

Decision Memo

Broken Arrow Trailhead Redesign

USDA Forest Service

Red Rock Ranger District, Coconino National Forest

Coconino County, Arizona

March 28, 2025

The USDA Forest Service seeks to redesign and improve the Broken Arrow Trailhead recreation site within the Coconino National Forest's Red Rock Ranger District. The current 2.5-acre recreation site that includes trailhead parking would add approximately 2.43 acres to accommodate infrastructure improvements such as a wider paved entrance, vault toilet, and time-limited parking for "staging." The purpose of these improvements is to enhance traffic flow; reduce the likelihood of vehicles parking in the nearby neighborhood; improve visitor experience; increase visitor safety; and alleviate environmental concerns related to human waste. The total project footprint is 5 acres (see Appendix A Map).

Background

The Broken Arrow Trailhead is approximately two miles south of the city center of Sedona and is adjacent to the Munds Mountain Wilderness. It is the main access point to Broken Arrow Basin where visitors experience the classic geological features and red rocks that make the greater Sedona area popular. The area includes popular destinations and breathtaking scenic viewpoints, including Submarine Rock, Chicken Point, and Devil's Staircase.

The sole access point to Broken Arrow Trailhead is a paved City of Sedona residential street called Morgan Road that connects to a narrow, gravel Forest Service Road (FSR) 179F. From this connection, FSR 179F leads approximately 0.1 miles to a junction in the road. On one side is the trailhead with 31 parking spaces, a trash can, and an informational kiosk. On the other side, FSR 179F continues into the Broken Arrow Basin where vehicles must navigate a rock filter, a line of boulders meant to deter lower-clearance vehicles, before getting very far past the trailhead.

Broken Arrow is the site of the first commercially guided vehicle tour in the area, starting in 1960. Since then, this road has remained a favorite amongst off-highway vehicle (OHV) users, including privately owned vehicles, guided vehicle tours, and rented OHVs. Pink Jeep Adventure Tours ("Pink Jeep") currently holds the only Forest Service permit for guided vehicle tours in the Broken Arrow Basin. Pink Jeep maintains the roads within Broken Arrow Basin, empties the trash bin at the trailhead, and uses a maintenance yard—a small area adjacent to the trailhead—to store equipment and materials.

In addition to OHV use, the area attracts hikers and bikers eager to use "the Hogs" non-motorized trail system. Hikers also access Munds Mountain Wilderness on the Margs Trail from the existing trailhead.

Visitation among all types of use has increased in the past decade. Anecdotally, the increase in OHV use has been especially noticeable at Broken Arrow.

Purpose and Need

The purpose of this project is to reduce impacts to the adjacent residential area; improve visitor experience; increase visitor safety; and address environmental concerns associated with the current use of the trailhead. Multiple issues inform the need for this project, including:

- **Visitor and residential conflicts:**
 - Residents along Morgan Road and nearby areas voice concerns over the noise produced by side-by-side OHVs traveling along Morgan Road. The transition from the paved Morgan Road to unpaved FSR 179F is sometimes interpreted by drivers as a cue to ready their vehicle for an “off-road” experience. This leads drivers to temporarily park, sometimes in large groups, along Morgan Road, exacerbating noise impacts on residents. Groups may also decide to “stage” –air down tires, strap down belongings, talk to companions, for example—along Morgan Road because there is more space there than along FSR 179F.
 - FSR 179F is a narrow roadway. Drivers entering from Morgan Road who see exiting traffic often wait along Morgan Road or along the beginning of FSR 179F until vehicles have all passed. Slowdowns can lead to congestion both on City of Sedona property as well as the national forest.
 - Once established decades ago, the trailhead grew organically as visitation increased and drivers damaged vegetation when parking their vehicles. The ad hoc design of the trailhead—with parking spots, a kiosk, and signage—has never provided for logical traffic flow. Vehicle turn-around is challenging within the trailhead or along the roads, especially for trailers. Added confusion comes from vehicles unable to make it past the rock filter that must back out of the narrow road, resulting in traffic congestion.
- **Safety:** No designated trail exists to connect pedestrians along Morgan Road to the Broken Arrow Trailhead. Visitors frequently walk along the roads. This presents a safety concern as pedestrians and vehicles utilize the same corridor.
- **Environmental:** The current Broken Arrow trailhead has no bathroom. Visitors often choose to relieve themselves in the wash adjacent to the trailhead, resulting in frequent observations of feces and associated toilet paper. Additionally, social trails and poor drainage in the area have led to vegetation loss and erosion. These issues can negatively impact water quality and degrade wildlife habitat.
- **Facilities:** This area has no gates to control access during closures due to fire risk (Stage 3 fire restrictions, for example) or other circumstances, such as emergency medical incidents.

These issues gained significant attention in recent years as the City of Sedona, in response to resident complaints, held multiple City Council meetings focused on OHV management. The public’s attention to these issues contributed to the formation of the [Greater Sedona Recreation Collaborative](#) (GSRC), a group composed of federal, state, and local land managers, local businesses, recreation groups, community members, and others. After identifying key issues, the collaborative is working to provide input on management strategies. It produced a March 2024 report titled *Proposed Strategies for Motorized Visitor Use Management in the Greater Sedona Area*. Among others, strategies include:

- “Effectively enforce the permit system with strong recommendations for the following tools:
 - Gates: Utilize a phased-in approach for implementation, looking first at highly impacted areas, such as Broken Arrow and Bear Mountain” (p. 37)

- “Pursue Broken Arrow trailhead reconfiguration to improve traffic flows and prevent stopping/staging where Morgan Road meets the dirt road in front of residences including:
 - Paving and redirecting traffic within the Broken Arrow parking lot to improve the traffic flow between passenger vehicles and motorized recreation.
 - Establishing staging areas for private jeeps/SUVs/trucks to prevent them from stopping along Morgan Road” (p. 41)

Forest Plan: The 2018 Coconino National Forest Land and Resource Management Plan (forest plan) provides direction related to these issues. Desired conditions and guidelines include:

- Recreation on the Coconino NF enhances the quality of life for residents and provides tourist destinations, which contribute to local economies. (FW-Rec-All-DC-1)
- Trailheads are easily accessible and are compatible with the traffic flow along main roads. Access roads to trailheads are open and maintained, and trailheads provide parking and vehicle turnaround space. (FW-Rec-Trails-DC-10)
- Trails and trailheads should be designed, built, rerouted, or maintained utilizing current best practices that promote sustainable trail surfaces, prevent conflicts with neighboring lands, address impacts to other resources, and consider user experiences. (FW-Rec-Trails-G-1)
- Unplanned, user-created trails should be managed to prevent future access. Resources damaged by unplanned, user-created trails should be rehabilitated to accelerate recovery and to prevent further resource impacts. (FW-Rec-Trails-G-3)
- The parking, staging areas, and main four-wheel drive road at Broken Arrow Basin should be managed for the Recreation Opportunity Spectrum (ROS – see below) setting of “rural” because of the area’s high level of use. The physical setting and maintenance level of the road should be managed as semi-primitive motorized to be consistent with the surrounding area. (MA-RedRock-G-5)

Recreation Opportunity Spectrum (as defined in the forest plan): Framework for stratifying and defining classes of outdoor recreation environments, activities, and experience opportunities. The settings, activities, and opportunities for obtaining experiences are arranged across a continuum or spectrum of six classes: primitive; semi-primitive non-motorized; semi-primitive motorized; roaded natural; rural; and urban.

Broken Arrow Trailhead’s class descriptions are:

- Rural: Encounters with other people are likely. Sites are developed for moderate to high uses.
- Semi-primitive motorized: Ample opportunity exists to interact with the natural environment, with some challenge or risk. Management, while subtle, emphasizes resource protection and visitor safety.

Project Proposal

The proposed Broken Arrow Trailhead Redesign, encompassing an area of 5 acres, would include a variety of trailhead and road enhancements. These enhancements include:

- 1) **Road entrance pavement and width expansion.** The first approximately 0.1 miles of FSR 179F would be paved and widened to accommodate two-way traffic flow between the trailhead and Morgan Road. Pavement would provide a cue for drivers to continue to the trailhead and increased width may reduce the potential for backups along Morgan Road caused by drivers waiting for other vehicles to exit. Some vegetation clearing may be needed to improve visibility.
- 2) **Expansion of trailhead and redesigned traffic flow.** The trailhead would be expanded into a teardrop design with one-way traffic flow to reduce back-ups caused by three-point turns. Parking areas, entrances, and exits would be regraded and may be surfaced with aggregate to minimize erosion and improve access, while sediment retention features would protect the nearby dry wash.

- The 31 existing parking spaces could increase slightly but not significantly.
- 3) **Rock filter.** The rock filter would be moved past the trailhead entrance yet still be within the project area. Vehicles would be able to enter the trailhead without needing to navigate the rock filter.
 - 4) **Time-limited parking.** Parking spaces separate from the parking lot would allow individual or small groups of vehicles space to “stage” by airing down tires, talking with other group members, and preparing for their drive. Parking in these areas would be time limited.
 - 5) **Vault toilet.** A double vault toilet would reduce the number of visitors who currently relieve themselves in the adjacent wash or other nearby areas.
 - 6) **Other amenities.** Other amenities could be constructed, such as picnic tables, bike racks, a pet-waste station, bear proof trash containers, and signage. Though not anticipated in the near term, an automatic fee machine would be installed if and when the trailhead is approved through the Federal Lands Recreation Enhancement Act’s fee proposal process.
 - 7) **Construction of two gates on FSR 179F.** A gate would be installed near the entrance (intersection with Morgan Road) and likely used to implement emergency forest closures. A second gate would be placed past the parking lot entrance. This second gate would allow drivers to enter the trailhead unimpeded but would allow the Forest Service to prevent entrance to the Broken Arrow Basin. This gate would implement temporary wet weather road closures and be needed if managers decide to limit the number of vehicles entering Broken Arrow Basin.
 - 8) **Fence construction.** Smooth wire or other similar fencing would be installed in the project area as needed to encourage smooth vehicle and pedestrian traffic flow and to protect resources.
 - 9) **Entrance trail.** Adoption of a user-created trail or construction of a trail(s) or sidewalk would allow for safe pedestrian access to the trailhead from Morgan Road. This trail would likely be dirt or gravel but may be upgraded to concrete or pavement in the future. Other user-created trails would be closed and naturalized to reduce erosion and encourage use of the developed trail.
 - 10) **Maintenance yard.** The current maintenance yard would remain approximately the same size but would be moved to accommodate trailhead enhancements. Additionally, a gate, fencing, and/or similar structures would be installed to prevent public vehicle access and allow entrance and accessibility for maintenance workers.

Decision

In response to the purpose and need for action, the USDA Forest Service has decided to authorize the above-described trailhead improvements. Included are soil and water best management practices (see Appendix B). This project supports forest plan objectives and guidelines for the Red Rock and Sedona Neighborwoods management areas.

Decision Rationale

The decision to implement these trailhead enhancements is based on the need to reduce impacts to the adjacent residential area; improve visitor experience; increase visitor safety; and address environmental concerns. In making the decision, the Forest Service has considered public feedback on the proposed action as described below.

Public Involvement

The proposal for this project was listed on the Coconino National Forest’s Schedule of Proposed Actions (SOPA) at <https://www.fs.usda.gov/project/?project=66778> on Aug. 19, 2024. Extensive public involvement occurred prior to this listing.

On Nov. 2, 2021, the City of Sedona sent a letter to the Coconino National Forest requesting that the Forest Service “implement a limited entry permit system for motorized use trails in the greater Sedona area,” including the Broken Arrow area. This started or added momentum to multiple efforts, including formation of the Greater Sedona Recreation Collaborative and a series of City Council meetings that included the Forest Service speaking with the council about OHV management. The Forest Service spoke about OHV use and Broken Arrow at Sedona City Council meetings occurring March 9, 2022; March 22, 2022; May 23, 2023; and Dec. 10, 2024. In addition to encouraging the Forest Service to address challenges at Broken Arrow, the City of Sedona moved forward with prohibiting parking along Morgan Road and reducing speed limits for OHVs.

In discussion with City of Sedona officials, multiple meetings were held with neighbors and community members. The Forest Service hosted the most recent onsite meeting June 4, 2024, with approximately eight neighboring residents, a few local elected officials, and a couple representatives from local OHV-related businesses. Specific design elements were discussed at length from pavement to the rock filter and gate locations and need for a bathroom. Neighbors did not support a significant increase in the number of parking spaces, room for trailer parking, or incorporation of a potential shuttle stop to drop off passengers.

Tribal Consultation

Tribal consultation on this project has been conducted. The following 13 tribes were contacted via a letter including the Forest's Quarterly Schedule of Proposed Actions on November 22, 2024: the Pueblo of Acoma, the Pueblo of Zuni, the Hualapai Tribe, the White Mountain Apache Tribe, the Fort McDowell Yavapai Nation, the Navajo Nation, the Yavapai-Apache Nation, the Yavapai-Prescott Tribe, the Havasupai Tribe, the San Carlos Apache Tribe, the Tonto Apache Tribe, and the San Juan Southern Paiute Tribe. No concerns were expressed through tribal consultation regarding this project or determinations of National Register eligibility for the inventoried cultural resources.

Exclusion from Further National Environmental Policy Act Analysis

The Forest Service NEPA regulations (36 CFR 220) provide that a proposed action may be categorically excluded from further analysis and documentation through an EIS or EA only if there are no extraordinary circumstances. The applicable CE category is 36 CFR 220.6(e)(22) Construction, reconstruction, decommissioning, or disposal of buildings, infrastructure, or improvements at an existing recreation site.

Evaluation of the following resource conditions indicates that no extraordinary circumstances are present in the project areas. As a result, further analysis and documentation is an EA or EIS is not necessary.

Federally listed threatened or endangered species or designated critical habitat; species proposed for Federal listing or proposed critical habitat; Forest Service sensitive species, Migratory Birds, and Eagle Act Species – The biological specialist review found the proposed action would have no effect to listed and other special-status species. There would be no change in habitat or population trend for any national forest sensitive species. There will be no intentional harm or harassment to migratory birds nor impacts to designated Important Bird Areas. No mitigations will be required.

Flood plains, wetlands, or municipal watersheds – There are no wetlands or municipal watersheds in the project area. The existing parking area to be upgraded is within the 100-year floodplain of an intermittent tributary of Oak Creek. With use of best management practices, sedimentation and erosion impacts would be minimized in these floodplains. Expansion of the parking lot will be minimized to protect from additional development in the floodplain.

Congressionally designated areas such as wilderness, wilderness study areas, or national recreation areas – The project does not occur in wilderness study areas or national recreation areas. The Munds Mountain Wilderness is adjacent to the project area.

Inventoried roadless areas or potential wilderness areas – The project does not occur in any inventoried roadless areas or potential wilderness areas.

Research natural areas – No research natural areas are within or adjacent to the project areas. There will be no effect to research natural areas.

American Indians and Alaska Native religious or cultural sites – The Coconino National Forest conducted a 4.93-acre survey of the entirety of the Broken Arrow Trailhead Redesign project including its 2.5-acre area of potential effect (APE) in 2024. The additional 2.43 acres of survey was included to account for any potential changes to the proposed project design. Tribal consultation on this project was conducted via Forest’s Quarterly Schedule of Proposed Actions in a letter mailed November 22, 2024. No American Indians and Alaska Native religious or cultural sites were identified within the project APE during the survey. Arizona SHPO concurred with the Coconino’s survey results and its findings of *No Historic Properties Effected* on December 9, 2024 (SHPO-2024-1247). If any religious, cultural sites or human remains are inadvertently discovered, work in the vicinity will stop and the District or Forest Archaeologist contacted to determine an appropriate course of action.

One previously recorded cultural resource was relocated, and no additional cultural resources were encountered. The previously located site was previously determined not eligible for inclusion on the National Register of Historic Places. Tribal consultation on this project was conducted via the Coconino’s Quarterly Schedule of Proposed Actions in a letter mailed Nov. 22, 2024. No comments or feedback was received. If any religious, cultural sites or human remains are inadvertently discovered or damage to existing sites occur, work in the vicinity will stop and the district or forest archaeologist contacted to determine an appropriate course of action.

Archaeological sites, or historic properties or areas – The proposed Broken Arrow Trailhead Redesign project’s 2.5-acre APE was analyzed and documented in Coconino National Forest’s Archaeology Survey and Cultural Resources Clearance report (CNF 2025-17-A), and a Cultural Resources Inventory Standards and Accounting (IS&A) form signed by the forest supervisor on Nov. 26, 2024, for a determination of effect to historic properties. The survey included an additional 2.43 acres (total of 4.93-acre survey) of inventory to account for any potential project design changes. Arizona SHPO concurred with the Coconino’s survey findings of *No Historic Properties Effected* on Dec. 9, 2024 (SHPO-2024-1247). The Forest Service will adhere to the following mitigation measures stated in the Coconino National Forest survey report:

- An archaeological monitor will be present during any of the project’s ground-disturbing activities should unknown subsurface archaeological materials be inadvertently exposed
- Should the project design be altered and its new APE extend outside of the current survey area, the Forest will consult on those changes with AZ SHPO and tribal partners before proceeding with implementation

Findings Required by Other Laws and Regulations

Coconino National Forest Plan: This project is consistent with the goals, objectives, and management standards of the Coconino National Forest plan, as amended.

National Historic Preservation Act: Coconino National Forest's Archaeological Survey and Cultural Resources Clearance (CNF 2025-17-A) of the proposed Broken Arrow Trailhead Redesign project was completed in accordance with Section 106 of the National Historic Preservation Act (NHPA) (36 CFR 800.1(a)) which required the Forest Service to identify historic properties (including National Register Eligible and recommended Eligible archaeological sites) within the undertaking's area of potential effect and determine if its activities have the potential to cause an effect.

American Indian Religious Freedom Act: Outreach to 12 tribes occurred via Forest's Quarterly Schedule of Proposed Actions mailing on November 22, 2024.

Endangered Species Act: The Forest Service biologist has developed a biological review for the proposed project area, which considered potential impacts on threatened, endangered, proposed, and petitioned species that are under review as well as habitat for these species. Based on this analysis, there will be no effects to federally protected species.

Migratory Bird Treaty Act: On Jan. 10, 2001, President Clinton signed an Executive Order outlining responsibilities of federal agencies to protect migratory birds. Upon review of the information regarding neotropical migratory birds and the scope of the project, the Forest Service wildlife biologist determined that there will be no intentional harm or harassment or impact to designated Important Bird areas from implementation of this project.

Bald and Golden Eagle Act: The Eagle Act, originally passed in 1940, prohibits the take, possession, sale, purchase, barter, offer to sell, purchase, or barter, transport, export, or import, of any bald or golden eagle, alive or dead, including any part, nest, or egg, unless allowed by permit (16U.S.C 668(a);50CFR 22). There will be no harm or harassment to bald or golden eagles.

Clean Water Act: Public Law 92-500, as amended in 1977 (Public Law 95-217) and 1987 (Public Law 100-4) (also known as the Federal Clean Water Act) provides the structure for regulating pollutant discharges to waters of the United States. In Arizona, the designated agency for enforcement of the Clean Water Act is the Arizona Department of Environmental Quality, and the Forest Service works in partnership to maintain and improve water quality. The project is adjacent to an intermittent tributary of Oak Creek. Oak Creek is an Outstanding Arizona Water and the highest antidegradation rules apply to all projects in the watershed to protect water quality. Several reaches in Oak Creek are water-quality impaired for E. coli. Soil and water best management practices will be implemented (as described in Appendix B) to minimize non-point source pollution from the project and complies with the Clean Water Act.

Administrative Review Opportunities

This decision is not subject to administrative review opportunities, including objections pursuant to 36 CFR 218.

Implementation Date

This decision may begin implementation immediately upon signature. Next steps, however, are likely to include development of an engineered design prior to construction. These steps may be funded internally, in cooperation with partner organizations, or through grant applications. Construction activities may require temporary closure of the area to ensure public safety.



For More Information

For additional information concerning this decision, contact Recreation Staff Officer Phillip Walrod at phillip.walrod@usda.gov or by calling (928) 203-7529.

ALEXANDER SCHLUETER
District Ranger

March 28, 2025

DATE

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Appendix A: Project Map: Brown Arrow Trailhead Redesign



Appendix B: Soil and Water Best Management Practices

These best management practices (BMPs) are designed to reduce potential adverse effects to soil and water quality. The intent is to improve the existing parking area to reduce erosion and sedimentation through construction of suitable drainage and providing adequate sediment filtering between the parking lot and adjacent intermittent stream channel.

Parking Lot Design and Reconstruction

- Parking lot design should address drainage into the parking lot and drainage leaving the parking lot and be reviewed by the district hydrologist.
- A bioswale is recommended, but other drainage control feature types may be installed as practicable. The intent is to minimize erosion and sedimentation from the parking lot into the adjacent intermittent channel.
- Limit the number of social trail access points from the parking lot to the intermittent channel to one in addition to the existing Margs Draw Trail crossing.
- Additional social trails from the parking lot to intermittent channel to be decommissioned will be naturalized using a combination of practices, including blocking access, decompaction of soil via scarification, installation of erosion-reducing features (waterbars, etc), and seeding where appropriate.

Sanitation

- Locate the double vault toilet as far from the intermittent channel as possible.
- Consider prioritizing installation of a pet waste station.

Implementation and Closeout

- Work with mechanized equipment will not be performed when soils are saturated.
- Areas disturbed by mechanized equipment will be prioritized for bare soil stabilization, via scarification to reduce compaction, seeding and/or wood mulching.
- Hydro-mulch seeding may be used to accelerate re-establishment of vegetation in disturbed areas.

Parking Lot Use and Long-Term Management

- Parking lot condition will be monitored and maintained at regular intervals to address drainage needs.
- Vegetation will be maintained adjacent to trails to the extent possible to aid in soil retention.