

ENVIRONMENTAL ASSESSMENT, FONSI AND DECISION RECORD

**BLM, Bishop Field Office
351 Pacu Lane, Suite 100
Bishop, CA 93514**

EA Number: CA-170-06-18

Lease/Serial/Case File No.: Paiute Spring Prescribed Burn

Proposed Action Title/Type:

Paiute Spring Prescribed Burn and Spring Snail Habitat Assessment Project

Location of Proposed Action:

Spring is located ½ mile east of White Mtn. Estates off of Highway 6 in Mono County, California. T. 5S, R. 33E, Sec. 23. Benton Management Area.

Applicant (if any): BLM, Bishop Field Office

Plan Conformance:

The proposed action is subject to the Bishop Resource Management Plan, approved March 25, 1993. The proposed action was developed to implement RMP guidance and is designed to ensure conformance with General Policies, Area Manager's Guidelines, Valid Existing Management, Standard Operating Procedures, Decisions and Support Needs prescribed in the Bishop RMP. The proposed action has been reviewed and is in conformance with the plan.

Need for Proposed Action:

The proposed action was developed to implement Bishop RMP (BLM, 1993) direction to protect and enhance unique or important vegetation communities and wildlife habitats - specifically, yearlong protection of Owens Valley vole and Great Basin spring snail habitats. The proposed action would implement the following RMP Decisions specific to habitat restoration.

1. Maintain or enhance habitat for endangered, threatened, and candidate species, and other species of management concern (BLM, 1993, p. 40).
2. Improve riparian vegetation condition (BLM, 1993, p. 42).

Additional RMP Decisions and Standard Operating Procedures that support the proposed action include:

1. Yearlong Protection of endangered, threatened, candidate, and sensitive plant and animal habitats (BLM, 1993, p. 17).
2. Manage candidate species, sensitive species and other species of management concern in a manner to avoid the need for listing as state or federal endangered or threatened species (BLM, 1993), p. 12).

The proposed action also meets tasks identified in the USFWS Owens Basin Wetland and Aquatic Species Recovery Plan (USFWS, 1998), specifically Task 2.1.4 – Identify and restore or enhance potentially suitable habitat for rare species that have been degraded by human activities.

Description of Proposed Action:

The proposed project is on public lands north of Bishop on U.S. Hwy. 6 in the Benton Management Area (Fig. 1). The project area spans a portion of the developed springbrook approximately 300 linear feet downstream from the spring source within a narrow canyon bounded to the south by an abandoned mill site. The project area was previously treated for a large tamarisk population in 1995. Piles of removed and treated vegetation still remain at the site. Other riparian vegetation responding to the tamarisk removal has also produced large quantities of biomass that is in a late seral state and is covering large portions of the narrow channel. The amount and position of the vegetation and piles is currently obstructing portions of the channel and recruitment potential of earlier seral vegetation (*Rorippa nasturtium-aquaticum*, water cress) that was in greater abundance, previously.

Specific actions proposed are described below.

The proposed action would entail implementing a low-intensity winter prescribed burn of the tamarisk piles and associated living and dead riparian vegetation within close proximity of the piles, i.e. an area not greater than 1000 ft². The specific area of the burn is on and adjacent to a large earthen dike that spans the channel approximately 300 ft. down slope from the spring source. Burning the dead and living plant material in this location will a) likely stimulate a more diverse assemblage of riparian vegetation, b) permit a thorough assessment of the physical integrity of the earthen dike, c) likely stimulate the growth of water cress within the channel area exposed to sunlight and d) provide a type of vegetation (water cress) that seems to have some positive correlation to the condition of habitat occupied by the resident spring snail (*Pyrgulopsis owensensis*; Hershler 1989).

Environmental Impacts:

The proposed project is not within a Wilderness, Wilderness Study Area, nor Wild and Scenic River corridor, or ACEC and there would be no effects on any lands so designated.

Air quality would not be affected. The project consists primarily of burning well-cured dead vegetative material. Smoke production from this small prescribed fire will be minimal. Prescribed fire operations will be conducted by fully-qualified Interagency fire personnel. Burning will be conducted under an approved burn plan and with close coordination with Great Basin Unified Air Pollution Control District. Burning will only be permitted on permissive burn days, as designated by the California Air Resources Board and when spot weather forecasts indicate favorable smoke dispersion.

There would be no impacts to prime farm lands, flood plains, nor water quality (including ground or surface waters).

There would be no disproportionate impacts to low income or minority groups, per Executive Order 12898 (2/11/94).

There would be no impacts to mineral resources. No mineral resources occur in the project area.

There would be no impacts to range resources. The project area is not within a grazing allotment.

There would be no impacts to recreational resources. Public access to the site would not be restricted.

Threatened and Endangered Species

There are no known federally listed threatened or endangered species (as defined under the Endangered Species Act, 1982, as amended) or their appropriate habitat occurring within the proposed project boundary.

Cultural resources

The proposed project area was surveyed on February 2, 2006 by the Bishop Field Office archaeologists. A complete, Class III inventory was concluded. One historic site was recorded. The site appears to be associated with early (1920-30) and later water conveyance systems to supply water for agricultural and domestic needs on the valley floor. Although mining activity to the west may have also contributed to site development. Based on the historic remains, the site does not appear to possess the requisite qualities necessary to make it eligible for listing on the National Register of Historic Places. But, due to the fact that the history of site use is not well understood at

this time, a final eligibility determination will be deferred. The proposed project is located on the fringe of the site and would not affect any historic constituents that could contribute to the sites eligibility. For full detail of the cultural resources investigations for the proposed undertaking refer to; Cultural Resource Inventory Report (CRIR): CA-170-06-16.

Visual resources

The proposed project area is located within a Visual Resource Management (VRM) Class II Objective area. The objective of this class is to retain the existing character of the landscape. The level of change to the characteristic landscape would be low. Management activities may be seen from key observation points, but should not attract the attention of the casual observer. Any changes must repeat the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape.

The effects of the proposed action would be temporary, e.g 2-3 months until riparian vegetation responds to the treatment. Similar controlled burn projects have taken place in the Owens Valley in riparian vegetation and the post-fire response is rapid.

Soils and Vegetation

Soils in the proposed project area are comprised of the Yermo, stony-Yermo complex characteristic of west-facing alluvial fans of the northern White Mountains. Parent material consists of alluvium derived dominantly from metasedimentary sources. These are very well drained soils with moderate to rapid permeability and low available water holding capacity.

Upland vegetation in the proposed project area is Shadscale scrub dominated by shadscale (*Atriplex confertifolia*) and budsage (*Artemisia spinescens*) with a sparse (15% or less) understory of desert needlegrass (*Achnatherum speciosum*) and Indian rice grass (*Achnatherum hymenoides*) (Barbour and Major 1977). Additional species include, but are not limited to: hop sage (*Grayia spinosa*), horsebrush (*Tetradymia canescens* and *T. axillaris*), Nevada ephedra (*Ephedra nevadensis*), winter fat (*Krasheninnikovia lanata*), yellow rabbitbrush (*Chrysothamnus naseosus*), green rabbitbrush (*Chyrsothamnus teretifolious*), gold bush (*Ericameria cooperi*), and cheesebush (*Hymenoclea salsola*). During years of high precipitation, annual forbs are abundant and include species from the following genera: Cryptantha, Mentzelia, Linanthus, Phacelia, as well as genera in the Asteraceae Family. Riparian vegetation is dominated by primarily woody species such as willows: (*Salix lutea*, *S. lasiolepis*, *S. exigua*, *S. goodingii*, *S. lucida*), and wild roses (*Rosa woodsii* var *ultramontana*), Herbaceous species are primarily comprised of goldenrod (*Solidago canadensis*), dogbane (*Apocynum cannabinum*), California loose strife (*Lythrum californicum*), (sedges (*Scirpus* and *Carex* spp.) and rushes (*Juncus* spp.). The relatively narrow riparian width that comprises the stream reach is driven by the geomorphology of alluvial fan systems.

Current impacts include hydrologic alteration of stream flow as a result of historic alterations of the stream channel during mill use, and subsequent accumulations of vegetation biomass that are hindering recruitment of earlier seral types of vegetation that would potentially benefit the spring snail population.

Implementation of the proposed action would help introduce a variety of vegetation seral states.

Invasive, non-native species

Currently no invasive weeds are known in the riparian portion of the project area. There are scattered Russian thistle (*Salsola tragus*) along the road sides, but these are not anticipated to increase since the project would be implemented pre-seed set which would limit seed dispersal risk. Post project implementation, the spring site would need to be reevaluated for any weed species that may have been inadvertently introduced as a result of the proposed action. If identified these species would be removed.

Wildlife habitat

Habitat for native wildlife species within the proposed project area is defined by the narrow width and length of the springbrook environment which extends from the point of initial spring flow downstream for a distance of approximately 0.25 miles. Overall the aquatic habitat and related riparian vegetation diversity appears to be limited due to channel gradient, bottom materials composition and limited representation of earlier seral vegetation composition.

The most ubiquitous species within the springbrook is the hydrobiid snail, *Pyrgulopsis owensensis*. The species is found throughout the permanently inundated channel. Habitat for spring snails, in general, follow the characteristics of permanent channel flow, good water quality, a sand or gravel substrate and aquatic vegetation where water velocities are moderate (approximately 0.33 fps; Sada, 1994). Like other species of endemic hydrobiids, *Pyrgulopsis owensensis* is known to occur in only a few spring-fed aquatic systems within the Owens River drainage. Of those locations, all but one site has been moderately to extensively altered by human activities, historically.

Other species dependent, in part, on the springbrook habitat include some assemblage of aquatic macroinvertebrates and terrestrial insects, California quail (*Lophortyx californicus*), various migratory songbird species, and mammal species ranging in size from rodents to mule deer (*Odocoileus hemionus*). The springbrook environment appears to be sufficiently complex in microhabitat conditions that the Owens Valley vole may be present. The extent to which bird and mammal species utilize the riparian area is unknown. The California quail is typically the most common species of bird noticed in this area.

The springbrook has been moderately modified by historic mill site activities which included water diversion, dike construction, return of mine waste into the lower channel and placement of a diversion pipe(s) near the spring source. The natural erosive action of the slope on the north side of the channel contributes to some slight alteration of habitat over time.

Implementation of the proposed action would likely positively contribute to localized habitat conditions for the spring snail through exposing part of the channel to sunlight, a likely increase in the abundance of watercress and alga and a greater diversity of riparian vegetation which may influence microhabitat diversity within the channel. Aquatic macroinvertebrates, terrestrial insects, bird and small mammal species should receive benefit of the action through a greater diversity of microhabitat conditions.

Cumulative effects

Cumulative effects are direct or indirect effects that result from an action when considered with other past, present and reasonably foreseeable future actions of the agency and other agencies or private parties.

The limited scale and magnitude of the proposed action and associated environmental impacts significantly reduces the probability of negative cumulative effects associated with project implementation. The proposed action would not contribute to negative cumulative effects to the human environment or resource values in, or adjacent to the proposed project vicinity. The burning of dead and some living vegetation in the vicinity of the earthen dike spanning the channel will improve riparian species diversity which is expected to positively benefit wildlife species, particularly quail and migratory songbirds.

Description of Mitigation Measures and Residual Impacts:

The following protective measures will be incorporated in the proposed restoration project to reduce the probability of residual impacts and the need for subsequent mitigation:

1. If any late discoveries of previously unrecorded archaeological remains occurs no burning will be allowed in that location and the Bishop Field Manager and Archaeologist immediately notified.
2. The wooden feature (flume) located west of proposed project area will be flagged and protected from any spill-over effect from the prescribed burn.
3. The riveted pipeline located south of the proposed project area, and adjacent to the road, will be flagged and protected from any spill-over effect from the prescribed burn as well as vehicle activity in the area.

4. Vehicular access to the proposed project area would occur on an existing road/vehicle track.
5. All vehicles, tools and material used pre and post project implementation would be pressure-washed prior to transport to the project site to avoid the spread of noxious weeds.
6. Surveys for invasive weed infestations would be completed prior to and the completion of the project. If any invasive weeds are identified within or adjacent to the project areas, the weeds would be removed to reduce the risk of an invasive soil seed bank developing.
7. All improvements required for project implementation would be limited to the least intensive method required to meet project objectives.
8. A training session would be provided to all fire personnel to educate them on avoidance and minimization measures to protect sensitive species and their associated habitats.
9. Biological monitors would be present at the project site during construction-related activities

Implementation Monitoring:

Bishop Field Office Wildlife Biologist would direct and monitor project implementation to ensure conformance with project design and implementation requirements identified in the proposed action.

Effectiveness Monitoring:

Post project monitoring would be conducted annually to assess the effectiveness of the proposed project at meeting project objectives. Key elements that would be assessed would include an increase in the amount and spatial distribution of early seral vegetation. Wildlife species and/or habitat elements to be assessed would include channel bottom physical characteristics and spring snail distribution/abundance within the project area along with upstream and downstream locations. Other aquatic macroinvertebrates will be cataloged within the sampling. The small size of the proposed project area would prohibit any meaningful assessment for vertebrate species.

Monitoring report(s) would be attached to the original copy of this document.

Public Input:

The project has been posted on our Field Office web site and will be announced in our local newspaper the Inyo Register.

Persons/Agencies Consulted:

California Native Plant Society, Bristlecone Chapter (CNPS)
Eastern Sierra Audubon Society

References:

Barbour, M.G., Major J. 1977. Terrestrial Vegetation of California. John Wiley and Sons. Pages 853-854.

Bureau of Land Management. 1993. Bishop Resource Management Plan Record of Decision. U.S. Department of the Interior, Bureau of Land Management, California State Office, Sacramento, CA

Hershler, R., 1989. Springsnails (Gastropoda: Hydrobiidae) of Owens and Amargosa River (Exclusive of Ash Meadows) Drainages, Death Valley System, California-Nevada. Proc. Biol. Soc. Wash., 102(1): 176-248.

Sada, D. 1994. Using Native Mollusks to Monitor Effects of Ground Water Use for Mining on Spring-fed Aquatic Habitats in Northern Nevada. Unpublished. 7pp.

U.S. Fish and Wildlife Service. 1998. Owens Basin Wetland and Aquatic Species Recovery Plan, Inyo and Mono counties, California. Portland, Oregon.

Preparer(s):

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Kirk Halford, Archaeologist
Dale Johnson, Fuels Planner

Date:

Reviewed By: _____ **Date:** _____
Terry Russi, Environmental Coordinator

FINDING OF NO SIGNIFICANT IMPACT/DECISION RECORD

I have reviewed this environmental assessment including the explanation and resolution of any potentially significant environmental impacts. The Paiute Spring Prescribed Burn and Owens Speckled Dace Refuge Assessment Project has been designed to incorporate protective measures and implementation requirements that substantially reduce the potential for significant environmental impacts and no additional mitigation measures are required. I have determined that the proposed action with the mitigation measures described below would not have any significant impacts on the human environment and that an EIS is not required.

There would be no negative effect on threatened or endangered species as a result of the action.

The proposed project is also consistent with conservation strategies identified in the USFWS Owen Basin Aquatic Species Recovery Plan (USFWS, 1998).

I have determined that the proposed project is in conformance with the Bishop Resource Management Plan, which was approved March 25, 1993. This plan has been reviewed, and the proposed action conforms with the land use plan terms and conditions as required by 43 CFR 1610.5.

It is my decision to implement the project with the mitigation measures identified below.

Mitigation Measures/Remarks:

The following protective measures would be applied during restoration project implementation to reduce the probability of residual impacts and the need for subsequent mitigation:

1. If any late discoveries of previously unrecorded archaeological remains occurs no burning will be allowed in that location and the Bishop Field Manager and Archaeologist immediately notified.
2. The wooden feature (flume) located west of proposed project area will be flagged and protected from any spill-over effect from the prescribed burn.
3. The riveted pipeline located south of the proposed project area, and adjacent to the road, will be flagged and protected from any spill-over effect from the prescribed burn as well as vehicle activity in the area.

4. Vehicular access to the proposed project area would occur on an existing road/vehicle track.
5. All vehicles, tools and material used pre and post project implementation would be pressure-washed prior to transport to the project site to avoid the spread of noxious weeds.
6. Surveys for invasive weed infestations would be completed prior to and the completion of the project. If any invasive weeds are identified within or adjacent to the project areas, the weeds would be removed to reduce the risk of an invasive soil seed bank developing.
7. All improvements required for project implementation would be limited to the least intensive method required to meet project objectives.
8. A training session would be provided to all fire personnel to educate them on avoidance and minimization measures to protect sensitive species and their associated habitats.
9. Biological monitors would be present at the project site during construction-related activities

Authorized Official: _____
Bill Dunkelberger, Field Office Manager

Date: _____