

**United States Department of the Interior
National Park Service
Bureau of Land Management**

**Tassi Ranch Cultural Landscape Plan
Summary**

Location:

Township 33 North
Range 16 West
Section 13
Mohave County, AZ

U.S. Department of the Interior
Grand Canyon-Parashant National Monument
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BACKGROUND

Tassi Ranch and the associated springs, an example of the historic vernacular landscape subset of cultural landscapes, is considered historically “significant for its association with the historical development of cattle ranching in the remote, arid country of the Arizona Strip; and also because the ranch house and associated structures embody the distinctive characteristics of a type, period, and method of construction.” (NPS 2013). As early as 1903, Tassi Springs has been claimed for use by sheep and cattle operations. The defined period of historical significance is 1936 to 1947, the period when Ed Yates built the majority of the extant building and ran cattle at the site.

Since the 1980s, the National Park Service (NPS) has maintained the ranch structures and worked to stabilize the site. Since 2000, Tassi Ranch is within the boundary of Grand Canyon-Parashant National Monument, jointly managed by the NPS and Bureau of Land Management (BLM). Previous work at the site has been accomplished following a variety of plans, most notably the Tassi Ranch and Springs Interim Treatment Plan (2007). Previous projects have included fence repair and stabilization (Tassi Ranch Fence Construction PEPC-17393), removal of non-historic grazing apparatus (Remove Abandoned Grazing Facilities and Rehabilitate Sites- Tassi Grazing Allotment PEPC-26819), invasive plant removal (Invasive Plant Management Plan PEPC-11501), structure repair (Stabilize Tassi Ranch Structures PEPC-25166), and native vegetation and aquatic habitat restoration (Restore Tassi Springs Native Vegetation and Rare Aquatic Animal Habitat PEPC-24556).

In 2014, the Cultural Landscape Report was finalized by NPS. This report provided a series of treatment recommendations to maintain the culturally contributing resources within the historical landscape while promoting visitor safety and biologically significant natural resources. Grand Canyon-Parashant National Monument is directed to consider this report and implement the treatment recommendations to remain in compliance with national and local goals for historic areas.

PURPOSE AND NEED FOR THE PROPOSED ACTION

The purpose of the project is to implement recommended actions from the Tassi Cultural Landscape Report, maintain viable habitat for the special status riparian and aquatic species in the project area, and provide sustainable visitor use.

The need for the project is to protect the integrity of the cultural landscape, including historic structures, modern visitor infrastructure and historically appropriate vegetation.

CONFORMANCE WITH BLM/NPS LAND USE PLAN(S)

The proposed action is in conformance with the Grand Canyon – Parashant National Monument Record of Decision and Resource Management Plan/General Management Plan (GMP/RMP), approved January 29, 2008. The RMP directs the NPS and BLM to develop “[a] site management plan for the spring, irrigation system, riparian area and ranch

structures/historic landscape... to include: [c]onservation treatments for the historic building and irrigation structures; [v]egetation management and spring restoration for ecological benefits including rare species conservation; [m]aintenance of the cultural landscape;" and "[i]nterpretation of the biological, hydrologic, and cultural features of the area, including visitor use management needs" (RMP 2008 IMPL-RP-05).

CONFORMANCE WITH STATUTES, REGULATIONS AND OTHER PLANS

This EA is being prepared in accordance with the requirements of the National Environmental Policy Act and is consistent with applicable Federal, State, and local statutes. The following list represents principle authorities and is not intended to be comprehensive.

NPS Organic Act (16 U.S.C. § 1)

National Historic Preservation Act of 1966, as amended (NHPA) (16 USC 470 et. sequential)

Archeological Resources Protection Act of 1979 (PL 96-95, 93 Stat. 712, 16 USC Section 470aa et seq. and 43 CFR 7, subparts A and B, 36 CFR)

Executive Order 13186

Secretary of the Interior's Standards for the Treatment of Historic Properties, (36 CFR Part 68)

Director's Order 28: Cultural Resource Management Guideline

NPS Management Policies 2006

2016 Conservation Agreement and Conservation Assessment and Strategy for the Relict Leopard Frog (*Rana onca* [=*Lithobates onca*])

Mohave County General Plan (revised 2005)

Arizona's State Wildlife Action Plan: 2012-2022

Endangered Species Act of 1973, as amended

PROPOSED ACTION

The proposed actions have been developed to attain the specific management goals outlined in the GMP/RMP as understood by the NPS Pacific West Region Cultural Resources Program. Included in the Proposed Action are design features and conservation measures to mitigate potential impacts.

Historic Structures/Landscape Elements (HS/LE)¹

HS/LE have been identified in the NPS Cultural Landscape Report/ Historic Structures Report (2013). Historic structures (HS) include the ranch house, shed, barn, spring boxes, stock tank, lambing pen, and fence/corral system. Landscape elements (LE) include the

¹ Historic Structures/Landscape Elements are defined as components of the historic landscape that are integral to the desired look and feel of the site from a historical perspective as determined during the NPS cultural landscape documentation process.

fields, irrigation ditches, holding ponds, ranch yard, and a row of 9 cottonwood trees along the front ranch fence.

Annually, HS would be inspected and/or repaired. Repair may include replacement of damaged or non-functioning components such as roofs, screens, fenceposts and doors. Repairs would preferentially include the use of like materials or materials constructed in such a way as to mimic the desired look of the period of cultural significance. Materials would include wood, metal, concrete, stone, plastic, canvas or other cloth, glass, and mortar. Repairs may, however, also include non-historic elements if the historically appropriate materials would 1) present a danger to the public or 2) provide a similar visitor experience while not decreasing the historical value of the site. An example of this would be replacing the screens on the ranch house with expanded metal screens for durability and to prevent visitors from accessing a potentially unstable building that may contain hantavirus.

Debris would be removed from in and around HS/LE. Debris would be defined as non-functional components of the HS/LE and modern infrastructure, vegetation (unless otherwise determined to be useful at that location such as mulch) and items that have accumulated at the site that have not been defined as HS/LE such as carpeting inside the ranch house. Organic/vegetation debris and non-historic debris would be removed first, then an archeologist would determine if any of the non-functional components of the HS/LE need to be mapped or collected for preservation before removal. Debris would be removed using several methods including hand removal, shoveling, cutting or raking. Debris would be disposed of as appropriate, for example woody debris would be hauled to Pigeon Wash and chipped and/or burned while metal and plastic debris would be hauled to a municipal waste system.

Vegetative landscape elements (LE) (i.e. cottonwood row) would be pruned by a certified arborist or under the guidance of a technical expert during the dormant season. Dead or dying LE would be replaced with like vegetation from seedlings, suckers or rooted cuttings found onsite unless a close match can be found from a similar spring-system area. Dead or dying LE would preferentially be removed during the dormant season, however replacement timing would depend on the species' requirements. Temporary watering structures may need to be placed to supplement the successful establishment of new vegetation.

Shed

The shed is considered to be a HS but it was constructed after the defined period of cultural significance. The shed has yet to be determined as eligible for listing as a National Historic Landmark. If the shed is found to not be National Historic Landmark eligible and not relevant to the integrity of the property, it may be removed.

Springbrook

The springbrook, a functioning section of an irrigation ditch, may be extended approximately 266 feet to a new breach in the existing dry non-functional section of the same irrigation

ditch. This would result in a new breach across the ranch road and springbrook that would connect with the wash approximately 200 feet further down the wash than the current breach flow. Stabilization of the springbrook and the potential new functioning section of the irrigation ditch would include removal of vegetation and substrate from the ditch and may include the addition of wood, stone, metal or concrete to prevent the ditch from breaching in an undesired location or being filled in by natural earth movement from the uphill side of the ditch. If these stabilizing elements are necessary, they would be designed to be unobtrusive and in keeping with the historic look of the site.

Fence and corral system

The fence/corral system would be maintained and repaired as needed. In general, the fence would be replaced with in-kind materials; however, sections where new barbed and smooth wire would be hung would conform to the BLM Manual H-1741-1 - Fencing for Wildlife-Friendly Fencing. The portion of the fence system (ranch core fence) around the HS already incorporates several modern modifications and will be discussed further in the “Modern Infrastructure” section below.

Ranch yard

In addition to debris removal, the ranch yard would be recontoured to remove the buildup of organic matter and dirt from various modern projects including the placement of French drains in the 2000s, recent flooding, most notably in 2014, and natural vegetative decay, i.e. buildup of dormant/dead layers of grass and leaves. (See “Modern Infrastructure” below for a discussion of changes to the visitor use infrastructure due to the flooding event). This buildup is causing water to pool intermittently around the structures instead of flowing toward the wash. The recontouring would remove the modern accumulation of debris and decrease the buildup of water around and in the HS and better conform to the original cleared nature of the ranch yard. Recontouring would be accomplished with a variety of equipment including heavy equipment such as a backhoe and hand tools such as shovels and rakes. Recontouring would take place under the supervision of an archeologist or his designee. The overall slope of the ranch yard would not exceed 2% and would generally slope toward the wash.

Vegetation

Annually encroaching vegetation would be removed from walkways, HS/LE and parking areas. Vegetation would also be maintained to provide open space around the ranch house, shed and barn to provide a fire barrier and to mimic the previously open ranch yard, an open vista of the adjacent Pigeon and Tassi Wash as historic photos indicate occurred during the period of cultural significance, open preexisting roads for the passage of service vehicles and the use to roads as visitor trails.

Vegetation would be treated by a variety of methods. Treatment may include mechanical (such as trimmer, brush hog, weed wacker, chainsaw, and backhoe) or manual (hand pulling,

brush blade, lopper) manipulation. Treatment may also incorporate the application of pesticides (including fungicides and herbicides). Only EPA approved pesticides would be used according to label to control unwanted pests. Some common herbicide compounds may include the following active ingredients: Triclopyr, Imazapyr, Glyphosate, 2,4-D, and other approved compounds.

Woody debris would be hauled to Pigeon Wash and chipped or burned. Non-woody debris would either be added to the woody debris pile or used as mulch to stabilize existing vegetation or landscape elements.

Vegetation treatment that is not necessary for emergency site stabilization, i.e. the water is no longer flowing in the springbrook, or is more than the removal of small amounts of vegetation to allow for traversing a previously open area would not occur during avian nesting season.

Vegetation treatment in the riparian areas would be guided by the requirements of the aquatic organisms found at the particular location. No more than 1/3 of the upper springbrook area would have vegetation removed in any one year to preserve habitat for the Grand Wash springsnail. In the lower sections of the stream in Pigeon Wash, vegetation would be maintained to provide adequate shading to protect the speckled dace found in that stretch. Non-emergency vegetation treatment would also preferably not occur in the springbrook or wherever relict leopard frog egg masses or tadpoles are found during January through April and November.

Modern Infrastructure²

The parking area would be maintained as necessary. This may include addition or subtraction of substrate (i.e. flood deposits gravel on parking area, raising the level). Substrate to add to the parking area would be preferentially taken from the contiguous wash. Substrate removed from the parking area would be deposited in the wash or may be used to repair the road (NPS Road 1213) where it crosses Pigeon Wash next to Tassi Ranch. To help minimize the flood damage to the parking area and ranch core, contouring of Pigeon Wash may occur to shift the active flood channel away from the site. This shift would move the center of the primary flood channel within Pigeon Wash further from the ranch core while not substantially changing the appearance of Pigeon Wash. This would be done in consultation with the Army Corps of Engineers and a technical expert.

Some modern infrastructure may be added to the site to help stabilize the HS/LE. Pea gravel and/or geotextile fabric would be added to the floors of the ranch house, barn and shed to aid in water drainage. Wooden or metal bracing may be added to any of the HS to stabilize the structure. Different formulations of concrete from those original to the site may be used to aid in preservation. Any modifications to the original HS/LE would be documented and

² Modern Infrastructure is defined as additions to the historic landscape for visitor use/interpretation and site stabilization/protection.

marked if appropriate (such as stamping new timbers). Short footbridges may be placed to keep visitors from walking in the springbrook or muddy areas. Bridges would not be permanent features and would be placed only on an as-needed basis. They would be constructed of wood or other composite and metal and be designed to be unobtrusive. The current French drain system would be inspected, cleaned out and augmented to increase the diversion of water from behind the ranch house shed and barn to the ranch. This would include the use of plastic drain pipe, gravel and filter fabric.

Modifications and additions would be made to the existing visitor-related infrastructure. The visitor register would be dug out of the substrate that accumulated during a flood in 2014 and replaced in the parking area. Wayside exhibits would be replaced, most likely in the same or nearby locations, to conform to the evolving story of the site and to meet accessibility standards. An additional wayside would be placed on the bluff across Pigeon Wash adjacent to the closed airstrip to provide educational information from a viewpoint where the entire ranch is visible. The ranch core fence is a mix of barbed wired fence and wooden worm fence. The barbed wire fence portion is part of the HS but has had additional wire added to it to strengthen the fence and to protect the ranch house, shed, barn and springbrook from damage by feral cattle, burros and horses. This fence would be maintained using a mix of barbed wire, metal t-posts and cedar posts; however, new gates would be placed to allow access for service vehicles. Gates would be metal or wood with some parts that may be plastic. Gates would be functional but also compatible with the historic character of the ranch. Two stiles provide access for visitors across the barbed wire sections of the fence. One would be moved out of the roadway to allow for the placement of one of the service gates. The stiles may also be replaced with a different design with a smaller footprint. The wooden worm fence, added in 1998 to complete the ranch core fence, would be replaced with a different fence design similar to split rail, still primarily wood, but more in keeping with the historic character of the site. This would incorporate a service vehicle gate similar to the gates in the barbed wire section and a visitor pass through gate.

Scientific monitoring

To monitor subsurface spring activity, including spring migration and changes in the Tassi Springs complex, up to 10 shallow wells, with 2-inch PVC casing, 15 ft deep, with a 2-foot screen would be placed using a hand auger. Wells would be located within 200-feet of current springhead locations. Borehole tillings would be produced (approximately 8 cubic ft per well) and would be dispersed near each well to minimize the appearance of artificial mounds. Maximum water removed annually would be 7.5 gallons per well. Water would be dispersed on the surface near each well head. The PVC casing would most likely be replaced every 20-30 years.

A brook size weir/flume and vault to house a datalogger to gauge water flow rates would be placed in the stream channel downstream from the main spring heads which form a perennial outflow, to monitor flow rates and provide a location for ongoing water quality testing. The

weir would be approximately 10 feet square. The weir/flume would include a surrounding concrete slab. The flume would be used by several entities including Mojave Desert Inventory and Monitoring Network, Parashant staff, and other cooperators. Approximately 1 gallon of water per year may be removed from the site for testing.

A scientific monitoring station would be placed on an embankment near open/flowing water to monitor bats attracted to the water source. The proposed instrumentation may include: anemometer, temperature, relative humidity, barometer, precipitation gauge, UV solar intensity, evaporation pans, soundscape/wildlife acoustic equipment, and air quality monitoring equipment for ozone, nitrate/sulfate deposition, haze, and air particulates. The scientific monitoring station at its largest extent would include 2 100-watt solar panels on 3-foot wide stands, and 26-foot tall tripods, each anchored via weighted footing. Total area needed would encompass an area no greater than 110 square feet. All efforts would be made to reduce the visibility of the station, including non-reflective surfaces and camouflage-type paint on instrument surfaces. The specific locations would incorporate visual impact considerations so that topography and vegetation would screen the equipment as much as possible.

Access: Access to the individual project areas would be by way of existing designated routes, using standard ½ to 1 ton trucks, and/or ATVs or UTVs.

Design Features

The following design features (DFs) are included in the proposed action to minimize potential environmental impacts from the proposed action.

- Construction would be limited to daylight hours to minimize impacts to wildlife.
- Construction activities would be limited to periods when the soil surface is dry except when construction is needed in riparian areas or areas where water is being drained.
- Disturbance to existing historic vegetation (LE) would be avoided except when vegetation disturbance is necessary for human health and safety or for maintaining the integrity of the cultural landscape.
- At no time would vehicle or equipment fluids (including motor oil and lubricants) be dumped on public lands. All accidental spills would be reported to the authorized officer and be cleaned up immediately and disposed of in an authorized disposal site, using best available practices required by law. All spills of federally or state listed hazardous materials which exceed the reportable quantities would be promptly reported to the appropriate agency and the authorized officer.
- Vehicles and equipment would be power washed off-site before construction activities begin to minimize the risk of spreading noxious weeds. This would include cleaning all equipment before entering the Arizona Strip. The project areas would be

monitored by the BLM for noxious weeds for two years following completion of the project and would be treated as needed.

- The project sites would be cleaned up at the end of each work day (e.g., trash removed, scrap materials picked up). “Waste” means all discarded matter including, but not limited to, human waste, trash, garbage, refuse, oil drums, petroleum products, ashes, and equipment.
- Any cultural (historic/prehistoric site or object) or paleontological resource (fossil remains of plants or animals) discovered within the project areas would immediately be reported to the GCPNM Manager and the GCPNM archeologist or his designee. All operations in the immediate area of the discovery shall be suspended until written authorization to proceed is issued. An evaluation of the discovery shall be made by a qualified archaeologist or paleontologist to determine appropriate actions to prevent the loss of scientifically significant cultural or paleontological values.
- If any human remains, funerary objects, sacred objects, or objects of cultural patrimony as defined in the Native American Graves Protection and Repatriation Act (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 GCPNM Manager (or designee) and the GCPNM archeologist would be immediately notified. The immediate area of the discovery would be protected until notified by the GCPNM Manager (or designee) that operations may resume.
- No hazing or harassment of wildlife is permitted.

Conservation Measures, Terms and Conditions - Desert Tortoise

The following conservation measures are contained in USFWS Biological Opinion 22410-2007-F-0463 (2007) for the RMP and are applicable to the project.

- Designate a field contact representative (FCR) who will have the authority to halt all non-emergency project activity should any danger to a listed species arise. Work will only resume after hazards to the listed species are removed.
- Authorized biologists will act as biological monitors and be present during all construction activities for the protection of desert tortoises and other listed species. These biological monitors will be responsible for determining compliance with measures as defined in the biological opinion or other agreements between the project proponent and agencies.
- Authorized activities will require monitoring of the desert tortoise population throughout the duration of the project. The appropriate level of monitoring will be developed in coordination with BLM and USFWS. To ensure desired results are being achieved, minimization measures will be evaluated and, if necessary, section 7 consultation reinitiated.

- Within DWMAs/ACECs during the tortoise active season (March 15-October 15), set a 20 mph speed limit on BLM roads.
- Limit new access routes created by the project.
- Uncontrolled domestic dogs will be prohibited from the project site and site access routes. Use of firearms, except by law enforcement officers or licensed hunters during lawful hunting activities will also be prohibited.
- No standing water as a result of project operations will be permitted.

In addition,

The areas of the project where ground disturbance would occur within tortoise habitat would be surveyed prior to ground disturbance to ensure no tortoise or tortoise burrows are within the project boundaries.

No handling of tortoises would occur. If a tortoise is found during project activities it would not be disturbed and activities would be modified until the tortoise leaves the area on its own.

Conservation Measures, Terms and Conditions – California Condor

The following conservation measures are contained in USFWS Memorandum 02EAAZ00-2016-CPA-0038 (2016), and incorporated into this project.

- If a condor occurs at the construction site, construction activities that could result in injury to condors should cease until the condor leaves on its own or until techniques are employed by permitted personnel that result in the condor leaving the area.
- Construction worker and supervisors should be instructed to avoid interaction with condors and to immediately contact the Flagstaff office of the U.S. Fish and Wildlife Service (FWS) or The Peregrine Fund personnel if condor(s) occur at a construction site. Non-permitted personnel cannot haze or otherwise interact with condors.
- The construction site should be cleaned up (e.g., trash removed, scrap materials picked up) at the end of each day that work is being conducted to minimize the likelihood of condors visiting the site.

PRELIMINARY ISSUES

Below are potential issues related to the proposed actions that have been identified by the NPS and BLM interdisciplinary team for the project.

- Impacts to contributing elements of the cultural landscape
- Disturbance to migratory birds
- Disturbance to wetland/riparian vegetation
- Disturbance to aquatic species including relict leopard frog, speckled dace and Grand Wash springsnail
- Impacts to visual resources
- Impacts to recreational use of the site

- Impacts to subsurface cultural artifacts

PRELIMINARY ALTERNATIVE DEVELOPMENT

Preliminary alternatives being considered include:

- Abandonment of site to natural forces
- Restriction of site upkeep and modification to ranch core
- No Action Alternative (continuation of current management)
- Proposed Action (implementation of the cultural landscape plan)

If additional issues are identified, additional alternatives may be developed.

Literature Cited

National Park Service Pacific West Region Cultural Resources Program. 2013. Tassi Ranch Cultural Landscape Report Historic Structures Report Grand Canyon-Parashant National Monument.

National Park Service. 1996. The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes. Cultural Landscape Guidance Documents. ISBN 978-0-16-089109-0. NPS Cultural Resource Stewardship and Partnerships. Washington, D.C.