



NATIONAL CONSERVATION LANDS

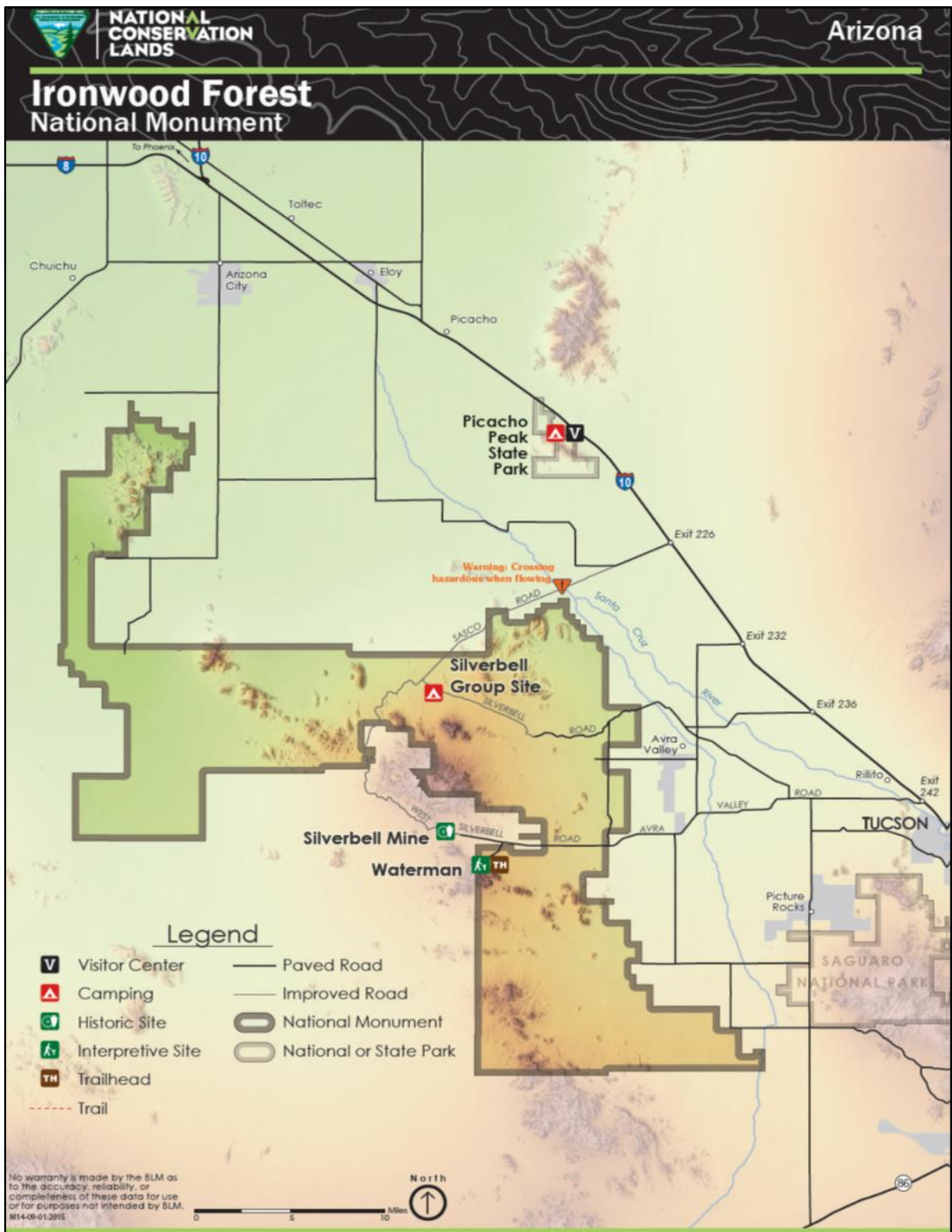
Arizona
2023: Annual Manager's Report

Ironwood Forest

National Monument



Map



Accomplishments

On October 22, 2023, the Bureau of Land Management (BLM), Arizona, State Director Raymond Suazo and BLM Arizona Gila District Manager Scott Feldhausen celebrated National Public Lands Day (NPLD) at the Waterman Restoration Site located on the BLM-managed Ironwood Forest National Monument (Monument) in Tucson, Arizona. Attendees included the BLM's partners, the Arizona Native Plant Society (ANPS) and the Arizona Sierra Club, as well as more than 50 members of the public.



"To ensure that the native vegetation continues to thrive, periodic checks for buffelgrass and preventive management and spraying will be necessary," said BLM Arizona State Director Raymond Suazo. "To further this critical work, BLM Arizona received \$390K in Bipartisan Infrastructure Law funding for the Monument that is being put into a new multiple-year buffelgrass treatment contract."

The celebration included a short ceremony during which a new interpretive display was unveiled that showcases the restoration work at the Waterman Site and its benefits to the Sonoran Desert ecosystem.

In the early 2000s, the Waterman Site had become an 18-acre buffelgrass monoculture, resulting in a loss of native vegetation and a subsequent buffelgrass infestation on the disturbed acres. Buffelgrass is extremely invasive and damaging to the Sonoran Desert ecosystem. Thanks to the efforts of BLM staff, interns, and partners, who removed the buffelgrass by hand over the course of more than ten years, the Waterman Restoration

Site is now a restored upland saguaro-palo verde landscape. It now consists of over 110 native plant species and fewer than 150 buffelgrass plants emerging per year.

The Waterman Restoration Site project supports the Department of the Interior's goal of working to conserve at least 30 percent of our lands and waters by the year 2030. It also supports the BLM's conservation and restoration goals of focusing on restoring our lands and waters, creating resilient landscapes, and addressing climate change.

This year was a year of big changes. In December 2022, the Tucson Field Office (TFO) welcomed a new Assistant Field Manager, Michael Dixon, to lead the non-renewable resource team and serve as the Monument Manager. He has previous experience working for the National Park Service, Department of Defense, and the U.S. Fish and Wildlife Service in various capacities, which heighten his awareness, appreciation, and respect for collaborative work.

In February, Monument Manager Michael Dixon, Gila District Public Affairs Specialist June Lowery, and interns Hannah Youngwirth and Catelyn Warren visited the Monument with partner Friends of Ironwood Forest (FIF) President Tom Hannigan and member Jim Avramis. The group hiked a trail in the Waterman Mountains.



During the hike, the group spotted several desert bighorn sheep, iconic desert plants, and the endangered Nichols Turk's Head cactus.

The group also toured the Titan Missile and Waterman Restoration Interpretive Sites. Later, they drove to an unnamed popular destination, nearby, where they observed visitors enjoying the freedom and solitude of dispersed camping.

The outing provided an opportunity to meet with partners and hear their perspectives on challenges and opportunities within the Monument and to discuss intermediate and long-term goals pertaining to invasive species control, visitor management, land acquisition, known threats to the Monument, and ongoing public education activities.

The Monument continued to foster conservation, by providing student interns with opportunities to engage in BLM's mission, while working alongside experienced professionals and volunteers. These valuable experiences and memorable moments introduced them to exciting career prospects available within the BLM and throughout the federal government.

Through two Assistance Agreements with Arizona Conservation Corps (AZCC), the Monument benefitted from hosting three youth crews and one lead intern to assist park rangers with regular maintenance of recreation sites, fence construction, trash cleanup, traffic counter installation, vegetation management, and errant trail removal.

Collectively, they installed three kiosks, placed more than 21 informational signs/route markers, cleaned up graffiti, maintained more than four miles of travel routes, mulched a restoration site, and removed 3,620 pounds of trash.

On March 28, 2023, the TFO hosted an AZCC crew on the Monument to address unauthorized travel routes. Work occurred in the vicinity of Pump Station Road. In terms of the restoration work accomplished, the crew utilized cut vegetation to mulch areas of heavy impact that detract from the Monument's natural features and occur in areas where motor vehicles are not allowed. The Pump Station Road area has seen a heavy increase of use over the past couple years which has caused severe damage to the landscape as users spread out and oversaturate the area. The crew worked on this project until April 4, 2023, and were able to trim back vegetation on two miles of Pump Station Road and mulch around a half mile of unauthorized routes in the area.



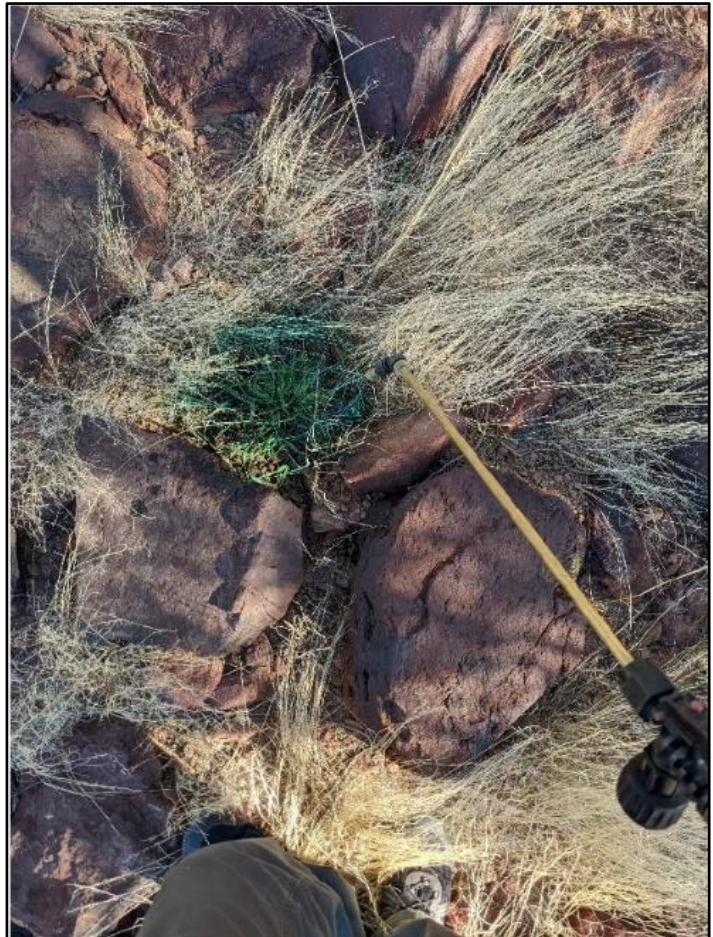
On April 5, 2023, the FIF gathered for a volunteer event on the Monument. Activities included picking up a large trash pile reported near the gas pipeline and applying mulch to aid in rehabilitation of unauthorized routes in the area.

Challenges

Buffelgrass continued to be the primary invasive species of concern on the Monument. Buffelgrass crowds out native vegetation and can create more frequent and severe wildfires than normal in the Sonoran Desert ecosystem. Herbicide treatments occurred in March and September. In the winter, infestations of buffelgrass were manually removed by Arizona-Sonora Desert Museum members, who contributed 228 hours towards the efforts.

Control efforts consisted of inventorying the presence of invasive and/or noxious weeds, then applying treatments as needed. Within the Monument, about 190 acres were treated. BLM volunteers, interns, and staff hiked into areas to apply spot treatments for buffelgrass.

The increase of trash found on BLM lands from abandoned camps and unauthorized dumping remains a challenge. A TFO Park Ranger dismantled and disposed of an abandoned camper trailer on January 30, 2023. The owner could not be located, and no identifiable information was found during the cleanup.





In January 2023, members of the Arizona Native Plant Society (AZNPS), Tucson Chapter, recycled around 70 Christmas trees using them to assist in experimental management of severe erosion caused by a September 2022 localized rain event.

The severe weather event dropped 3.5 inches of water in a short amount of time. AZNPS members plan to continue monitoring their experimental erosion mitigation effort as well as the compatibility with native plant emergence and growth.

A large part of recreation management is trash cleanup. This includes, but is not limited to, trash generated by immigrant activity, irresponsible recreational usage, and unauthorized dumping. BLM Law Enforcement Rangers, augmented by

other law enforcement staff from other agencies assigned to Operation Securing America's Border Resources (SABR), worked with two AZCC crews to conduct a border trash cleanup in the West Silverbell Mountains of the Monument. Smuggling routes within critical desert tortoise habitat were cleaned up. Approximately 2,215 pounds of trash was collected and removed.

Visitors

The Monument had 125,647 visits in 2023; this is a 188 percent increase over the 67,000 visits reported in 2021. The boost in Monument visitation was captured by numerous traffic counters carefully placed at popular entry points. Analysis of this primary data along with other inferences may increase our understanding of evolving visitor trends.

Intrepid adventurers were drawn to the Monument's location northwest of Tucson, Arizona, centered approximately on the west side of Avra Valley. Social media continued to serve as a strong attractant, with numerous outlets highlighting its unique geological formations, impressive desert beauty, diverse landscapes, and biodiversity.

TFO staff administered nine Special Recreation Permits issued for hiking tours, hunting outfitter guide services, wildlife and scenic viewing tours, OHV tours, and organized group events.

Partnerships

[Friends of Ironwood Forest \(FIF\)](#)

The FIF is a local non-profit organization that works for the permanent protection of the biological, geological, archaeological, and historical resources for which the Monument was established through education, community outreach, and advocacy. The FIF sustained their ability to offer a digital map of the Monument, which is a downloadable pdf file for printing. Alternatively, it can be downloaded from the Avenza app on Apple and Android devices. They also continued to offer virtual content, covering topics normally presented at in-person outreach events, using the same naturalist experts. The video productions remained available online for schools and their students, as well as the public, at no cost.

[Arizona Native Plant Society \(AZNPS\)](#)

The AZNPS's mission is to "promote knowledge, appreciation, conservation, and restoration of Arizona native plants and their habitats." The AZNPS, Tucson Chapter, continues to be active in the restoration of the former decorative rock mill and airstrip within the Monument. Work includes seeding treeless areas with native seed, controlling water movement, and stabilizing soil against erosion, covering bare areas with slash, and removing invasive plants.

[Audubon Society \(Arizona Chapter\)](#)

The National Audubon is an American non-profit environmental organization dedicated to the conservation of birds and their habitats. Audubon's mission is to protect birds and the places they need, today and tomorrow.

[Sierra Club Grand Canyon](#)

Sierra Club's mission is to explore, enjoy, and protect the wild places of the earth; to practice and promote the responsible use of the earth's ecosystems and resources; to educate and enlist humanity to protect and restore the quality of the natural and human environment; and to use all lawful means to carry out these objectives.

[Tucson Herpetological Society \(THS\)](#)

The THS's ongoing mission is to promote herpetological conservation, education, and research in the Sonoran Desert region. The THS has earned the reputation as being the foremost research and conservation-based herpetological society in the nation.

Science



The draft science plan for the Monument is being co-authored by staff in the U.S. Geological Survey (USGS) and BLM, it must go through two review processes: a USGS scientific peer review process as part of USGS Fundamental Science Practices, and a formal BLM review and approval process. The plan identifies special status species that could and do occur in the Monument, and the methods to monitor and assess these species.

Arizona Game and Fish Department staff conducted monitoring of Nichols Turk's-Head Cactus (*Echinocactus horizonthalonius* var. *nicholii*) demography plots through a contract with the Department of Defense. Under a new agreement with BLM that started in FY 2023, these partners are censusing and monitoring Nichols Turk's Head throughout the Waterman Mountains and continuing into the next year.

The winter rains brought on regrowth of buffelgrass on the south slope of Wolcott, where volunteers had been spraying regrowth on a 14-acre buffelgrass infestation since 2012. Numerous volunteer groups and two contractor crews have managed to suppress well over 90 percent of the buffelgrass population on this slope. The current native plant growth is evidence of the project's success.

Volunteers from the AZNPS, Tucson Chapter, have been instrumental in assisting the BLM by organizing and coordinating buffelgrass treatments throughout the Monument. Over 18 years of studying the plant's growth and seeding patterns has led to a heightened understanding of what and when to spray, and what quantity to spray; this is reducing the density of the plant's population from over 50 plants per acre, to less than 10 plants per acre in many areas. Native vegetation appearing where dense patches of buffelgrass once existed is evidence of success. This year, AZNPS contributed 424 hours of volunteer work towards biological projects on the Monument.

Climate Impacts

Drought across the Monument has caused the continued spread of invasive species. Monument staff completed 300 acres of invasive species survey and treated 200 acres of invasive Buffelgrass.

Climate Resiliency

To address climate resiliency, the BLM and partners were able to utilize experimental management of severe erosion by recycling Christmas trees as mitigation as well as its compatibility with the growth of native plant species.

Social and Environmental Justice

The Monument provided student intern opportunities by engaging students in conservation efforts. One example is a partnership with the University of Arizona RISE program to sponsor an intern at the local BLM office. The intern was able to complete a [Storymap](#) of the Monument and has been shared online. This tool will bring the Monument to those that are unable to visit in person.

Events

The Monument continues to see strong volunteerism. Together the FIF and AZNPS contributed over 2,859 volunteer hours, with 55 volunteers going out in small groups of 10 or less, meeting several National Monument management, outreach, education, and maintenance objectives.

This year, over 657 participants engaged in educational and interpretive opportunities delivered by the Monument partnerships. The BLM and the FIF conducted a National Public Lands Day event at Ragged Top Trailhead.

Excerpt from Mike Doyle (FIF) via email:

“Our workday and celebration of National Public Lands Day (NPLD) was a beautiful, sunny, but cool morning spent improving the lower trail to Ragged Top. Twenty-one volunteers worked on improving drainage, lopping brush and building cairns on the sometimes difficult to discern trail to the saddle.”

“We also erected a steel kiosk in the very rocky ground near the fenced pedestrian trail entrance. The kiosk will contain a color map of Ironwood Forest National Monument.”

At Ragged Top Trailhead, TFO staff and 21 volunteers performed trail maintenance, including trail delineation and marking, erosion control work, vegetation clearing, and rehabilitation of social trails leading off the designated path.

On March 12 and 13, 2023, FIF staffed a booth at the Festival of Books. The FIF volunteers gave out maps, sold copies of the Ironwood Forest natural history book, and answered

questions about the Monument. Three hundred participants engaged with FIF during the event.



In the past, Meet the Monument (MTM) has been one of the premier events conducted by the FIF. In 2023, the FIF did not conduct MTM as a single event as they had done in the past. Instead, they continued their commitment by planning multiple on-site presentations and hikes. These hikes offered visitors an opportunity to enjoy a more transformative experience of the Monument.





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Ironwood Forest National Monument

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[Ironwood Forest National Monument | Bureau of Land Management \(blm.gov\)](#)
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