



Categorical Exclusion Form

Project: Renovate Henry Spring to Conserve a Rare Desert Water Source

Project Number: 11-moja-007/PEPC 33105

Project Description:

Miners and cattle ranchers in the Mojave Desert developed hundreds of surface water sources wherever small seeps, lush vegetation or geologic formations indicated water close to the ground surface. Qanats, or horizontal wells dug into a hill slope, were frequently used to gain access to water. Pipes placed inside qanats would then allow the water to flow to drinkers or other locations, often miles away, using only gravity. Henry Spring is the best preserved of the "cowboy" qanats in Mojave National Preserve and serves as a relatively reliable source of water for wildlife such as quail, doves, coyotes and bobcats.

Ranchers likely developed the spring in the late 1800s by digging into the slope, eventually excavating a narrow 20 foot long tunnel into the hillside to drain more groundwater. The front quarter of the tunnel was widened to facilitate collecting a pool of groundwater. Sometime in the 20th century, an approximately 50-foot long trench was backhoe-excavated outside the tunnel, facilitating gravity-fed water to flow to two tanks and a trough in a nearby corral. Henry Spring reliably provided water for approximately 100 head of cattle with a flow rate of approximately one gallon per minute. The trench walls were, nonetheless, left overly-steepened by the backhoe resulting in substantial erosion. Currently, the source of the water is sequestered at the end of an excavated, steep-walled and eroding tunnel in an eight foot deep basin. Despite the addition of a structure made of railroad ties designed to protect the tunnel entrance, imminent collapse of this opening due to erosion now threatens the continuation of water availability at Henry Spring. Should the well entrance and tunnel collapse completely, groundwater may no longer reach the surface and one more reliable desert spring will have been lost.

In addition, the corral adjacent to the spring was used as a watering station for cattle from the time the well was originally excavated up until 2001. Indeed, the corral and well are considered contributing elements to the eligibility of the Rock Springs Land & Cattle Company Historic District for listing on the National Register of Historic Places. The congregation of cattle around the corral and spring over the long-term has unfortunately resulted in substantial compaction of the soils and removal of the vegetation just upslope from the site. This resulted in the creation of what has been termed a piosphere -- that is, a disturbance gradient which radiates out from the corral site. Disturbances of this type are typical for watering sites and corrals used in grazing management where the scale of the disturbance lessens with increasing distance away from the site. In the immediate vicinity of Henry Spring native vegetation has largely been extirpated leaving bare, heavily compacted and eroded soils. This project will result in the disturbed area being recontoured to match the undisturbed landscape and to redirect drainage away from the corral and qanat and replanting the recontoured area with native plant seed typical of the surrounding area through hydro-seeding. This plant seed has been collected from within Mojave National Preserve in anticipation of this restoration project.

Project Locations:

Location

County:	San Bernardino	State:	CA
District:		Section:	Henry Spring
Geo. Marker:		Other:	11S 603375.53 m E 3908598.21 m N

Mitigation(s):

- No mitigations identified.

Describe the category used to exclude action from further NEPA analysis and indicate the number of the category (see Section 3-4 of DO-12):

E.2 Restoration of noncontroversial native species into suitable habitats within their historic range and elimination of exotic species.

Mojave National Preserve staff has completed an interdisciplinary review of the proposed action. Henry Spring is not in desert tortoise habitat and does not have tortoise sign. The restoration work should create and enhance the local habitat. It will stabilize the site and promote natural recovery of vegetation communities that provide forage and cover to wildlife. It is critical to understand and follow the natural drainage flows of the landscape in order to promote the successful restoration of the area. The restoration work and post-project monitoring will provide valuable information for park management. Reviewers did not identify potentially significant adverse impacts to the natural and cultural resources of Mojave National Preserve. Impairment is not expected to result from the implementation of the proposed action. Therefore, the restoration of Henry Spring, as described herein, does not require any further review under the National Environmental Policy Act and may proceed, as scheduled.

On the basis of the environmental impact information in the statutory compliance file, with which I am familiar, I am categorically excluding the described project from further NEPA analysis. No exceptional circumstances (e.g. all boxes in the ESF are marked "no") or conditions in Section 3-6 apply, and the action is fully described in Section 3-4 of DO-12.

Signature

Superintendent: (Acting) David H. Larson Date: 02/07/2011

NPS Contact: [Signature] Date: 03 February 2011