreation sites this past year. The changes ensured fees at developed campgrounds, day use sites, pavilions, cabins, and motorized trails were appropriate to meet the costs of maintaining the sites and to align with costs at comparable sites. Changes were made so the Forest can continue to deliver its diverse span of recreation opportunities for years to come.

The list of changes came after completing an internal analysis and review and gathering public feedback. The Eleven Point Resource Advisory Committee (RAC) met in 2023 to support the proposed fee changes, support from a RAC was a critical step in the process. The RAC members represent a broad array of interest groups to ensure that the Forest Service is proposing reasonable and publicly acceptable fee changes. The Regional Forester reviewed and approved the final fee changes that are now being implemented.

2024 Forest Reflections – Operation and Infrastructure

Working together to improve public access to a fantastic view

The Potosi/Fredericktown Ranger District used stewardship contracting to improve public access to the spectacular view from Crane Tower lookout. The Forest Service completed a major road reconstruction project on Crane Tower Road in July 2024. The 0.8-mile-long Crane Tower Road (Forest Road 2192,) located in Iron County, provides the only vehicle access to the top of Crane Mountain. Timber sales in the area also helped to restore forest vegetation and contributed resources to the repairs to this important access road. These improvements will reduce erosion and will make using the road much more enjoyable for visitors.

Before these repairs, the condition of the Crane Tower Road had deteriorated to the point that few vehicles could traverse it. The roadbed was severely eroded in places and the soil was eroding into ravines. The project reconditioned the roadbed, ditch lines and outlets; and replaced 110 feet of 18-inch diameter metal culvert pipe. Fresh aggregate was also placed on the road surface to make it more compatible to passenger vehicles and durable to rainfall events. Visitors can now drive up the mountain, park at the top, and walk-in to the rocky glade area where the beautiful overlook can be found. The cost of the project was \$34,500, which was made possible by the retained receipts collected through ‘stewardship timber sales’.



*Rocky glades and expansive lines of trees going into the distance as seen from the Crane Tower lookout.
USDA Forest Service photo by Becky Ewing.*

Veteran Crew

Mark Twain National Forest takes pride in its professional wildland firefighting program. There is a long history of staffing engines and dozers at each Ranger District, prescribed fire personnel working to plan fire use for restoration purposes, other non-fire employees staying qualified to help in wildfire response (known as the fire militia). Many, if not most, of these individuals go to other states each summer to assist with wildfire responses as well. A few years ago, the Forest added dedicated Initial Attack dozer operators to operate the 10 bulldozers already on the Forest to have an additional force able to quickly build fire breaks when needed. A big change that happened in 2023 in the program was the initialization of a Mark Twain Veteran Crew. The crew hit the ground running showing that it was a highly capable addition to the Forest’s ability to protect people, property, and resources from wildfires. In 2024, the crew continued to build on some of the achievements from last year by:

- Staffing the crew to the planned size – 23 veterans were hired to serve as part of the team.
- Nine of these were first-time firefighters, bringing skilled people into this important profession.
- Three veterans serving in temporary roles were hired into permanent positions.
- Crewmembers gained qualifications in important roles in firefighting, prescribed burning operations and incident command.
- The crew logged 104 shifts in wildfire response, responding to 44 wildfires this past year.
- 84 shifts were off-Forest fire assignments.
- They supported 31 prescribed burn operations, helping with restoration work on over 21,000 acres of land.



*Mark Twain Veteran Crew standing with Sam Bowen in center, after Sam was honored with national recognition for leadership in wildland firefighting (at Council Bluff).
USDA Forest Service photo by Cody Norris.*

2024 Forest Reflections – Stewardship of Natural Resources

Updating a very important plan for a very special river

The Eleven Point Scenic River Comprehensive River Management Plan (CRMP) has received some simple, yet very significant updates. The Eleven Point River had the honor to be among the first group of rivers in the nation to be designated when the Wild and Scenic Rivers (WSR).

Act was initially passed in 1968. A CRMP was prepared in 1973 and was updated in 1975. This new update was signed into effect by the acting Forest Supervisor early in the year. This 2024 CRMP update sets monitoring criteria for negative impacts to “ORVs”. ORV stands for Outstandingly Remarkable Value, and the ORVs are a key part of managing Wild and Scenic Rivers.

A new method for measuring ecosystem improvements

Floristic Quality Analysis (FQA) has been a thorough way to evaluate forest health for many years, including Pineknott and Cane Ridge. Restoration requires an understanding of how the vegetation responds to the land management activities that are prescribed. Ecologists from the Forest worked with research scientists and ecologist from across the Eastern Region to develop new analysis methods that can be applied to the large landscapes. Permanent vegetation monitoring plots were established through a partnership with The Nature Conservancy and NatureCITE. FQA data was then utilized to test out another, more rapid monitoring tool—the new Community Health Index (CHI) evaluation process.

Strong correlations between CHI and FQA results were found, which means that CHI is another tool that will be used to monitor areas in the future, as it can cover more ground quickly. CHI will not replace FQA but will be a good supplementary tool. Formal adoption of CHI as a standard method of natural community monitoring will be pursued Forest wide in 2025.

Responding to 2024 storm damage

On May 26, 2024, a series of severe storms impacted southern Missouri, causing damage to homes, businesses, and forest resources in and around the Mark Twain National Forest. A confirmed tornado touched down near Birch Tree, MO, causing damage to private property and Forest Service managed forests. Employees conducted initial damage assessments and identified several hundred acres of timber that were impacted. Forestry professionals from the Eleven Point Ranger District developed silvicultural recommendations for salvaging the damaged timber and promoting a health forest in the future.

Using tools that the Mark Twain has in-place for responding to natural disturbances, the Forest was able to respond to the impacts of this storm in record time. Forest staff prioritized impacts to neighboring private lands by marking affected trees and issuing permits to the landowner. This allowed the landowner to hire a logging company to simultaneously remove the damaged trees on their property while also salvaging the downed trees on the Forest Service land. This demonstrates that public and private needs can be met in a quick and efficient manner, helping to make the best of an unfortunate situation.

Forest Service personnel also utilized unmanned aerial systems (UAS), or drones, to improve their assessment capabilities, this new tool also shortened the time it took to complete resource assessments, and improved employee safety and operational efficiency. Responding to forest damage allows the Forest Service to remove material that would contribute to hazardous wildfire fuels and support of the local economy by utilizing the natural resources while it they can still be harvested for productive uses.

2024 Forest Reflections – Stewardship of Natural Resources

Aquatic Organism Passage

The Mark Twain National Forest and The Nature Conservancy entered into an agreement to assess aquatic organism passage (AOP) barriers across the forest and identify barriers that disrupted the connectivity of aquatic habitat. An AOP barrier is any type of facility, device, or infrastructure that prevents the natural ability of fish, insects, or wildlife to use the streams and rivers to feed, migrate, or breed. One of the most common barriers to aquatic organism passage here in the Ozarks are fords and low-water crossings. Many communities rely on these types of road crossings to commute to work, school, and have access to emergency services. As streams meander and migrate, the conditions around the infrastructure constantly change, prompting the need to maintain an up-to-date database of stream crossings and to reassess changing conditions.

This collaboration will provide a list of the AOPs that are in the most need of replacement so that resource managers will know where they can best make improvement that are cost effectively. With the right resources, these crossings can be replaced with infrastructure that will both support aquatic organism passage and provide the users with a safer more resilient transportation network. By reducing the number of aquatic barriers, the habitat in the rivers and streams will be more beneficial to the fish and amphibians, giving the anglers out there something to look forward too.



The new structure includes large openings that will allow aquatic wildlife to move up and down stream with ease. USDA Forest Service photo by Jim Studdard.

2024 Forest Reflections – Stewardship of Natural Resources

Building relationships and finding innovative ways to continue forest restoration

Connecting with community businesses played an important role in the Forest's successful timber program in 2024. The Forest Service staff from the Salem and Potosi/Fredericktown Ranger Districts held a meeting with current and potential timber sale purchasers with the goal to improve customer service.

Conducting timber sales is a vital part of many of the Forest's restoration projects, and the timber staff put some extra effort into making connections with the local individuals in this industry. This meeting allowed everyone to meet in a face-to-face setting, learn about the needs and processes involved on both sides of a timber sale, and to answer questions posed by potential future purchasers. Held at Johnson Shut Ins State Park, the meeting was well attended and included representatives from the Missouri Forest Products Association.

Building relationships with partners, contractors, and local communities makes working together to bring resilience to national forest landscapes economically feasible. In fiscal year 2024, the Forest awarded 77.5 million board feet of timber through sales in support of restoration activities. A sizable portion of this volume was the result of salvaging timber that was damaged by a storm in May of 2020 that impacted 26,000 acres of Forest land.

Also in 2024, weight scaled sales continued to be an important tool for restoration activities, and this method of selling forest products is currently being utilized for recent storm-related salvage sales. Weight scaled sales allow the Forest to expedite offering sales with salvage material before the wood deteriorates.

The Forest continued to implement the Missouri Pine-Oak Woodland Collaborative Forest Landscape project, with the goal of restoring shortleaf pine and pine-oak habitat on the Eleven Point and Poplar Bluff Ranger Districts. The project includes treatment of forest stands impacted by red oak decline, recruiting and planting new trees, and removing invasive plant infestations (such as Spotted Knapweed and *Sericea Lespedeza*), and utilizing prescribed fire to mimic the disturbances that contribute to a healthy forest in Missouri.

In addition to making connections with partners, the Mark Twain National Forest also improved internal processes to meet its multiple missions. The timber and engineering staff spent time the last two years collaborating to increase efficiencies, this work resulted in developing a set of practices for incorporating the planning, developing, and maintenance of forest road alongside the vegetation management work. Working with others, increasing communication, and taking practical steps in our activities, helps to ensure that Forest Service lands remain healthy and productive.

2024 Forest Reflections – Customer Engagement

Evening with nature helps Monarch habitat

The Evening with Nature event was held at the middle school auditorium in Rolla in April of 2024. More than 400 people attended the event, all having a great time! The Forest Service enjoyed the opportunity to interact with so many people and hand out hundreds of milkweed root stock for people to take home to create excellent habitat for butterflies and other pollinator species. The pinecone collection was also a hit. Thank you to the Missouri Dept. of Conservation nursery at Licking, MO, for providing the milkweed root stock for this event.



Forest Service employees at the Evening with Nature event. USDA Forest Service photo.

2024 Youth Fishing Derby Accomplishments

On June 15, 2024, the Potosi Ranger District hosted the return of the Youth Fishing Derby. The derby took place at Bilderback Lake in Potosi City Park. The City of Potosi provided logistic support for the event, and personnel to help the kids learn about nature and conservation while having some fishing fun. Forest employees also donated chips, drinks, charcoal, fishing poles, and other small miscellaneous items to help support the derby. Around 30 kids had a great time at the event.



USDA Forest Service photo.

Smokey's 80th Birthday

Iconic, historic paintings come to Salem in celebration of Smokey Bear's 80th birthday.

Nineteen art reproductions of paintings by Rudolph (Rudy) Wendelin, courtesy of the Forest Service, were displayed over the summer at the Ozark Natural and Cultural Resource Center (the Center) in Salem. The Wendelin exhibit will showcase the historic artist's iconic Smokey Bear campaign imagery that he created during his decades of service to the U.S. Forest Service, starting in the 1930s.



A surprised Smokey holds his signed birthday card, commemorating his 80th birthday celebration. USDA Forest Service photo.

Monarch Tagging

On October 5, the Potosi Wildlife shop held a Monarch tagging event for the community where participants had the opportunity to learn about Monarchs, their habitat, life cycle, and migration. Forest staff and volunteers were able to tag four Monarchs before releasing them to travel on the remainder of their journey to Mexico. Thank you to the families that took time out of their schedules to participate in the event and learn about Monarch conservation.



The tagging of a Monarch. USDA Forest Service photo.

2024 Forest Reflections – Customer Engagement



The Great Eclipse

Teamwork, planning, and partnerships made the 2024 Great American Total Eclipse a huge success on Mark Twain National Forest! It was a busy three- day period leading up to the cosmic event, with thousands of extra visitors from all over the country, and even the world, using the Forest as their preferred location to view the eclipse. Despite the number of visitors, the Forest was able to resume normal operations immediately following the eclipse.

Eclipse viewers were respectful, packed out their trash, and utilized all the additional facilities the Forest provided for the weekend. The Forest’s overarching plans to work with surrounding communities to promote local events and to provide the public with a place to see the eclipse, away from crowds and in a natural setting, both worked very well. Plus, having the Smokey Bear balloon come to Missouri for the event brought even more cheer to this already wondrous occurrence.



Sun’s Corona during eclipse totality over Eleven Point River. USDA Forest Service photo by Emily Ficker.

Air Stream Rally

When more than 1,000 Airstream recreational vehicles converged on the State Fairgrounds in Sedalia, Missouri for the annual Airstream Club International Rally, staff from the Mark Twain National Forest were there to greet these visitors to our state and highlight the many outdoor recreational opportunities available on national forest land. The international rally held October 5th – 10th, brought Airstream owners from across the United States and Canada together for a week of fellowship, friendship, and fundraising.

As part of the week’s events, Forest staff delivered the presentation “Opportunities Abound on the Mark Twain National Forest” to approximately 80 club members interested in exploring outdoor recreation at our Forest locations. Additionally, the charitable arm of the organization – the Wally Byam Caravan Club International (WBCCI) – presented the Mark Twain National Forest with a Global Impact Grant for improvements to campgrounds and other developed recreation areas on the Forest. The funds received went directly to an established partner, AmeriCorps St. Louis, who will assist the Forest in completing this work.



Participants lined up for the Airstream Club International Rally. USDA Forest Service photo.

2024 Forest Reflections – Customer Engagement

Potosi Living Classroom

The Living Classroom in Potosi is a unique resource for promoting conservation education in the community. Recently, Forest Service personnel launched a mission with our national partners- Agents of Discovery (AoD) that contains a virtual walkthrough with various challenges, or games, that the participants can take part in. Forest Service fire personnel implemented a prescribed burn on the two-acre plot this year and look forward to seeing the ecological benefits of this in the years to come. Wildlife staff at the Potosi office also utilized this space to attract monarch butterflies for the tagging program.

Partners have also been involved with the Living Classroom. Future programs with the Missouri Environmental Education Association are being planned. Students from Bellview High School visited the site this past year to learn about how it was established—something that could be done on any small plot of a land. Urban Connections in Region 9 was instrumental in provided funding for the development of the project.



*Wild flowers grow along a path of the Living Classroom in Potosi.
USDA Forest Service photo by J.C. Boothe.*

Remember the Removal

In the summer of 1838, many thousands of Cherokee were forced from their homes in Georgia, Tennessee and other southeastern states and relocated to the tribe's current capital in Tahlequah, Oklahoma, as a result of the Indian Removal Act. The routes that were traveled became known as the Trail of Tears, and they hold a revered place in the history of Native American tribes who were subjected to the removal. Remember the Removal bike riders travel annually on the Northern Route of the Trail of Tears, in honor of their ancestors who were relocated. They start in Georgia and and cycle across seven states before ending their 950- mile journey in Tahlequah. For several years, the Riders have included stops at Mark Twain National Forest as they travel through Missouri. The Forest was honored to host them for a meal-break in Potosi and in Rolla again this year. Spending time with the riders is inspirational for Forest Service personnel and a reminder of the importance of the Tribal connections to this land that is now managed as part of the national forest system.



*Riders stopped by the Rolla office, and were greeted by Mark Twain National Forest employees, food, and refreshments.
USDA Forest Service photo.*

2024 Forest Reflections – High Performing Workforce

A New Perspective on Forest Management

Drones continue to change how work can be accomplished. In 2024, two employees on the underwent USDA Forest Service training and certification to be drone pilots. Simultaneously, the Forest was able to acquire two drones – a Vision Aerial Switchblade Elite and a Parrot Anafi. Having the additional capabilities that drones can bring to the Forest is already proving useful and promises to yield even more utility in the future. These drones and pilots will be focused on natural resource management programs and projects. These drones could help to quickly identify invasive plant species spread in an area. They can be utilized to evaluate the extent of blowdown damage after a storm, without needing to have employees walk through the forest and around hazard trees. They may also be utilized to help identify larger swaths of timber stand composition to assist with on-the-ground timber cruising efforts. With lenses that allow for high magnification, infrared detection, and thermal detection, there is no shortage of ways they can be used to help effectively assist in Forest management activities.



USDA Forest Service photo.

Employee Development

Early in 2024, Mark Twain National Forest employees attended the Leadership in a Natural Resource Context (LNRC) training in Rolla Missouri. This 5-day workshop provided an in-depth introduction to leadership for both new and seasoned employees. The program incorporated a self-assessment that enabled team members to better understand their communication styles. This tool helped employees recognize individual strengths and how they can bring those strengths to problem-solving and decision making. By integrating the assessment insights with leadership principles, the training prepared employees to enhance teamwork, and strengthen overall performance in addressing forest management challenges.

2024 Forest Reflections – Economic Benefits

Caring for the land provides a big economic boost

The importance of the Forest to the outdoor recreation economy in Missouri often gets highlighted. The 1.5 million acres of Mark Twain National Forest allows for many small businesses tied to camping, hunting, fishing, hiking, trail-riding, and other ways people go out to enjoy nature to be successful. Not so well known is that cattle grazing on grasslands and timber management activities across the Forest also provide benefits to local economies.

The Mark Twain National Forest has the largest range program in the Forest Service Eastern Region. The Range Program utilizes animal grazing as one of the tools to manage open lands, with 61 active grazing allotments, 25 hay permits, and 120 permittees utilizing over 8,000 acres. The average operating budget for the program is \$18,000. In Fiscal year (FY) 2024, annual grazing fees generated \$118,000. A lot of work gets done on the Forest through the grazing fee credit system, or cooperative fee credits, with the permittees. In FY '24, \$175,000 in cooperative fee credit work was completed on improvements to the vegetation and facilities (such as water systems and fencing) that support the range program.

Managing open lands through grazing and implementing a range program also improves the habitat and recreation opportunities for hunting small game species. The range program is a true example of how the forest Service takes modest resources and leverages it into a benefit for both the public and resource conservation.

Agriculture is the top economic driver in Missouri, having over 88,000 farms and ranking 3rd in U.S. beef production. The Mark Twain's range program contributes around \$3.5 million dollars in economic value in support of the state's ag industry. Livestock sales associated with Forest grazing produces revenue that goes back into the local economies, families, and businesses across the state. The range program continually strives to exemplify the Forest Service Motto, "Caring for the land and serving the people."

Secure Rural Schools (SRS) program is another way that the USDA Forest Service provides benefits to communities in and around the Forest. SRS provides critical funding for schools, roads, and other municipal services to counties where Forest Service management activities collect revenue.

The many timber sales that support restoration efforts play a vital role in supplying twenty-seven counties across Missouri with SRS funding. In 2024, counties associated with Mark Twain National Forest, received over \$2.6 million from SRS funds. Most of the funding for each county is used by to support local schools and road departments. A small portion of the funds are allocated to restoration projects, that are recommended by a panel of community-members that serve on the Resource Advisory Committee. Next time you hear about a Title 1 school program or drive down a freshly paved road in a community near Mark Twain National Forest, you can think about the SRS program and the benefits it provides!