



National Park Service
U.S. Department of the Interior
Glen Canyon National Recreation Area
Page, Arizona

Environmental Assessment

Bicycle Use on Stud Horse Trail Network (PEPC 112944)



Environmental Assessment

Glen Canyon National Recreation Area

August 2024

Table of Contents

Chapter 1: Purpose and Need.....	3
Background.....	3
Purpose and Need.....	5
Impact Topics Carried Forward for Detailed Analysis.....	5
Visitor Use and Experience.....	5
Chapter 2: Alternatives.....	6
Alternative Carried Forward.....	6
Alternative A: No-Action Alternative.....	6
Alternative B: Proposed Action Alternative (Preferred Alternative).....	6
Chapter 3: Affected Environment and Environmental Consequences.....	10
Introduction.....	10
Cumulative Impact Scenario.....	10
Visitor Use and Experience.....	10
Affected Environment.....	10
Impacts of Alternative A (No-Action Alternative).....	12
Cumulative Impacts.....	12
Impacts of Alternative B (Proposed Action).....	12
Cumulative Impacts.....	12
Chapter 4: Consultation and Coordination.....	14
List of Agencies and Individuals Consulted.....	14
National Historic Preservation Act and Tribal Consultation.....	14
Endangered Species Act.....	15
Cooperating Agencies.....	15
Chapter 5: References.....	16
Appendix A: Impact Topics Considered but Dismissed.....	17
Special Status Wildlife and Plants.....	17
Cultural Resources.....	19
Soils.....	19
Appendix B: Relevant BLM Planning Documents.....	21
Arizona Strip Field Office and Vermilion Cliffs National Monument RMPs.....	21
Kanab Field Office RMP.....	21

CHAPTER 1: Purpose and Need

Background

Glen Canyon National Recreation Area (NRA) encompasses over 1.2 million acres across 185 miles between Lees Ferry, Arizona and Orange Cliffs, Utah, and was established by Congress in 1972 “to provide for public outdoor recreation use and enjoyment of Lake Powell and lands adjacent thereto... and to preserve scenic, scientific, and historic features contributing to public enjoyment of the area” (Public Law 92-593, 92nd Congress, S. 27, October 27, 1972). Opportunities for recreation at Glen Canyon NRA range from boating, river rafting, and sport fishing to hunting, wildlife viewing, and hiking.

Stud Horse Mesa has long been a popular destination within Glen Canyon NRA due to its spectacular views and the access it provides to Skylight Arch. Off-road travel has, historically, been popular atop the mesa and has resulted in the establishment of six to seven well-developed two-track routes that visitors over the years have confused with roads, increasing their use and definition. In 2019, Glen Canyon NRA formally converted the two-track routes atop the mesa into a hiking trail and added short, compatible segments to the trail network, to reduce off-road travel while continuing to provide access and recreational opportunities. This trail network is known as the Stud Horse Trail Network (Figure A). The network consists of 5.71 miles of trail and was developed in partnership with Kane County, Utah, in cooperation with the Bureau of Land Management (BLM) Arizona Strip and Kanab Field Offices, respectively and Canyon Equity, LLC. The network crosses into land managed by the BLM and land owned by Canyon Equity, LLC. The BLM Kanab Field Office evaluated designating its portion of the two-track as a multi-use trail, open to bicycle use, under an environmental assessment (EA) in 2020 (*Tom’s Canyon Mountain Bike Trail Extension and Maintenance*, DOI-BLM-UT-C040-2020-0001-EA).

Approximately 3.28 miles of the trail consists of compacted two-track while approximately 2.43 miles is compacted single track. No part of the trail is paved. The predominant trail surface is a compacted loamy fine sand with some portions lying upon hard rock surfaces. The entire network is comprised of smaller trail segments. The most widely used portion of the network leads to Skylight Arch, a recessed arch located at the northeastern end of Stud Horse Mesa providing views of Lake Powell and Navajo Mountain. The larger, southwestern portion of the mesa contains the remaining trail network and affords stunning views of the surrounding geological formations and landmarks including Bryce Canyon.

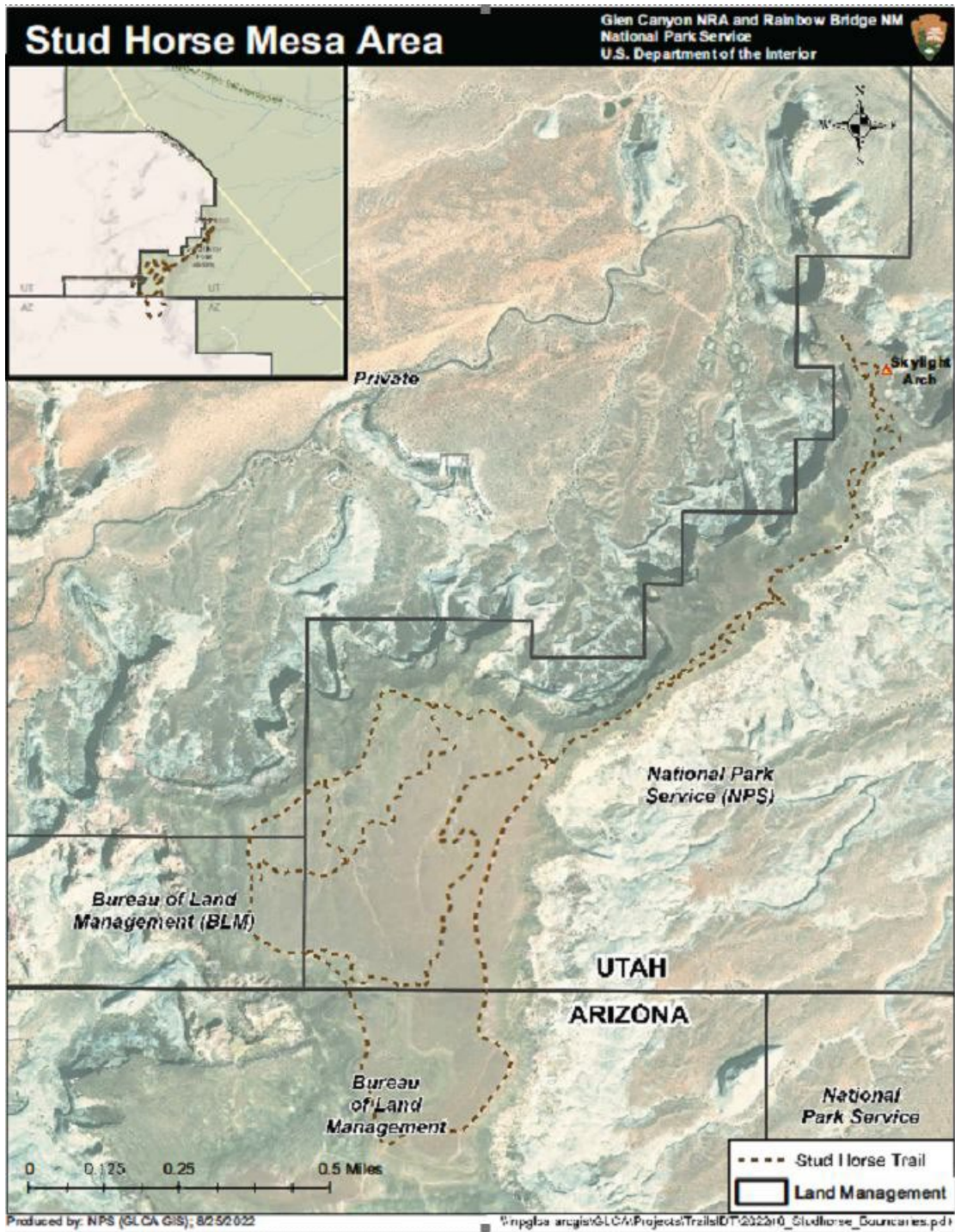


Figure A. Overview Map of Stud Horse Trail Network

Purpose and Need

The purpose of this project is to amend use of the existing Glen Canyon NRA Stud Horse Trail Network to provide a safe, non-road based bicycling experience on the Stud Horse Mesa trail network that expands visitor recreational opportunities, improves visitor experience, and supports evolving visitor-use patterns within the park.

The project is needed because the park does not provide opportunities for trail-biking. Currently, the only opportunities for cycling within the park are on designated roads and visitors frequently request information on trails for hiking and mountain biking. The project is also needed to meet the goals of the 1979 Glen Canyon NRA General Management Plan, which identifies the facilitation of trail-biking as a primary management objective along with maximizing the recreational experience and the number of opportunities for enjoying the recreation area. Low or radically fluctuating lake levels have encouraged visitors to seek other recreational opportunities within the park. Park employees have noticed growing evidence of unauthorized bicycle use within the park as visitors seek more rugged and off-road biking experiences, some that have occurred in unauthorized and prohibited areas.

Glen Canyon NRA has prepared this EA to meet the requirements of 36 CFR § 4.30 for authorizing bicycle use on an existing trail. After a public review period and comment analysis, NPS will determine if significant impacts would occur as a result of the proposed action. If none are identified, NPS will prepare a finding of no significant impact (FONSI). Bicycle use would not be permitted on Stud Horse trail network until a written determination is also published to the Federal Register for public review and comment analysis. Once all steps have been completed the Regional Director will approve the written determination and the GLCA superintendent may designate the network for bicycle use, including Class 1 e-bikes (see chapter 3).

Impact Topics Carried Forward for Detailed Analysis

The following impact topic associated with the proposed action was identified during internal park scoping. The topic identified below is discussed and analyzed in *Chapter 3: Affected Environment and Environmental Consequences*. Impact topics considered and dismissed from detailed analysis are discussed in Appendix A.

Visitor Use and Experience

Glen Canyon NRA has 40.66 miles of trails across its 1.25 million acres and receives 3.4 million visitors annually. Glen Canyon NRA strives to provide a variety of recreational opportunities for the public. The park unit currently supports hiking, boating, climbing, rappelling, canyoneering, fishing, swimming, backpacking, horseback riding, off-road vehicle use, camping and more. However, Glen Canyon NRA has no trails open to bicycle use and the only opportunities for cyclists involve riding on existing roadways alongside motor vehicles. This presents a potential safety hazard for cyclists and does not provide riders with any opportunities for technical cycling, a regionally popular recreation activity. Allowing bicycle use on the Stud Horse Trail Network would provide an opportunity for cyclists to enjoy a scenic and somewhat technical bike ride away from motor vehicles.

CHAPTER 2: Alternatives

Two alternatives, no action and the proposed action/preferred alternative, are being carried forward.

Alternatives Carried Forward

Alternative A: No-Action Alternative

Under the No-Action Alternative, the Stud Horse Trail Network would remain open to pedestrian (and occasional equestrian) traffic, the existing two-track trail that lies within the jurisdiction of the BLM Arizona Strip Field Office would remain undesignated (i.e., any mechanized use would be deemed illegal), and the area being proposed as a secondary trailhead under the Proposed Action/Preferred Alternative would be left undeveloped. Curtailing prohibited cycling activity would require dedicated enforcement patrols, the installation of detailed signage, and possibly the construction of barriers or alteration to the trail design to discourage the use of bicycles.

Alternative B: Proposed Action Alternative (Preferred Alternative)

Under the Proposed Action Alternative, bicycles, including Class 1 e-bikes (see chapter 3) would be allowed to operate on the segments of Stud Horse Trail Network that lay within Glen Canyon NRA. The existing trail surface and soil conditions are suitable for accommodating bicycle use; therefore, no additional work to the trail bed would be needed to accommodate bicycles. The trail design is also suitable for bicycle use and no armoring or additional trail construction would be necessary. Trailhead signage would be added, including route designation posts and right-of-way signage at trailhead to reduce potential conflicts between different users (i.e., equestrians, hikers, and cyclists). Allowing bicycle use on the trail network would not increase the trail network's life cycle maintenance costs, other than the addition of trailhead signage.

Bicycles are already permitted on the segment of the network administered by the BLM Kanab Field Office (DOI-BLM-UT-C040-2020-0001-EA). AS part of this action, the portion of two-track that lies within the BLM's Arizona Strip Field Office jurisdiction and is currently an undesignated route would be designated as single-track Mechanized Trail ("Open to All Users for Non-Motorized Uses and Mechanized Uses") (Figure B.). The BLM Arizona Strip Field Office plans to use this EA for their NEPA analysis and issue their own finding of no significant impact (FONSI) document and decision record.

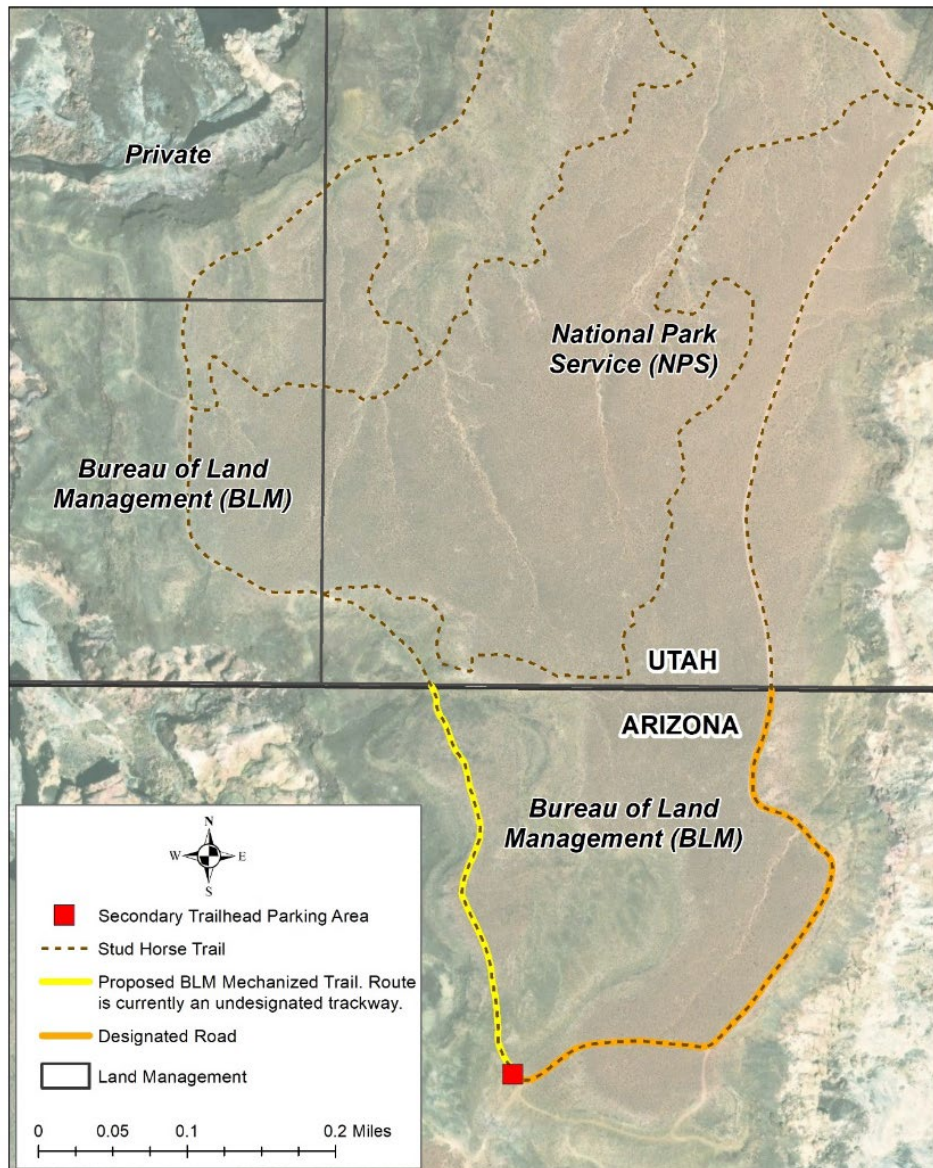


Figure B. Location of Proposed Trail and Parking Area on BLM-administered Lands

As part of the project, the Arizona Strip Field Office will develop a small trailhead parking area (Figure C.). Development of the additional trailhead would include placement of rocks on the ground's surface that would delineate the trailhead parking area, and the installation of two signs. The parking area would be approximately 0.02 acres (large enough for two or three vehicles, depending on vehicle size). One sign would provide interpretive information about the area and use of the trail. The second sign would be a smaller regulatory sign to indicate the use types allowed on the trail network. Trailhead signage would include information about how to minimize hiker-equestrian-cyclist conflicts.



Figure C. Visual Simulation of Proposed Parking Area on BLM-administered Land

Glen Canyon NRA and BLM plans for cyclic maintenance of the Stud Horse Trail Network include inspections after significant rain events and could potentially include the removal of vegetation that may begin to sprout up within the trail or trailhead parking areas after rain events. Significant rain events may result in the need for clearing and recompacting the section of the trail that wraps around a large dirt mound. Rain may cause material from the mound to slough off into the trail corridor. This cyclic maintenance is required for management of the trail network regardless of whether bicycles are permitted. The following actions would be implemented to reduce or eliminate adverse impacts from specific project maintenance activities. Trail maintenance protocols are based upon standard practices and operating procedures that have been employed and proven effective in other areas of the park.

- If, in connection with this project, any human remains, funerary objects, sacred objects, or objects of cultural significance, as defined in the Native American Grave Protection and Repatriation Act (NAGPRA) (Public Law 101-601; 104 Stat. 3048; 25 U.S.C. 3001), are discovered, operations in the immediate area of the discovery would stop, the remains and objects would be protected, and the NPS or BLM Authorized Officer (or their designee) and the NPS or BLM Archaeologist would be immediately notified. An area measuring 100 feet around the discovery would be protected until notified by the Authorized Officer that operations may resume.
- To minimize soil compaction, due to the clay soil in the area, trailhead definition or maintenance using motorized equipment would be limited to periods when the soil and ground surface are not excessively wet.
- All vehicles, machinery, tools, and equipment used to implement the project would be cleaned (dirt, weed and seed free) prior to entering the park to ensure they do not introduce or spread non-native or invasive species.
- Work areas shall remain free of trash to reduce potential for California condors to be attracted to the location.
- Project work would be done in the non-breeding season of Mexican spotted owl and California condor, if applicable. No work would be performed during late winter, early

spring if condor activity was detected, and late spring through the end of September if a Mexican Spotted Owl nest were present.

- Periodic surveys would be conducted in the project area using USFWS protocols during nesting periods (as described in previous bullet).

CHAPTER 3: Affected Environment and Environmental Consequences

Introduction

This chapter describes the affected environment consisting of the existing, or baseline, conditions and expected future conditions, and analyzes any potential beneficial and adverse environmental consequences (impacts or effects) that may occur when implementing the alternatives. The current condition of the resource is described in the affected environment, followed by an analysis of direct, indirect, and cumulative impacts.

Cumulative Impact Scenario

Cumulative impacts are defined as “effects on the environment that result from the incremental effects of the action when added to the effects of other past, present and reasonably foreseeable actions regardless of what agency or person undertakes such other actions” (40 Code of Federal Regulations (CFR) 1508.1(g)(3)). In determining cumulative impacts, this document examines past, present, and reasonably foreseeable future actions at GLCA. Cumulative impacts are considered for the No Action Alternative and the Preferred Alternative.

Cumulative impacts are determined for each resource topic by combining the impacts of the alternative being analyzed and other past, present, and reasonably foreseeable future actions that would result in beneficial or adverse impacts. The geographic scope of the cumulative impacts analysis is the region of southern Utah and northern Arizona immediately surrounding Stud Horse Mesa. This area extends as far west as the junction of Cottonwood Canyon Road and Highway 89, as far east as the community of Lechee on the Navajo Nation, and as far south as Bitter Springs on the Navajo Nation and is geographically limited to the north by Lake Powell. The temporal scope is a period of 10 years.

Visitor Use and Experience

Affected Environment

Stud Horse Mesa features Skylight Arch, an increasingly popular destination with hikers and occasionally equestrian users. Both groups take advantage of the trail network that was designated through an EA analysis in 2020. Horse riders generally park below the rim near an area called The Corrals and ride a series of two-tracks up to the mesa and connect to the network, although some access the mesa from north side (BLM Kanab administered). Most hikers now use the primary trail head at the beginning of the trail segment to the arch. Before designation as a hiking trail network, off-road vehicles bisected the mesa with a network of secondary routes, often driving out to Skylight Arch. Hikers and equestrians now enjoy the greater degree of silence and solitude that characterizes the mesa, along with extraordinary views of the surrounding region. The trail network offers alternative recreational opportunities to water-based sports.

Glen Canyon NRA receives an average of 3.4 million visitors a year. While the area has historically been known for the reservoir, Lake Powell, it only comprises 13% of the recreation area. An increasing number of visitors are seeking land-based recreation opportunities, and this project emphasizes providing a more diverse range of recreational opportunities. Currently, Glen Canyon NRA has no opportunities for technical mountain biking. The only available cycling opportunities across the recreation area’s 1,902 square miles are on existing roadways where riders must share the road with motor vehicles. Operating a bicycle on an improved roadway with the presence of vehicles is a different recreational experience than riding a bicycle on a trail and is not a satisfactory substitute for visitors

wanting a technical mountain biking experience inside the park. Cycling on roads requires cyclists to share the road with motor vehicles. These roads do not offer opportunities for practicing technical biking skills, as they are maintained to accommodate motor vehicles and are therefore typically “smoother” terrain than what is desired by cyclists. In addition, navigating roadways with vehicles provides a less safe environment for cyclists. Allowing cyclists to operate on a non-motorized, off road-trail would provide them with a safer experience with increased opportunity for solitude, a natural soundscape and technical terrain.

Per NPS Policy at 36 CFR 4.30(i), the operation of electric bicycles (e-bikes) is to be allowed within national parks, wherever traditional bicycles are allowed, unless otherwise directed by the Park's Superintendent. E-bikes are defined as two- or three-wheeled cycles with fully operable pedals and an electric motor of less than 750 watts (1 horsepower) that provides propulsion assistance and meets the requirements of one of the following three classes (36 CFR 1.4):

- Class 1- An electric bicycle equipped with an electric motor not exceeding 750 watts (one horsepower) that only provides assistance when the rider is pedaling and ceases to provide assistance when the speed of the bicycle reached 20 miles per hour.
- Class 2- An electric bicycle equipped with a motor that may be used exclusively to propel the bicycle, and that is not capable of providing assistance when the bicycle reaches the speed of 20 miles per hour.
- Class 3- An electric bicycle equipped with a motor that provides assistance only when the rider is pedaling, and that ceases to provide assistance when the bicycle reaches the speed of 28 miles per hour.

At Glen Canyon NRA, e-bikes with motors of 750 watts or less (Class 1) are authorized to operate upon all authorized roadways (as identified in the 1979 Glen Canyon NRA General Management Plan) and upon all trails designated for bicycle use. Classes 2 and 3 are not to be authorized for use on trails within Glen Canyon NRA

Past action in the project area includes the designation of a trail network using both two-track and single-track trails adjacent to Skylight Arch trail, the establishment of a hiking trailhead at Skylight Arch trail, and the closure of the network to vehicles, except for access to the trailhead. A private resort (Canyon Equity, LLC) on the northern flank of the trail network has a special use permit (SUP) to access the mesa from their property to offer specially guided functions for their guests. The resort hopes to offer biking opportunities once the trail network opens access to bicycle usage, and the BLM Kanab Field Office has already designated their section of the network as available to bicycle travel in a separate EA.

There are no other actions planned in the project area at this time. While not physically connected or immediately adjacent to the Stud Horse Trail Network, the park plans to add bicycle usage to the Vermilion View Trail, which would allow cyclist to access Horseshoe Bend from the City of Page's Rim Trail. That trail has already been assessed for bicycle usage in an EA. Notification of a determination in the Federal Register awaits conclusion of a Memorandum of Understanding (MOU) with the City of Page. Together, both trails would offer enhanced recreational opportunities in and around the developed (high visitation) areas.

Impacts of Alternative A (No-Action Alternative):

Under the No Action Alternative, the Stud Horse Trail Network would remain open only to pedestrian and equestrian use. Conditions at the site of the trail network would remain the same. Glen Canyon NRA would continue to have no cycling trails and would not meet the prescribed management objectives of the 1979 General Management Plan. Cyclists wishing to recreate within the area would be limited to the two cycling trails provided by the city of Page, Arizona and on designated roads. Unauthorized cycling would likely continue to occur within Glen Canyon NRA. Mechanized use of the proposed trail on BLM lands (currently an undesigned route) would continue to be an unauthorized activity.

Cumulative Impacts:

The No Action Alternative would have no new impacts, and, therefore, there would be no cumulative impacts.

Impacts of Alternative B (Proposed Action):

Under this alternative, the trail network would be shared by hikers, cyclists, and infrequently equestrians. The three groups of users travel at different speeds and have different spatial requirements. This could result in an increased number of situations in which visitors must negotiate the right-of-way. Visibility along the entire extent of the trail is high. Chance or surprise encounters will not pose a major safety issue, and installation of appropriate right-of-way signage would also help different users negotiate safe travel. Some pedestrian and equestrian users may feel negatively about sharing use of the trail with cyclists; however, Glen Canyon NRA has many other trails and areas where they do not share usage with cyclists. Significant conflicts between the user groups are not anticipated as the trail network does not receive enough visitation to result in crowding and visitation is not expected to significantly increase due to the location of the trail and the conditions of the roads that provide access to the trail. This alternative would designate the BLM portion of the trail, thereby formally authorizing use of this route for bicycles and ensuring legal use of the route for this type of recreational use.

Existing research shows no significant difference in impacts generated by e-bikes and traditional bicycles (NPS 2021a, IMBA 2015). The noise generated by e-bikes includes the sound of their tires rolling over a road or trail and, at most, a low steady whine that may be emitted when the electric motor is engaged. The impacts on the soundscape caused by e-bikes are comparable to those caused by traditional, non-motorized bicycles and significantly less than those resulting from typical motor vehicle use (BLM 2020).

Cumulative Impacts:

Past, present, and reasonably foreseeable future actions that could affect visitor use and experience in the project area include the creation of the Stud Horse Trail Network for hiking, the granting of an SUP to Canyon Equity, LLC, and the BLM-Kanab Field Office's designation of their section of the network as open for bicycle use. These actions serve to support the action proposed in this plan and would not cause additional impacts outside of those described elsewhere in this section. Overall, allowing bicycle use on trails within areas that can safely support cycling without presenting potential threats to park and BLM resources may decrease unauthorized cycling in areas where bicycle use may pose a threat to the park's natural and cultural resources. This could reduce potential adverse impacts to cultural and natural resources over time, such as vegetation and biological soil crusts. Other actions outside of the project area, such as the development of the Vermillion View Trail, may increase demand for recreational trails throughout the park.

Alternative B would also cumulatively add to the suite of recreation opportunities available in the local area. As a result, there would be an overall beneficial cumulative impact to recreation resources and the construction of the additional trailhead would provide a more active BLM and NPS recreational presence to the area. Providing additional and diverse recreational opportunities within the area is consistent with local partner initiatives to increase tourism revenue and positively affect the socioeconomics of the region. When the effects of Alternative B are combined with other past, present, and reasonably foreseeable impacts, the total cumulative impacts on visitor use and experience would continue to be both adverse and beneficial. The adverse impacts of Alternative B would contribute to, but would not substantially change, the effects already occurring.

CHAPTER 4: Consultation and Coordination

List of Agencies and Individuals Consulted

The following agencies and organizations were contacted and invited to participate in the planning process. Affiliated tribes were also invited to participate in the planning process and are listed below under *National Historic Preservation Act* and *Tribal Consultation*.

- Bureau of Land Management
- U.S. Fish and Wildlife Service
- Arizona State Historic Preservation Office
- Utah State Historic Preservation Office
- Canyon Equity, LLC.

National Historic Preservation Act and Tribal Consultation

As required by Section 106 of the National Historic Preservation Act (NHPA), the park consulted with the Utah and Arizona State Historic Preservation Offices (SHPO) and affiliated tribes to assess the effect of the project on historic properties. The Section 106 consultation process was conducted separately from, but concurrently with, the NEPA process. Consultation under Section 106 is complete; however, the park will continue consultation as appropriate during project implementation to ensure that SHPO and tribal perspectives and issues are adequately addressed. The SHPOs determined that there were *no historic properties affected*. The one recorded archaeological site in the action area was determined ineligible.

Letters were sent to both Arizona and Utah SHPOs on September 24, 2023. Arizona SHPO responded on November 20, 2023, and Utah SHPO responded on October 25, 2023. Both agencies concurred with the determination.

- Arizona Historic Preservation Office – Determination: *No historic properties affected*.
- Utah Historic Preservation Office – Determination: *No historic properties affected*.

Letters were sent to the seven (7) affiliated tribes (listed below) on December 10, 2020. A response was received from the Paiute Indian Tribe of Utah on January 12, 2021, in which the tribe concurred with the determination and did not object to the action. A separate project update letter was mailed March 3, 2023, alerting the tribes of the commencement of the NEPA process. No responses have been received to date.

- Hopi Tribe
- Kaibab Band of Paiute Indians
- Navajo Nation
- Paiute Indian Tribe of Utah
- Pueblo of Zuni
- San Juan Southern Paiute
- Ute Indian Tribe

Endangered Species Act

The NPS prepared a biological assessment (BA) for the proposed project, which was submitted to the USFWS Utah Field Office, Ecological Services Division, on March 16, 2020, as part of formal consultation under the ESA (NPS 2023). Out of eight (8) threatened or endangered species that were identified to potentially occur in the project area, the BA concluded that the proposed project *may affect, not likely to adversely affect* both the California condor and the Mexican spotted owl; and *No effect* on the other six species (referenced in Appendix A). The USFWS concurred with the determination of the BA in a Biological Opinion dated September 23, 2023.

Cooperating Agencies

The Council on Environmental Quality (CEQ) regulations define a cooperating agency as “any federal, state, tribal, or local agency with jurisdiction by law or special expertise with respect to any environmental impact involved in a proposal that has been designed by the lead agency” (40 CFR 1508.1). Because a portion of the trail network crosses BLM-administered lands, and therefore, the BLM will need to issue a separate decision record for the project, the BLM was invited to participate in the National Environmental Policy Act (NEPA) planning process as a cooperating agency.

The BLM assisted with preparation of this EA in several ways, including conducting or providing relevant information, reviewing baseline condition reports, identifying issues, assisting with the formulation of alternatives, and reviewing EA text and other EA materials. As lead agency, the NPS is responsible for the content of the EA.

Because a portion of the project area is located on lands managed under the *Arizona Strip Field Office* under the *2008 Arizona Strip Resource Management Plan (RMP)* and the Kanab Field Office under the *2008 Kanab Field Office Record of Decision and Approved RMP*, the relevant information from these documents is included in Appendix B.

Chapter 5: References

Bureau of Land Management, 2020. *Final Rule for Increasing Recreational Opportunities Through the Use of Electric Bikes*. 85 FR 69207. Published November 2, 2020.

Bureau of Land Management. 2020. *Tom's Canyon Mountain Bike Trail Extension and Maintenance Environmental Assessment*.

Bureau of Land Management. 2008a. *Arizona Strip Field Office Record of Decision and Resource Management Plan*.

Bureau of Land Management. 2008b. *Vermilion Cliffs National Monument Record of Decision and Resource Management Plan*.

IMBA 2015. IMBA report: *A Comparison of Environmental Impacts from Mountain Bicycle, Class 1 Electric Mountain Bicycles, and Motorcycles: Soil Displacement and Erosion on Bike Optimized Trails in a Western Oregon Forest*, Fall 2015.

National Park Service. 1979 *General Management Plan for Glen Canyon National Recreation Area*.

National Park Service. 2021a. *Final E-Bike Literature Review*. Distributed to NPS on August 16, 2021.

National Park Service. 2022b. *Annual Park Recreation Visitation for Glen Canyon National Recreation Area*. Accessed April 19, 2023.

[https://irma.nps.gov/STATS/SSRSReports/Park%20Specific%20Reports/Annual%20Park%20Recreation%20Visitation%20\(1904%20-%20Last%20Calendar%20Year\)?Park=GLCA](https://irma.nps.gov/STATS/SSRSReports/Park%20Specific%20Reports/Annual%20Park%20Recreation%20Visitation%20(1904%20-%20Last%20Calendar%20Year)?Park=GLCA).

Appendix A: Impact Topics Considered but Dismissed

Special Status Wildlife and Plants

As discussed in the EA, the NPS consulted with the USFWS regarding potential impacts of the project on a total of eight (8) threatened and endangered species that have the potential to occur within the general vicinity of the project area. The USFWS concurred that the project would have “no effect” on six (6) of the eight (8) species and that the project “may affect” but is “not likely to adversely affect” the remaining two (2) species.

Species Considered and Evaluated

Species Common and Scientific Name	Status	Potential to Occur	Critical Habitat	Rationale for Exclusion	Habitat Description and Range in the Action Area
Birds					
California Condor <i>Gymnogyps californianus</i>	E	Yes	No		Suitable roosting habitat present
Mexican Spotted Owl <i>Strix occidentalis lucida</i>	T	Yes	Yes		Suitable roosting habitat present; no designated critical habitat
Yellow-billed Cuckoo <i>Coccyzus americanus</i>	T	No	Proposed	HABITAT	Exposed mesa top with low- growing arid shrub vegetation only
Southwestern Willow Flycatcher <i>Empidonax traillii extimus</i>	E	No	Yes	HABITAT	Exposed mesa top with low- growing arid shrub vegetation only
Reptiles					
Northern Mexican Gartersnake <i>Thamnophis eques megalops</i>	T	No	Proposed	HABITAT, OUTSIDE KNOWN DISTRIBUTION RANGE	Exposed mesa top with low- growing arid shrub vegetation only
Fishes					

Razorback Sucker <i>Xyrauchen texanus</i>	E	No	Yes	HABITAT	Exposed mesa top with low-growing arid shrub vegetation only
Flowering Plants					
Welsh's Milkweed <i>Asclepias welshii</i>	T	No	Yes	HABITAT	No deep sandy habitats in Action Area
Jones Cycladenia <i>Cycladenia humilis var. jonesii</i>	T	No	No	HABITAT	No appropriate Chinle Formation substrates in Action Area

Table 1 Summary of Species Considered and Evaluated in Biological Assessment

Both the California condor and the Mexican spotted owl were analyzed in detail in the context of the Biological Assessment because of the habitat potential in the action area and the proximity of sightings of individuals relative to the action area. The USFWS concurred with the NPS determination that the proposed action *may affect, not likely to adversely affect* the California condor due to its rare appearance in the action area and the presence of recommended mitigation measures. Although occasionally seen soaring over the Wahweap area and along the river canyon below the dam, there have been no documented sightings in the action area. The nearest attempted (2012) breeding roost occurred in Glen Canyon near Colorado River Mile -5.0R (roughly ten miles from the action area).

Summary of Potential Effects to California Condor, Proposed Applicant Committed Conservation Measures and Effect Determinations

Potential Effects	Conservation Measures	Effect Determination
Attracted to activities related to trail construction and trail and road maintenance	Human-avoidance training prior to release; areas to remain free of trash to reduce the chances of condor being attracted to the location; project work done in non-breeding season	May affect, not likely to adversely affect
Interference with nesting and breeding	None currently required	No effect

Table 2. Summary of Effects, Measures and Determination for the California Condor

The USFWS concurred with NPS in determining that the proposed action *may effect, not likely to adversely affect* the Mexican spotted owl. Of the twenty-one documented sightings, none occurred within the action area. Only four of the observations may have been related to the preferred breeding habitat: dense stands of large forest trees or within deep, narrow canyons. Neither are featured in the action area. Given the limitations of the action area to provide preferred habitat, it is unlikely for an individual to be present in the action area.

Summary of Potential Effects to Mexican Spotted Owl, Proposed Applicant Committed Conservation Measures and Effect Determinations

Potential Effects	Conservation Measures	Effect Determination
Flushing and other adverse behavioral effects due to construction and maintenance activities and noise	Surveys of suitable roosting habitat; trail construction and repair work will not be conducted during the breeding season	May affect, not likely to adversely affect
Effects on potential future individual birds	Periodic surveys in action area using USFWS protocols	Beneficial

Table 3. Summary of Effects, Measures and Determination for the Mexican Spotted Owl

A Golden eagle nest exists within the project area that has successfully been used to fledge young every three to five years. Golden eagles were not included in the Biological Assessment as they are not a threatened or endangered species, however, because they are protected by the Bald and Golden Eagle Protection Act, the park was careful to consider the possibility of potential impacts to the species. The nest is in proximity to a designated park road atop the mesa and not adjacent to the trail. Allowing bicycles to use the existing trail network would not directly affect any birds using the nest and the park does not anticipate a significant increase in vehicular traffic as a result of allowing bikes on the trail. Therefore, the park does not believe the proposed action has the potential to impact Golden eagles within the project area. For the reasons identified in Tables 1-3, the park also determined that six other species would not be affected by the proposed action, and two species would not be adversely affected by the action. Special status wildlife and plants were therefore considered but dismissed as an impact topic.

Cultural Resources

The park completed an archeological survey of the area to determine if any historic properties are present within the area of potential effects (APE). The archeological survey covered 330 acres and was completed in 2019. One archeological site and two isolated finds were found and documented within the APE. The archeological site and both isolated finds were determined to be ineligible for the National Register of Historic Places in consultation with the Arizona and Utah State Historic Preservation Offices, due to the lack of diagnostic material, limited amount of archeological material, limited data potential, and lack of site integrity due to disturbances. As ineligible sites, they do not meet the criteria for historic properties in 54 U.S.C. 306108 (commonly referred to as Section 106 of the National Historic Preservation Act). Thus, it was determined that this current project will have No Historic Properties Affected.

The park also completed consultation with seven associated tribes. Consultation with the tribes did not result in identification of any tribal concerns, nor of any concerns about ethnographic resources related to tribal use of the landscape.

Soils

The operation of bicycles on the trail is not expected to have a significantly different impact upon the trail surface than the pedestrian traffic, due to the trail surface types that exist along the network. The predominant trail surface is a compacted loamy fine sand with some portions lying upon hard rock surfaces. The main portion of the mesa contains loamy fine sand and it is unlikely that users would ride off-trail in this part of the project area due to the difficulty of cycling through sand. Therefore, any

biological soil crusts that occur within this area are naturally protected. The Skylight Arch trail segment of the larger network may experience some off-trail bicycle use, as the ground surface in this area is rocky. However, this area should not be adversely impacted by off-trail bicycle use because it is largely exposed rock. The NPS does not anticipate any notable impacts to soils because of this project, nor do any significant soil resources occur within the project area. For these reasons, soil was not carried forward as an impact topic for detailed analysis.

Appendix B: Relevant BLM Planning Documents

The alternatives for this EA conform to decisions contained within these plans.

Arizona Strip Field Office and Vermilion Cliffs National Monument RMPs

The following decision is from Table 2.13 in the Vermilion Cliffs National Monument RMP¹ (BLM 2008b) regarding Recreation and Visitor Services:

- DFC-RR-13 (which states in part): The Uplands RMZ will be managed for self-directed motorized recreation with access to non-motorized opportunities.

The following decision is from Table 2.14 in the Arizona Strip Field Office RMP (BLM 2008a) regarding Travel Management:

- DFC-TM-07 (which states in part): Settings will be maintained within the Specialized TMA that typically provide for motorized and mechanized entry to the most remote areas on lower standard, primitive roads with few and widely scattered, rustic developments in mostly natural-appearing areas. Rudimentary facilities may be present when necessary to protect resources or educate visitors.

The preferred alternative and proposed action would not conflict with decisions throughout the plan.

Kanab Field Office RMP

The NPS proposed action and preferred alternative is in conformance with, and implements portions of, the 2008 *Kanab Field Office Record of Decision and Approved RMP* As part of the RMP (Decision # Rec-15), the Kanab Field Office will develop recreation sites and facilities needed to accommodate users, facilitate recreational uses of public lands, and protect resources for trail segments located on BLM lands.

The NPS proposed action and preferred alternative is supported by the following plan goals, objectives, and decisions:

Recreation

Goals and Objectives

- Provide recreational activities in a variety of physical, social, and administrative settings, from primitive to near-urban, that allow visitors to have desired recreational experiences and enjoy the resulting benefits.
- Provide opportunities for visitor use and enjoyment of the area, consistent with resource capabilities and mandated resource requirements; provide for visitor education and interpretation of the recreational opportunities within the decision area.

¹ The Uplands Recreation Management Zone (RMZ) is partially within the Arizona Strip Field Office, and partially within Vermilion Cliffs National Monument. Management direction for this RMZ is contained within the Vermilion Cliffs National Monument RMP.

Management Actions

- Rec-15 Develop recreation sites and facilities needed to accommodate users, facilitate recreational uses of public lands, and protect resources.
- Rec-21 Design facilities to be compatible with the local landscapes and recreation experience.
- Rec-28 Provide information regarding recreation opportunities, interpretation of natural and human history, and specific rules and regulations pertaining to use of public lands to visitors.

Visual Resources

Goals and Objectives

- Plan, modify, and implement resource management activities in a manner that would minimize impacts on visual resources.