United States Department of the Interior

Bureau of Land Management
Needles Field Office
1303 South U.S. Highway 95
Needles, CA 92363
www.ca.blm.gov/needles

January 14, 2009

In Reply Refer To:
4100(P)
GR 09009
(CA-690.01)

Dear Reader:

The Bureau of Land Management (BLM) Needles Field Office announces the release of the Valley Wells Allotment Final Plan Amendment, environmental assessment (EA) and associated Finding of No Significant Impact (FONSI) for a 30-day protest period. The plan amendment would withdraw livestock grazing from the entire 223,000-acre allotment located in eastern San Bernardino County. An amendment to the California Desert Conservation Area (CDCA) Plan is required because removal of grazing from this allotment does not conform to the CDCA Plan. The protest period will close on February 17, 2009

Written protests should be sent to the Needles Field Office, attention Valley Wells Allotment Final Plan Amendment, at the address cited on the letterhead above and must be postmarked on or before the closing date. Protests may also be submitted via e-mail at ca690@ca.blm.gov and must be received by or before February 17, 2009. The Final Plan Amendment will also be posted on our website at: www.ca.blm.gov/needles.

Before including your address, phone number, e-mail address, or other personal identifying information in your protest, you should be aware that your entire comment – including your personal identifying information – may be made publicly available at any time. While you can ask us in your protest to withhold your personal identifying information from public review, we cannot guarantee that we were able to do so. The Bureau of Land Management will not, however, consider anonymous protests. All submissions from organizations or businesses, and from individuals identifying themselves as representatives or officials of organizations or businesses, were available for public inspection in their entirety.

Should you have any questions or need additional information about the Final Plan Amendment, please contact George R. Meckfessel, Planning and Environmental Coordinator, at 760-326-7008.

Sincerely,

Mike Ahrens
Acting Field Manager

Enclosure

Final Amendment to the California Desert Conservation Area Plan to Devote the Valley Wells Allotment to a Public Purpose Which Precludes Livestock Grazing

Environmental Assessment
CA-690-EA09-01

January 2009

United States Department of the Interior
Bureau of Land Management
Needles Field Office

1: INTRODUCTION

1.1 Background

Administration of the Valley Wells Allotment is addressed in the California Desert Conservation Area (CDCA) Plan (BLM 1980), as amended by the Northern and Eastern Mojave Desert Management (NEMO) plan amendment (BLM 2002), herein incorporated by reference. The NEMO plan amendment prescribes two management strategies for this grazing allotment, one for those areas found inside the Desert Wildlife Management Area (DWMA) and one for those areas found outside the DWMA. A DWMA is an area dedicated to recovery of the federally threatened desert tortoise (*Gopherus agassizii*); DWMAs are designated as Areas of Critical Environmental Concern (ACEC). Approximately 55% of the allotment is inside the Shadow Valley DWMA and 45% is outside the DWMA. The boundary that defines the Shadow Valley DWMA within the Valley Wells Allotment (Appendix A) is approximately 50 miles long.

Forage allocations were established by the CDCA Plan and the NEMO plan amendment:

Kind of livestock: Cattle
Grazing application received: 05/11/07
Forage base: Perennial
Range Condition: Fair
Trend: Stable
Shadow Valley Desert Wildlife Management Area (DWMA): 114,060 acres
Public Lands Outside DWMA: 86,586 acres
Public Lands Inside DWMA: 107,072 acres

All of the permitted use (forage production available to the lessee) for the grazing authorization is associated with public lands administered by the Bureau of Land Management (BLM).

The Valley Wells Allotment has not been grazed by livestock since the 2003-2004 grazing period, when the current lease holder acquired the lease.

A five-year term grazing permit was issued to a previous lessee in 1999. In 2003, BLM issued a Final Grazing Decision to the current lessee implementing the prescriptions in NEMO plan amendment. The base property associated with the Valley Wells Allotment was sold in February 2004. In May 2007 the current lessee submitted a request for relinquishment of grazing preference and requested that the entire allotment be retired. An environmental assessment entitled Valley Wells Allotment Grazing Relinquishment for Habitat Conservation CA-690-EA08-28 (July 2008) addressing this request generated public support for discontinuing cattle grazing throughout the allotment.

Based upon close review of the NEMO Plan amendment and following further analysis of the proposed action and its alternatives, BLM issued a revised EA and proposed CDCA plan amendment for a 30-day comment period on November 17, 2008.

The fallback Rangeland Health Standards and Guidelines for Livestock Grazing remain in effect until the California Desert District Standards and Guidelines are approved by the Secretary of the Interior. Rangeland Health Standards Assessments were conducted in 1999 and the determination of meeting the standard was signed in 2000.

Rangeland Health Standard	Meets/Does not meet Standard	Impacts from Livestock? (Yes or No)
Soil Permeability	Meets	No
Riparian/ Wetland	Meets	No
Stream Morphology	NA	NA
Native Species	Meets	No

1.2 Purpose and Need for the Plan Amendment

The purpose of the proposed action is to withdraw all of the allotment from livestock grazing and to allocate forage for wildlife use [(43 Code of Federal Regulations 4110.4-2(b)]. This requires an amendment to the CDCA Plan.

The proposed action is needed to support recovery of the desert tortoise. Approximately half of the allotment is within the DWMA. Most, but not all, of the DWMA contains critical habitat of the desert tortoise (*Gopherus agassizii*), designated by the U.S. Fish and Wildlife Service (USFWS). The desert tortoise recovery plan is explicit in noting that grazing by large introduced ungulate species (cattle, horses, mules, and burros) is incompatible with recovery of the desert tortoise (USFWS 1994).

Additionally, removing the introduced grazing species, cattle, from the Valley Wells Allotment is consistent with the NEMO plan amendment prescription removing the other introduced grazing species, burros, from the Valley Wells Allotment.

Further benefits to the BLM sensitive Rusby's desert mallow (*Sphaeralcea rusbyi* ssp. *eremicola*) and the Mojave fringe-toed lizard (*Uma scoparia*) would also be realized by removal of cattle grazing from the species' habitats.

1.3 Scoping and Issues

A Notice of Intent (NOI) to amend the CDCA Plan was published in the Federal Register October 1, 2008, pages 144-145. Three respondents provided comments during the 30-day NOI scoping period. In accordance with the NOI, issues identified during the scoping period are placed in the comment categories below.

1. Issues to be resolved in the plan amendment

   No comments applicable to this category were received.

2. Issues to be resolved through policy or administrative action

   One commenter requested information on the wildlife and water sources that would be affected. The information requested by the commenting state agency was provided.

3. Issues beyond the scope of this plan amendment

   One commenter requested BLM's due consideration of continued motorized access to the portions of the allotment that are outside of wilderness. The Plan Amendment's three alternatives do not include any changes to existing open routes of travel.

   One commenter opposed removal of water sources relied upon by wildlife. The Plan Amendment's three alternatives do not include changes to existing water sources.

1.4 Preliminary Planning Criteria

Planning Criteria are the constraints or ground rules that guide and direct the development of the plan amendment. They ensure that the plan amendment is tailored to the identified issues and ensure that unnecessary data collection and analyses are avoided. They focus on the decisions to be made in the plan amendment and achieve the following:

1. developing the plan amendment in compliance with Federal Land Policy and Management Act, all other applicable laws, regulations, executive orders, and BLM supplemental program guidance;

2. developing an environmental assessment (EA) in the planning process that will comply with National Environmental Policy Act standards;
3. initiating government to government consultation, including tribal interests;

4. incorporating by reference the Standards for Rangeland Health and Guidelines for

Livestock Grazing Management into the plan amendment/EA;

5. complying with Appendix C of BLM's Planning Handbook (H 1601-1) in making resource specific determinations;

6. assuring that the plan amendment is compatible, to the extent possible, with existing plans and policies of adjacent local, State, Tribal, and Federal agencies; and,

7. considering the extent to which the plan amendment achieves the recovery goals outlined in the Desert Tortoise (Mojave Population) Recovery Plan and the NEMO amendment to the CDCA Plan.

1.5 Planning Process

Relationship to BLM laws, regulations and plans
Authority

Authority for the proposed action includes Federal Land Policy and Management Act of 1976 [43 United States Code (U.S.C.) 1701 et seq.] as amended by the Public Rangelands Improvement Act of 1978 (43 U.S.C. 1901 et seq.); the Taylor Grazing Act of 1934 as amended (43 USC 315, 315a through 315r); and the Public Rangelands Improvement Act of 1978 (43 U.S.C. 1901 et seq.). Public land orders, executive orders, and agreements authorize the Secretary to administer livestock grazing on specified lands under the Taylor Grazing Act or other authority as specified.

Regulatory Relationships

1. Livestock Grazing:

Title 43 Code of Federal Regulations (CFR) 4100 implement the authorizing statutes cited above.

2. State Historic Preservation Officer Protocol Amendment for Renewal of Grazing Leases:

Applicable to the No DWMA Grazing Alternative and the No Action Alternative

The State Director and the State Historic Preservation Officer (SHPO) amended the State Protocol Agreement between California Bureau of Land Management and the California State Historic Preservation Officer with the August 2004 Grazing Amendment, Supplemental Procedures for Livestock Grazing Permit/Lease Renewal. This amendment allows the renewal of existing grazing permits prior to completing all NHPA compliance needs as long as the State Protocol direction, the BLM 8100 Series Manual

Guidelines, and specific amendment direction for planning, inventory methodology, tribal and interested party consultation, evaluation, effect, treatment, and monitoring stipulations are followed (see Appendix III).

3. 2005 CDCA Biological Opinion

Applicable to the No DWMA Grazing Alternative and the No Action Alternative

Pursuant to 50 CFR 402, BLM would ensure compliance with the incidental take statement of the biological opinion (BO) on the CDCA Plan as amended. BLM would immediately report any injuries or mortality to desert tortoises as a result of grazing to USFWS. BLM and USFWS would review the circumstances to determine if any additional protective measures are required. BLM would compile any instances of take of the desert tortoise due to grazing activities and report annually to USFWS. If the annual level of take reaches five desert tortoises for all allotments in the NEMO and Northern and Eastern Colorado Desert plan amendment areas, BLM would meet with USFWS to determine if reinitiation of consultation is necessary for the grazing aspect of the NEMO plan amendment.

Plan Conformance

Neither of the action alternatives conforms to the CDCA plan or its amendments. Therefore selection of one of these alternatives would require a plan amendment. The no action alternative is in conformance with the CDCA Plan as amended.

1. Collaboration and Coordination

a. Intergovernmental, inter-agency and tribal relationships

California State Lands Commission

The California State Lands Commission (CSLC) authorized the assignment of a General Lease - Grazing Use, No. PRC 6840.2, to the BLM Valley Wells Allotment lessee on February 2, 2004. The lease covers approximately 12,468 acres of lands administered by the CSLC within the Valley Wells Allotment.

Following a decision by the BLM that allows withdrawal of the allotment from livestock grazing, the lessee intends to submit a fully executed lease quit claim to the CSLC which will in turn finalize the transaction.

San Bernardino County

Administration of the 3,940 acres of private land in the allotment is subject to

conformance with San Bernardino County's General Plan Open Space and Safety provisions, and ordinances.

County of San Bernardino 2007 General Plan: VI. Open Space Element (private land), 1. Relationship to other Elements of the General Plan, B. Countywide Goals and Policies of the Open Space Element, Goal OS 4.3 provides "On open space lands maintained by the County, grazing may be considered as part of an overall management strategy where this use is consistent with the purpose of the open space lands" and VIII. Safety Element, B. Goals and Policies of the Safety Element, Goal S 4.3 provides "Tailor grading, land clearance, and grazing to prevent unnatural erosion in erosion susceptible areas."

San Bernardino County Ordinance 2933 Section 32.071(a) Stray Livestock provides that "it shall be unlawful for any person owning, or controlling possession of cattle, sheep or any other livestock, to willfully or negligently permit any such livestock to stray upon or remain unaccompanied by a person in charge or control thereof upon any private or public property located within the County of San Bernardino outside the grazing areas described in subsection (c). Subsection (c) includes Eastern County Allotments containing the Valley Wells Allotment."

Tribal relationships

On October 7, 2008, BLM initiated government-to-government consultation with the Fort Mojave Indian Tribe, Chemehuevi Indian Tribe, Colorado River Indian Tribes, Las Vegas Band of Paiute Indians, and the Pahrump Paiute Tribe regarding the proposed action and alternatives.

b. Other stakeholder relationships

Others stakeholders consist of nearby public lands grazing permit holders.

2. Related Plans

The County of San Bernardino 2007 General Plan's Open Space and Safety provisions relating to grazing apply to private lands in the allotment.

3. Policy

No policies or decisions existing prior to the plan amendment proposal would influence the decision or constrain the alternatives, or would be needed to understand management of the area.

4. Overall Vision

The overall vision of the plan amendment is to support recovery of the desert tortoise.

2: PROPOSED ACTION AND ALTERNATIVES

2.1 Proposed Action: No Grazing Alternative

The proposed action would amend the CDCA Plan to withdraw livestock grazing from the entire Valley Wells Allotment and to allocate its allocated forage for wildlife use.

No grazing has occurred on this allotment since the 2003-2004 grazing period. The current holder of the preference and grazing lease has voluntarily relinquished the lease and the preference. This allotment would no longer be grazed by livestock.

The range improvements located in the allotment would be assessed to determine whether they should be retained for their cultural resource or wildlife value, abandoned, or removed. Cattle guards would be modified to prevent entrapment of desert tortoise. Activities associated with the disposition of range improvements would be subject to separate environmental review.

2.2 No DWMA Grazing Alternative

The No DWMA Grazing Alternative would amend the CDCA Plan to allow grazing of the non-DWMA portion of the allotment by a qualified applicant while making the DWMA portion of the allotment unavailable for grazing. If grazing occurs on the non-DWMA lands, it would be administered in conformance with the NEMO plan amendment.

The portion of the Valley Wells Allotment outside the Shadow Valley DWMA would conform to the management strategies necessary to maintain or achieve rangeland health standards.

Prior to authorizing a qualified applicant to graze outside the DWMA, an allotment management plan (AMP) addressing the development of sufficient water sources for livestock distribution, fencing of a spring, and the construction of approximately 50 miles of fence to prevent livestock entry from the non-DWMA area into the DWMA would be developed. Installation of such a fence is beyond the scope of this environmental assessment and would be analyzed under a separate environmental review. Coordination with the National Park Service (NPS) Mojave National Preserve (MNP) would be needed to devise means to prevent cattle drift from the MNP Clark Mountain Division grazing allotment.

2.2.1 Livestock Numbers and Season of Use (Mandatory Terms and Conditions)

Allotment Name	Allotment Number	Number of Livestock	Class	From	To	AUMs
Valley Wells	9009	131	Cattle	03/01	02/28	1,572 Active

Note: based on estimate of BLM lands outside DWMA (86,586 acres; 45%) X (4,656 active AUMs) = 2,095 AUMs; taking into account the influence of slope, distance to water and surrounding terrain that ~75% is available (2,095 X 0.75) yields 1,572 AUMs

Only one existing range improvement, a developed spring in the far north of the allotment, would remain in potential use. All other range improvements in the DWMA portion of the allotment would no longer be available for use by livestock. For the non-DWMA portion of the allotment to be a viable grazing allotment, additional water development would be needed. Potential future water development is beyond the scope of this environmental assessment, and would therefore be considered under separate environmental review.

The range improvements in the DWMA would be assessed to determine whether they should be retained for their cultural resource and wildlife values, abandoned, or removed. Activities associated with removal of range improvements would be subject to separate environmental review.

2.2.2 Livestock Management (Other Terms and Conditions)

Pursuant to 43 CFR 4100, all permits and leases shall be made subject to cancellation, suspension, or modification for any violation of these regulations or of any term or condition of the permit or lease, and permits and leases shall incorporate terms and conditions that ensure conformance with subpart 4180 (Fundamentals of Rangeland Health).

Should livestock grazing be authorized for the portion of the allotment outside the DWMA, the following terms and conditions would be required to conform with statutes and regulations, and the NEMO Plan amendment:

Desert Tortoise

1. Utilization of key perennial forage species (see Chapter 3, Vegetation, Affected Environment) would not exceed 40 percent. No averaging of utilization data among perennial key forage species or key areas would occur. When utilization approaches

authorized limits in any key area, steps would be taken to redistribute or reduce cattle use for that key area.

2. Cattle would be evenly dispersed throughout the area of use, and herding would be limited to shipping and animal husbandry practices. Grazing use would be managed according to grazing regulations, allotment management plans, the CDCA Plan as amended, and the 2005 CDCA BO. Feeding of roughage such as hay, hay cubes, or grains to supplement forage quantity would be prohibited. Grazing would be curtailed to protect perennial plants during severe or prolonged drought; this may include removal of cattle or, where feasible, turning off water at troughs to reduce adjacent grazing use.

3. Cattle carcasses found within 300 feet of any road would be removed and disposed of in an appropriate manner. No prior notification to the BLM would be necessary if vehicle use is required outside of wilderness, but permission from the authorized officer would be required to remove livestock within wilderness by use of motorized or mechanized equipment.

4. In desert tortoise habitat, authorization to use temporary, non-renewable perennial forage above permitted grazing use would be for no longer than three-month increments.

5. Authorization for ephemeral forage (annual grasses and forbs) in non-DWMA desert tortoise habitat would occur when 230 pounds or more by air-dry weight per acre of ephemeral forage is available. Ephemeral production data would be collected when necessary if requests are made for ephemeral grazing use. Any cattle authorized to use ephemeral forage would be removed whenever the allowable utilization threshold is met.

6. Construction and maintenance of range improvements in desert tortoise habitat would be limited to the existing and proposed facilities listed in the NEMO Plan amendment and as detailed in biological opinions 1-6-92-F-19 and 1-8-94-F-17. Proposed range improvement projects would be subject to NEPA compliance and to ESA section 7 consultation as needed.

The incidental take statement of the 2005 CDCA BO does not extend to specific range improvements that BLM would authorize on a case-by-case basis. For all such construction, operation, and maintenance of range improvements involving soil surface disturbance in desert tortoise habitat, the following requirements would apply:

i. Surface disturbance during construction of range improvements would occur on previously-disturbed sites and/or would be minimized wherever possible. Routine vehicle use would be limited to existing roads and disturbed areas, and off-the-road vehicle activity would be minimized. Construction of new roads would be minimized.

Construction of new or replacement facilities would be carried out only from October 15 to March 15, unless specifically authorized because of safety or emergency considerations. After completion of a project, the disturbed soil would be blended and contoured into the surrounding soil surface.

ii. To reduce attraction of desert tortoise predators, debris and trash from construction or maintenance of a facility would be removed immediately.

iii. Range improvement construction, operation, and maintenance would be modified as necessary to avoid direct impacts to the desert tortoise and its burrows such that construction of fences or pipelines would avoid desert tortoise burrows. Preconstruction desert tortoise surveys of project sites would be conducted by a qualified biologist. Existing access and areas of disturbance would be utilized when trenching a section of new pipe or during performance of maintenance. Any hazards to the desert tortoise that may be created (such as auger holes and trenches) would be monitored by a biological monitor at least twice daily to determine if desert tortoises have become trapped. These hazards would be eliminated before workers leave the site each day.

iv. Prior to ground-disturbing activities, a field contact representative (FCR) would be designated to ensure compliance with protective measure stipulations for the desert tortoise and would be responsible for coordinating with BLM. The FCR would have the authority and responsibility to halt activities in violation of BLM stipulations.

v. Only authorized personnel would be permitted to handle desert tortoises. If construction or maintenance of range improvements endangers the life of a desert tortoise, then an authorized biologist may move the animal a short distance away or hold the animal overnight to release it in the same area the next day.

vi. All construction and maintenance workers would strictly limit their activities and vehicles to areas flagged or cleared by persons authorized by BLM. When equipment off-road use is required, the lessee would notify BLM at least two working days prior to construction or maintenance.

Proposed Regional Standards for Public Land Health and Guidelines for Grazing
Implementation of regional standards for public land health and guidelines for grazing management in the NEMO plan amendment area would not occur until the Secretary of the Interior approves them. Until that time, the nationally developed fallback standards and guidelines would continue as the basis for public land health. The terms and conditions listed below are the regional guidelines for grazing management that would be applicable to the lessee.

7. Natural water sources developed as range improvements would be modified and maintained to ensure that there is no excessive loss of water.

8. The lessee would place supplements a minimum of 0.25 miles from any natural water source, such as wetlands, riparian areas, and springs.

9. In years when weather results in extraordinary conditions, BLM may require the lessee to modify grazing to allow seed germination, seedling establishment, and reproduction of native plants.

10. During prolonged drought BLM would require the lessee to reduce stocking rates.

11. When utilization levels of 25% are met or exceeded, the lessee would be required to remove livestock from key areas.

b. 2005 CDCA BO

12. To reduce attraction of desert tortoise predators, debris and trash from maintenance of a facility would be contained and removed immediately.

13. The lessee would notify BLM prior to any surface-disturbing activities.

14. Handling of the desert tortoise by the lessee would be prohibited.

15. By signing the lease, the lessee would acknowledge receipt of provided information on the desert tortoise and its conservation, its status, the protection it receives under ESA, and the actions that should be taken to avoid killing or injuring desert tortoises when working in the desert.

16. The lessee would be required to notify BLM immediately upon any instance of "take" (defined as " by the Endangered Species Act Section 3(18) as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in any such conduct); "harass" includes disruption of breeding, feeding, or sheltering of a desert tortoise.

17. The lessee would be required to contact BLM immediately if a desert tortoise is injured or killed by grazing-related activity. Grazing may continue pending a review of the incident by BLM and USFWS provided all other stipulations of the lease have been followed.

c. Other Management

General

18. Maintenance of range improvements would be the responsibility of the lessee.

19. Submission of actual use reports would be required within 15 days after the end of the grazing authorization. Actual use reports would be required to provide detailed location and number of livestock.

Fallback Guidelines

The terms and conditions listed below are the national fallback guidelines that would be applicable to the lessee.

20. Natural water sources developed as range improvements would be modified and maintained to ensure there is no excessive loss of water.

21. During prolonged drought the BLM would require the lessee to reduce stocking rates.

22. The BLM may require the lessee to modify grazing to allow seed germination, seedling establishment, and reproduction of native plant species.

23. Grazing on designated ephemeral (annual and perennial) rangeland would be allowed to occur only if reliable estimates of production have been made, an identified level of annual growth or residue to remain on site at the end of the grazing season has been established and adverse effects on perennial species are avoided (see DWMA terms and conditions).

Motorized or mechanized vehicles and/or equipment in wilderness

The lessee and his agents would be issued specific authorization for the use of motorized or mechanized vehicles and/or equipment in wilderness. The lessee would be required to carry a copy of the access authorization letter when using motorized or mechanized vehicles or equipment within wilderness to complete repair and maintenance activities. All motorized vehicle travel would be restricted to routes that existed prior to the passage of the California Desert Protection Act (CDPA). Use of routes that have been restored would not be permitted except in cases of emergency.

24. Motorized vehicles would only be used when activities can be reasonably and practically accomplished on horseback or foot. The lessee and his agents would be encouraged to make every effort to avoid traveling along the routes during periods of inclement weather.

25. Motorized and/or mechanized vehicles would be limited to no larger than a

pickup truck and trailer. Any larger vehicle would require prior written approval by the authorized officer.

26. The lessee and his agents would be required to make every effort to access wilderness during periods when impacts to wilderness visitors would be at a minimum.

27. The lessee and his agents would be responsible for keeping gates locked when not in actual use.

28. The lessee and his agents would be responsible for all maintenance necessary for continued uses of authorized routes. Motorized/mechanized vehicles/equipment would not be used for routine road maintenance. Routine maintenance would be defined as that maintenance which can be completed by one to four individuals using hand tools (such as shovels, pulaskis, McClouds). Maintenance requiring the use of motorized or mechanized vehicles and equipment would require prior written approval by the authorized officer and would be subject to separate environmental review.

29. Upon completion of activities, the lessee and his agents would be responsible for:

i. Obscuring vehicle tracks visible from the wilderness boundary up to 100 feet upon exiting from the wilderness (a broom would be carried specifically for this purpose);

ii. Reporting any needed or completed repairs on the gate, barriers or fences;

iii. Reporting any needed or completed route maintenance; and

iv. Removing all effects of repair and maintenance activities, such as equipment, tools, supplies, and trash.

30. These stipulations may only be modified to meet the future needs of the lessee and his agents with approval of the authorized officer.

31. Vehicle speeds would not exceed 30 miles per hour.

32. If in an emergency it becomes necessary to use motorized and/or mechanized vehicles and/or equipment on a route that has been previously restored to a natural appearance, the lessee would be required to notify BLM as soon as possible after the emergency access occurs and would be responsible for returning the route to its pre-emergency condition.

33. At the end of each grazing year, the lessee would be required to submit a

wilderness access log report (provided by BLM) with their actual grazing use report.

Health and Safety

34. Management of the allotment would be conducted in compliance with Department of Interior policies (i.e. DOI Manual 485, Chapter 23, Public Safety and Health), San Bernardino County Environmental Health, California Occupational Safety and Health Administration, and other Federal, State, and Local agencies having jurisdiction in these areas. The lessee would be subject to periodic inspections by the BLM, and other governmental entities.

Solid and Hazardous Materials

35. The grazing lessee would comply with solid and hazardous material-related Federal, State, and local regulations and directions. Hazardous materials with a potential to spill would be required to be stored in secondary containment, and spill media would be on-hand to immediately remediate a spill. The grazing lessee would report, immediately, to the Federal Interagency Communications Center (FICC) at (909) 383-5652, releases of any material not authorized (such as waste oil). An initial written report would be provided to the authorized officer within 24 hours of an incident's discovery.

2.3 No Action Alternative

The allotment would remain available for grazing under the terms and conditions in the NEMO plan amendment. An AMP would be written prescribing grazing management. This alternative does not meet the purpose and need.

Livestock Numbers and Season of Use

Allotment Name	Allotment Number	Number of Livestock	Class	From	To	AUMs
Valley Wells	9009	388	Cattle	03/01	02/28	4,656 Active

Should livestock grazing in the allotment be authorized, the terms and conditions cited under the No DWMA Grazing Alternative would be required. Additionally, fencing of two springs would be required which would be subject to separate environmental review.

3: ENVIRONMENTAL ANALYSIS

The following elements are not present or are not affected and are not further analyzed:

Farmlands, Prime or Unique
Flood Plains
Hazardous and Solid Wastes
Health and Safety
Wild and Scenic Rivers
Wild Horses and Burros

Elements present that are analyzed:

Air Quality
Areas of Critical Environmental Concern
Cultural Resources
Environmental Justice
Livestock Grazing
Native American Religious Concerns
Socioeconomics
Soils
Water Quality, Surface and Ground
Wetlands/Riparian Zones
Wilderness
Wildlife, including Threatened or Endangered Species
Vegetation, including Invasive Species

Background

The current lessee does not graze cattle on the allotment. Continuation of current use by the lessee would have no impact on any of the resources.

Under the No DWMA Grazing Alternative and the No Action Alternative however, the lessee could transfer the lease to a qualified applicant who could graze cattle on the allotment.

3.1 Air Quality

Affected Environment:

The Mojave Desert Air Quality Management District (MDAQMD) has state air quality jurisdiction over the area associated with the proposed action. Much of the time, air quality throughout the project area is generally good. There are, however, times that

the area does not meet air quality standards due to locally generated and/or wind transported pollutants. The vicinity in which the grazing allotment is located is currently classified as a federal non-attainment area for ozone and PM-10 under national standards. The area is within the Mojave Desert PM-10 Planning Area and the South East Desert Ozone non-attainment area. The State Implementation Plan (SIP) identifies sources of PM-10 emissions and control measures to reduce emissions. The SIP emphasizes controls and management.

Environmental Consequences:

A. No Grazing Alternative

The removal of livestock from the entire allotment would not adversely affect air quality.

B. No DWMA Grazing Alternative

Livestock grazing, due to trampling, outside the DWMA when soil moisture is low could increase fugitive dust emissions (PM10). In addition, vehicles used in association with livestock operations on the access roads would also generate small additional amounts of PM10 emissions and various precursor emissions for ozone.

However, the overall effect on air quality would be minimal due to the generally wide distribution of livestock movement patterns outside the DWMA. Occasionally, livestock will be concentrated in corrals or temporary holding areas for short periods or up to several weeks to move livestock on or off the allotment. Particulate concentrations would be slightly higher during these times but would not likely exceed standards. PM10 and ozone emissions within the allotments would be deminimous and no further conformity determination is required.

C. Impacts of the No Action Alternative

Air quality impacts associated with the no action alternative would be the same as Alternative B.

3.2 Areas of Critical Environmental Concern (ACECs)

Affected Environment:

Clark Mountain ACEC

The Clark Mountain ACEC was established by the CDCA Plan (1980) to provide special management attention for important wildlife and cultural resources (including Native American values). Clark Mountain is one of the richest floral and faunal areas of the

California Desert, containing eleven plant communities. However, only 4,240 acres of the original 253,064-acre ACEC remain under BLM management. Management of the central portion of the ACEC, including Clark Mountain itself, was transferred to the National Park Service pursuant to the CDPA. Of the 4,240 acres remaining in the ACEC, approximately 1,578 acres falls within Valley Wells Allotment. The wildlife values that supported the designation of the Clark Mountain ACEC do not occur within the remaining ACEC's boundaries. None of the ACEC falls within the Shadow Valley DWMA.

Archaeological resources recorded within the Clark Mountain ACEC include numerous agave roasting pits (ten sites, several with multiple roasting pits), a filled-in rock circle (potential trail shrine) and a rock shelter. The archaeological record does not identify impacts to cultural properties within the Valley Wells Allotment as a consequence of cattle grazing activity in the Clark Mountain ACEC.

Halloran Wash ACEC

The Halloran Wash ACEC, designated for cultural resource values, is located approximately 13.5 miles northeast of Baker, California, and immediately north of Interstate 15 within the most southern portion of the Valley Wells Allotment. The area incorporates equidistant spans of the westerly trending Halloran Wash and an adjacent southwesterly trending drainage which merge near Halloran Spring. Lands contained within the ACEC total 2,500 acres, all of which are within the Valley Wells Allotment and within the DWMA.

Archaeological resources recorded within the Halloran Wash ACEC include petroglyph sites (4), rock circle sites with one or more features (8), rock alignment (1), hunting blinds (3), cairns (1) and arrastres (2) plus one site that is not identified as to type. Several of these locations are situated within very rocky surface contexts, others are on ridges, alluvial fan or on low terraces within or adjacent to the washes.

Two sites have been recorded within 100 meters of range improvements within the Halloran Wash ACEC. The archaeological record does not identify impacts to cultural properties within the Valley Wells Allotment as a consequence of cattle grazing activity in the Halloran Wash ACEC.

Desert Tortoise DWMA Shadow Valley Unit ACEC

The NEMO plan amendment adopts many of the recommendations of the desert tortoise recovery plan. The desert tortoise recovery plan is the basis and the key strategy for recovery and de-listing of the Mojave population of the species (USFWS 1994). In short, the DWMAs were proposed by USFWS to maintain and enhance viable populations of the desert tortoise considered essential to the recovery of the species (a

more detailed discussion of the DWMAs and desert tortoise recovery is found in the Wildlife section).

To address the desert tortoise recovery plan's goals and objectives, BLM established the Ivanpah DWMA through the NEMO plan amendment by designating and combining the Shadow Valley and Ivanpah Valley Units (BLM 2002). The Shadow Valley Unit ACEC is 107,072 acres, which encompasses most, but not all, of the Shadow Valley critical habitat unit designated by USFWS in 1994.

Environmental Consequences:

A. Impacts of No Grazing Alternative

Removal of livestock from the allotment would benefit values for which the ACECs were established because livestock use would no longer impact cultural resource values or wildlife habitat.

B. Impacts of the No DWMA Grazing Alternative

The cultural resources within the Clark Mountain ACEC would continue to be subject to impacts by grazing. Livestock grazing is known to impact archaeological resources where cattle congregate by causing artifact damage, movement, and mixing. The intensity of grazing, soil hardness, moisture, and vegetation cover are factors that influence the level and types of impacts. Erosion is a secondary impact resulting from grazing that can also impact cultural sites. In zones where livestock are more dispersed, such as upland locations away from water sources, impacts would be restricted to surface displacement and impacts are anticipated to be minimal and would not impair site eligibility. Potential impacts to cultural resources (e.g., artifact damage, artifact displacement, loss of site integrity and soil erosion) will be highest in these congregation areas where range improvement projects have been constructed and lowest in open range areas. In rock areas and zones without sufficient feed minimal impacts to cultural resources are likely to occur (ASPPN 1990; Roney 1977).

To address the impacts of grazing on cultural resources located within the Clark Mountain ACEC, the Supplemental Procedures for Livestock Grazing Permit / Lease Renewals, an amendment to the State Protocol, would be implemented. The amendment allows for the renewal of existing grazing permits prior to completing all NHPA compliance needs as long as the 2004 State Protocol direction, the BLM 8100 Series Manual Guidelines, and specific amendment direction for planning, inventory methodology, tribal and interested party consultation, evaluation, effect, treatment, and monitoring stipulations are followed.

All cultural resources within the Halloran Wash ACEC would be protected from grazing

impacts under this alternative as they are located within the DWMA.

Removing cattle from the DWMA portion of the allotment would eliminate impacts to the ACEC.

C. Impacts of the No Action Alternative

As noted in the No DWMA Grazing Alternative discussion above, the lessee could transfer the lease to a qualified applicant who could graze cattle on the allotment. The analysis that follows applies to a scenario in which cattle graze the entire allotment.

The cultural resources within the Clark Mountain ACEC and Halloran Wash ACEC would continue to be subject to impacts by grazing. Livestock grazing is known to impact archaeological resources where cattle congregate by causing artifact damage, movement, and mixing. The intensity of grazing, soil hardness, moisture, and vegetation cover are factors that influence the level and types of impacts. Erosion is a secondary impact resulting from grazing that can also have impact cultural sites. In zones where livestock are more dispersed, such as upland locations away from water sources, impacts would be restricted to surface displacement and impacts are anticipated to be minimal and would not impair site eligibility. Potential impacts to cultural resources (e.g., artifact damage, artifact displacement, loss of site integrity and soil erosion) will be highest in these congregation areas where range improvement projects have been constructed and lowest in open range areas. In rock areas and zones without sufficient feed minimal impacts to cultural resources are likely to occur (ASPPN 1990; Roney 1977).

To address the impacts of grazing on cultural resources located within the Clark Mountain, Halloran, and Shadow Valley DWMA Unit ACECs, the Supplemental Procedures for Livestock Grazing Permit / Lease Renewals, an amendment to the State Protocol, would be implemented. The amendment allows for the renewal of existing grazing permits prior to completing all NHPA compliance needs as long as the 2004 State Protocol direction, the BLM 8100 Series Manual Guidelines, and specific amendment direction for planning, inventory methodology, tribal and interested party consultation, evaluation, effect, treatment, and monitoring stipulations are followed.

Grazing on the DWMA portion of the allotment can have direct and indirect effects on the desert tortoise and its habitat. A summary of these impacts has been provided in the NEMO Plan amendment (pages 4-14 to 4-17 and 4-43 to 4-48) and includes trampling of desert tortoises above ground or in their burrows, reduction in forage, reduction in cover, soil compaction, damage to soil crusts and introduction of non-native plants. While annually authorized grazing in the non-DWMA portion of the allotment could result in all of these impacts occurring to some degree, it is at or near the cattle concentration areas where the impacts would be most likely to occur. The NEMO Plan

amendment requires a 40% utilization threshold in non-DWMA habitat, at which point cattle would have to be removed from the allotment or moved to a different portion of the allotment.

3.3 Cultural Resources

Affected Environment:

In the late 1970s BLM conducted Class I cultural resource surveys (exhaustive records search and literature review) and Class II cultural resource surveys (intuitive and random sample pedestrian) of the east Mojave Desert. These surveys were conducted by Gallegos et al. (1980); King, Casebier et al. (1981); Hall (1981); Warren et al. (1981); and Rector (1981). The areas surveyed included the Valley Wells Allotment. These surveys provide BLM with a significant historic and archaeological data base for cultural resource studies. Based on the above cultural surveys, the density and location of historic and prehistoric archaeological sites within the east Mojave may be predicted (e.g., presence/absence of a water source, naturally occurring lithic material for tool manufacture, subsistence resources available, and materials to construct shelter).

Range improvements (cattle guards, windmills, wells, water tanks, water troughs, spring development, water pipelines, and corrals) have been constructed in the allotment. Less than 10% of the public lands in the allotment have been surveyed for cultural resources. More than half of the range improvements have been surveyed for cultural resources by federal, private consultants and vocational archaeologists within the past 50 or 60 years. These surveys included one mile by 1/8 mile survey blocks conducted as part of the 1978-80 Class II survey of the eastern Mojave Desert, linear surveys for pipelines, electric lines, and fiber optic lines within designated utility transmission corridors, and multiple five acre or less surveys of public lands as a result of proposed mining, range, and realty actions.

For thousands of years Native American populations have lived within the regions occupied by the Valley Wells Allotment, using the abundant natural resources (e.g., plant, animal, and mineral) present. The region which comprises the Valley Wells Allotment is an area of sensitivity to Native Americans today. Site types known to be present within the boundaries of the allotment include prehistoric and historic trails and roads, temporary habitation/campsites, lithic reduction stations, resource procurement, roasting pits, petroglyphs, and rock rings/alignments. While a number of recorded archaeological sites located within the allotment are considered eligible for inclusion in the National Register of Historic Places (NRHP), no sites within the allotment have been formally nominated or listed in the NRHP. Sites that have not been evaluated for eligibility to the NRHP are presumed eligible for planning purposes. There are 158 sites recorded within the allotment. Ninety-five of these are within the DWMA. Four of the linear sites are recorded both within the DWMA and outside of the DWMA.

Site Types in Allotment by Location

Site Type	Water Source	Mountains	Terrace	Canyon	Valley	Grazing Impacts (1)
	Number of sites					
1 Prehistoric Habitation	1	11		1	13	
2 Prehistoric Turquoise Mine/Quarry	1	4		1		
3 Petroglyphs	1	14			2	
4 Prehistoric Food Preparation/Hunting/Collecting	1	23	9	5	10	2
5 Lithic Scatter/Quarry	3	6	5		8	2
7 Ceramic Scatter		1			5	
8 Rock Alignment		8			1	
10 Historic Habitation	3	1	2		1	
11 Historic Mining (2)		7			3	
12 Historic Debris		3	1		8	
13 Historic Road/Trail (3)					1	
14 Historic Well			1			
16 Transmission Lines (4)	-	-	-	-	-	
17 Unknown		1			3	

[1] Includes damage done by livestock and ranching related activities.
[2] Includes shafts, adits, prospects, and related structures (milling equipment, headframes).
[3] Not including two historic roads that travel through various types of terrain.
[4] Travels through various types of terrain.

Four cultural resource properties that have sustained impacts due to grazing activities in the past are located within the Shadow Valley DWMA / ACEC:
CA-SBr-1074, a large lithic scatter;
CA-SBr-2566, a cluster of rock rings;
CA-SBr-2707, an artifact scatter; and,
CA-SBr-4054, a cluster of portable metates.

Environmental Consequences:

A. Impacts of the No Grazing Alternative

Cultural resources would not be impacted by this alternative.

B. Impacts of the No DWMA Grazing Alternative

All four archaeological sites previously identified as impacted by grazing activities are within the DWMA and would no longer be subject to impacts by cattle under this alternative. Removing livestock grazing from the DWMA portion of the allotment would

have no impacts to known heritage resources, as identified in the Affected Environment.

Cultural resources outside the DWMA may still be impacted by grazing. To address the impacts of grazing on cultural resources within the allotment, the Supplemental Procedures for Livestock Grazing Permit / Lease Renewals, and amendment to the State Protocol would be implemented. The amendment allows for the renewal of existing grazing permits prior to completing all NHPA compliance needs as long as the 2004 State Protocol direction, the BLM 8100 Series Manual Guidelines, and specific amendment direction for planning, inventory methodology, tribal and interested party consultation, evaluation, effect, treatment, and monitoring stipulations are followed.

C. Impacts of the No Action Alternative

Impacts are the same for the entire allotment as those described for Alternative B outside of the DWMA. All four sites previously identified as impacted by grazing activities are within the DWMA.

Although cattle use on the allotment would be generally dispersed, congregation of cattle may occur near springs, water sources and other facilities (e.g., wells, tanks, troughs, and corrals) where cultural resources are known to occur. Potential impacts to cultural resources (e.g., artifact damage, artifact displacement, loss of site integrity and soil erosion) would be highest in these congregation areas where range improvement projects have been constructed and lowest in open range areas.

Under the no action alternative, these sites would continue to be subject to impacts by grazing activities. In addition, potential for impacts to the sites within 100 meters of range improvements can be anticipated. None of the four sites showed recent impacts by grazing activities and would be subject to monitoring to determine if impacts by cattle reoccur under this alternative.

To address the impacts of grazing on cultural resources within the allotment, the Supplemental Procedures for Livestock Grazing Permit / Lease Renewals, and amendment to the State Protocol would be implemented. The amendment allows for the renewal of existing grazing permits prior to completing all NHPA compliance needs as long as the 2004 State Protocol direction, the BLM 8100 Series Manual Guidelines, and specific amendment direction for planning, inventory methodology, tribal and interested party consultation, evaluation, effect, treatment, and monitoring stipulations are followed.

3.4 Environmental Justice

Affected Environment:

The grazing allotment being analyzed is located in rural San Bernardino County. The rural areas of the county are typically occupied by moderate to low-income households. No minority communities or low-income communities are located within or adjacent to the proposed project areas. The grazing of livestock in rural San Bernardino County has been a common practice for over 100 years. Ranching has been typically performed by persons of low to moderate income.

Environmental Consequences:

None of the alternatives would result in disproportionately high or adverse human health or environmental effects on minority communities.

3.5 Livestock Grazing

There is one developed water source for livestock in the northeast area of the allotment (outside the DWMA). There has been no livestock use on the Valley Wells Allotment since the 2003-2004 grazing year.

Environmental Consequences:

A. Impacts of the No Grazing Alternative

There would be no grazing impacts under this alternative.

B. Impacts of the No DWMA Grazing Alternative

Management and grazing of livestock outside the DWMA would conform to the NEMO Plan amendment. Grazing would be confined to the non-DWMA portion by excluding grazing from the DWMA.

C. Impacts of the No Action Alternative

When there is less than 230 lbs per acre of ephemeral forage in the DWMA, cattle will be excluded from the DWMA from March 15 to June 15. There would likely be an increase in costs for the lessee associated with gathering and moving cattle in this situation. There may also be additional costs associated with transporting cattle outside the DWMA, either off the allotment completely or to the portions of the allotment outside of the DWMA. This could substantially increase the overall operating costs for the lessee.

During periods of drought the lessee may be required to remove cattle from all or part of the allotment to prevent resource damage. In this case, it would be necessary to transport, feed, and hold the cattle somewhere off the allotment until conditions on the allotment improve and sufficient forage is available to sustain grazing.

There is a potential for livestock death loss due to stress involved in transport (pregnant cows may abort calves, young calves may sustain injuries from larger animals, and/or older cows may perish). In conclusion there is potential for impacts associated with implementation of the DWMA-related terms and conditions. There is also a potential for moderate to substantial impacts to occur associated with the removal of cattle from the allotment due to drought.

3.6 Native American Religious Concerns

Affected Environment:

The Valley Wells Allotment may be considered as traditional territory to five Native American tribes. The tribes include the Colorado River Indian Tribes, Chemehuevi Indian Tribe, Fort Mojave Indian Tribe, Las Vegas Band of Paiute Indians and the Pahrump Paiute Tribe. None of the tribes are living on the allotment. There are no treaty rights associated with any of the plant or animal communities on the allotment. Some tribal members may hunt and conduct subsistence and available resource collection of materials from the public lands (such as gathering mesquite beans, basket weaving materials, medicinal plants, and clay) within the allotment. Sacred sites and ceremonial use of small areas within the allotment may also occur. The adjacent Clark Mountains in particular have been identified as possessing traditional Native American values.

Government-to-government coordination and consultation with the aforementioned Native American tribes has been initiated. The BLM requested information about tribal concerns over issues regarding cattle grazing, water and range developments, spring rehabilitation projects, and any other issues or concerns that the tribes may have with the BLM's management of the grazing allotment. In addition, the BLM requested any information on traditional, religious or cultural use in the area that might be affected as a result of any of the alternatives.

Environmental Consequences:

All Alternatives

Native Americans are concerned about both cultural and natural values. Implementation of the Rangeland Health Fall Back Standards and Guidelines for Livestock Grazing may address many of these concerns. Should Native American

traditional values or cultural use areas be impacted, appropriate mitigation would be identified in consultation with the tribes who ascribe these values to the area.

Tribal consultation was initiated on October 7, 2008, and is ongoing. Tribes consulted include Fort Mojave Indian Tribe, the Chemehuevi Indian Tribe, the Colorado River Indian Tribes, the Las Vegas Band of Paiute Indians, and the Pahrump Paiute Tribe.

3.7 Socioeconomics

Affected Environment:

San Bernardino County is one of the largest and fastest growing counties in California. A 2007 population estimate by the California Department of Finance was 2,028,013 largely located in its more populated southwestern portions. As of the census of 2000, there were 1,709,434 people, 528,594 households, and 404,374 families residing in the county.

The median income for a household in the county was $42,066, and the median income for a family was $46,574. The per capita income for the county was $16,856. About 12.60% of families and 15.80% of the population were below the poverty line, including 20.60% of those under age 18 and 8.40% of those ages 65 or over.

The analysis area is near the California-Nevada state line in the farthest east portion of San Bernardino County. Baker, California is the closest community to the Valley Wells Allotment. Development is generally low due to the lack of population centers near public lands, but development pressures are increasing to the north and east from Stateline and to the west from Mountain Pass Mine activities.

Environmental Consequences:

A. No Grazing Alternative

There would be no discernible economic impact to San Bernardino County.

B. No DWMA Grazing Alternative

There would be no discernible economic impact to San Bernardino County.

C. No Action Alternative

Under this alternative, grazing could continue on the allotment. During periods of drought the lessee may be required to remove cattle from all or part of the allotment which would cause a loss in revenue to the lessee. The grazing operation would

continue to have an indiscernible influence on the local and regional economy of San Bernardino County.

Overall there would be no discernible economic impact to the lessee or the economy of San Bernardino County.

3.8 Soils

Affected Environment:

Detailed soil surveys have not been conducted for the region encompassing the Valley Wells Allotment. In general, soils of the region are predominately aridisols (calcids and durids) and entisols (ordents and psamments). Accurate classification below these subgroups requires more detailed study. However, some generalizations can be made.

BLM assessed the allotments in June 1999 to determine if the rangeland health standards were being met. Specific soils standards relate to permeability and infiltration. All sites examined were found to meet the standards for soils. Minor soil compaction and loss of vegetation occurs in the immediate area of some watering locations.

Environmental Consequences:

A. No Grazing Alternative

The grazing withdrawal alternative would eliminate the effects of cattle grazing on soil resources within the entire allotment.

B. No DWMA Grazing Alternative

The proposed action would eliminate the effects of cattle grazing on soil resources within the DWMA portion of the allotment. If livestock grazing were to resume in the non-DWMA portion of the allotment, impacts due to cattle use would occur. However, erosion or compaction would not measurably increase.

C. No Action Alternative

If livestock grazing were to resume, impacts due to cattle use of the entire allotment would occur. However, erosion or compaction would not measurably increase.

3.9 Surface and Ground Water

Affected Environment:

Surface water exists primarily as runoff during storm events, and no perennial streams exist in the allotment. Groundwater aquifers underlie the basin areas at depths up to several hundred feet.

Water use for grazing is low and localized draw down of the water table at specific stock wells has not been observed. Water quality is suitable for domestic use in most areas although elevated Total Dissolved Solids (TDS) levels are common. Evapotranspiration exceeds percolation in all areas surrounding water wells used for livestock. Some springs exist in the allotment with small accompanying riparian areas. See the Wetlands and Riparian Zones elements for additional discussion.

Environmental Consequences:

A. Impacts of all Alternatives.

No impacts to surface water quality are anticipated as surface water exists only as runoff during storm events.

No impacts to static groundwater levels are anticipated as water well production is minimal for livestock watering within the ground water basin. In addition, no impacts to groundwater quality are anticipated.

3.10 Wetlands and Riparian Zones

Affected Environment:

There are no wetlands within the Valley Wells Grazing Allotment. Two developed springs are within the allotment (one inside and one outside the DWMA) with minimal riparian habitat elements around the improvements. These areas receive heavy use when grazed by livestock.

Springs provide much needed water to wildlife species that require a perennial water source. Endemic micro fauna can also be found inhabiting these rare water sources.

Water sources in the Mojave Desert are rare and occur as seeps and springs. Springs are generally small and are associated with prominent mountain ranges. The "typical" spring, seep, or riparian area consists of trees, cattails/reeds, ferns, grasses, sedges (*Carex* spp.), or rushes (*Juncus* spp.), and a few shrub or small tree species, except where tamarisk (*Tamarix* spp.) dominates exclusively. Spring areas encompassing

more than five acres have plant communities with larger trees/shrubs. The following trees have been found at the spring sites: willows (*Salix gooddingii, S. exigua*), cottonwoods (*Populus* spp.), mesquites (*Prosopis* spp.), hackberries (*Celtis* spp.), and tamarisk. Shrubs at these sites are Baccharis (*Baccharis* spp.), and desert willow (*Chilopsis linearis*). Grasses include threeawns (*Eragrostis* spp.), dropseeds (*Sporobolus* spp.), and bluegrasses (*Poa* spp.). Other plants common to spring sites are rushes, sedges, common reeds (*Phragmites* spp.), willows, and tamarisk.

The small areas with riparian vegetation at Coyote Hole and Kingston Spring show no adverse effects of grazing.

Environmental Consequences:

A. No Grazing Alternative

Riparian areas would not be adversely affected by this alternative. The healing process that began in 2003 when the allotment was last grazed would continue.

B. No DWMA Grazing Alternative

There would be no adverse impact to the spring in the DWMA.

Impacts to the spring outside the DWMA: Livestock grazing is known to impact riparian resources where cattle congregate by causing forage damage, removal of vegetative cover, and trampling causing movement and mixing of soil particles. The intensity of grazing, soil hardness, moisture, and vegetation cover are factors that influence the level and types of impacts. Erosion is a secondary impact resulting from grazing that can also impact riparian habitats. If grazing were to occur outside the DWMA then spring and riparian protection would be addressed in the AMP that would be prepared prior to authorizing livestock grazing. Any range improvement or structures designed to protect the spring (e.g., fencing) would be subject to separate environmental review.

C. No Action Alternative

The impacts of this alternative would be the same as Alternative B except that the impacts would be spread throughout the entire allotment, including potential impacts to both springs.

3.11 Wilderness

Affected Environment:

The following table describes the wilderness areas affected by the grazing allotment,

the size of the wilderness area, the size of the affected area, and the wilderness qualities contained within the affected area. These wilderness areas were designated in 1994. The Wilderness Act and the CDPA allow the grazing in the wilderness areas within the allotment.

In addition to the information identified in the table below, wilderness values also include naturalness and solitude. Naturalness refers to an area which generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable. Solitude is the state of being alone or remote from habitation; the size, shape and diversity of terrain and vegetation contribute to opportunities for solitude.

Wilderness	**Size**	**Affected Area**	**Characteristics**
North Mesquite Mountains Wilderness	28,900 AC	Southern 11,300 AC	Rolling brown foothills, a few steeper mountains, and medium sized buttes comprise the reddish-brown geologic features in the wilderness. Vegetation of this area is characteristic of the mid-elevations of the eastern Mojave Desert.
Mesquite Wilderness	44,800 AC	South Western 17,900 AC	The Mesquite Wilderness consists of portions of the Mesquite Mountains, Mesquite Valley, and the Clark Mountain Range. The Mesquite Mountains have more gradual rising slopes than the rough and rocky Clark Mountain Range.
Kingston Range Wilderness	199,400 AC	South Eastern 96,700 AC	The southeastern portion of the wilderness provides critical habitat for the threatened desert tortoise. The wilderness area is an ecological transition zone between the Great Basin and Mojave Desert with numerous species of flora and fauna reaching their northern and southern most distribution limits.
Hollow Hills Wilderness	22,000 AC	Eastern 570 AC	The area contains plains, hills, and alluvial fans typical of the California desert. Creosote bush, desert holly, and scale-scrub plant communities dominate the vegetation throughout the area, and desert tortoises and Mojave fringe-toed lizards live here in seclusion.

Environmental Consequences:

A. No Grazing Alternative

The No Grazing Alternative would not result in adverse impacts to wilderness. Grazing has not occurred within the allotment since the 2003-2004 grazing season. Excluding livestock grazing from the entire Valley Wells Allotment and allocating its allocated forage for wildlife use would ensure that impacts associated with grazing would not occur within these wilderness areas in the future. The proposed action would benefit vegetation in the wilderness areas. Perennial grass biomass should increase, possibly at the expense of non-forage species, as the plant community structure adjusts. Disturbed areas at and around existing range improvements should restore naturally over time. Elimination of these potential resource use impacts in perpetuity is likely to benefit the naturalness and opportunities for solitude within the area consistent with the principles of wilderness management.

B. No DWMA Grazing Alternative

DWMA portion of the allotment: Grazing has not occurred within the allotment since the 2003-2004 grazing season. Excluding livestock grazing from the entire Valley Wells Allotment and allocating its allocated forage for wildlife use, would ensure that impacts associated with grazing would not occur within these wilderness areas in the future.

> Naturalness: The proposed action would benefit vegetation in the wilderness areas. Perennial grass biomass should increase, possibly at the expense of non-forage species, as the plant community structure adjusts. Disturbed areas at and around existing range improvements should restore naturally over time.
>
> Solitude: Elimination of these potential resource use impacts in perpetuity will benefit the opportunities for solitude within the area consistent with the principles of wilderness management.

Non-DWMA portion of the allotment: Impacts to the wilderness areas' unique characteristics are addressed in the Cultural Resources, Wildlife, and Vegetation sections.

> Naturalness: The opportunity to experience the portion of the wilderness that is within the allotment but outside of the DWMA without evidence of humans would continue to be limited by the presence of cattle, water sites, and fencing on the non-DWMA portion of the allotment.
>
> Solitude: Wilderness visitors' opportunity to experience solitude may be impacted by the sound of cattle or the occasional presence of livestock

operators.

The impacts associated with grazing would be as anticipated and allowed for by the Wilderness Act and the CDPA.

C. Impacts of the No Action Alternative

Impacts would be similar to the No DWMA Grazing Alternative except that under this alternative, grazing could occur within the allotment, consistent with the land use plan and a subsequent AMP, should the lessee choose to graze the allotment.

The impacts associated with grazing would be as anticipated and allowed for by the Wilderness Act and the CDPA.

3.12 Wildlife

Affected Environment:

Desert tortoise: The majority of the allotment, inside and outside the Shadow Valley Unit DWMA ACEC, is suitable desert tortoise habitat. Desert tortoises are most active during the spring and early summer when annual plants are available for forage. Additional activity occurs during fall months and on warm days when it is overcast or raining.

The Mojave population of the desert tortoise was listed as threatened on April 2, 1990 because changes in resource conditions and disease had resulted in the rangewide decline of desert tortoise populations during the two decades prior to listing. Critical habitat for the desert tortoise was designated by USFWS in portions of California, Nevada, Arizona, and Utah on February 8, 1994, which includes substantial portions of the Valley Wells Allotment.

The USFWS included Shadow Valley in its designation of critical habitat because it contains the primary constituent elements (PCEs) of critical habitat: sufficient space to support viable populations within each of the six recovery units and provide for movement, dispersal and gene flow; sufficient quality and quantity of forage species and the proper substrate conditions to provide for the growth of the species; suitable substrates for burrowing, nesting, and overwintering; burrows, caliche caves, and other shelter sites; and, habitat protected from disturbance and human-caused mortality (59 *Federal Register* 5820). Most of the critical habitat on the Valley Wells Allotment is contained within the Shadow Valley Unit DWMA ACEC, but several thousand acres in the southwest corner of the allotment lie outside the DWMA boundaries.

In June 1994 USFWS issued the Desert Tortoise (Mojave Population) Recovery Plan.

The desert tortoise recovery plan is the basis and key strategy for recovery and de-listing of the Mojave population of the species (USFWS 1994). The NEMO plan amendment adopts many of the recommendations of the desert tortoise recovery plan.

The recovery plan divides the range of the desert tortoise into 6 distinct population segments, or recovery units and recommends the establishment of 14 desert wildlife management areas throughout the recovery units. A DWMA ensures population persistence by connecting functional habitats within a recovery unit (USFWS 1994). A recovery unit is a sub-unit of a listed species that is essential to the recovery of the entire species.

Within each proposed DWMA, the recovery plan recommended implementation of reserve level protection of desert tortoise populations and habitat, while maintaining and protecting other sensitive species and ecosystem functions. The recovery plan also recommended that DWMAs be designed to follow the accepted concepts of reserve design and be managed to restrict human activities that negatively affect desert tortoises (USWFS 1994). The recovery plan recommended that land management agencies establish one or more DWMAs within each the desert tortoise (59 Federal Register 5820) recovery units, and USFWS designated critical habitat units throughout the range of the species. The 14 critical habitat units have defined boundaries and cover specific areas throughout the 6 recovery units (USFWS 1994).

The recovery plan notes that by the early-1990s there was widespread habitat deterioration in the Ivanpah DWMA, caused primarily by grazing, motorcycle races, mining, and a proliferation of roads and trails throughout the area. The recovery plan recommended withdrawal of mining and grazing, that motorcycle events be cancelled, that some roads be closed, and that some roads and highways be fenced to prevent vehicle collisions with desert tortoises.

The BLM used the boundaries of the critical habitat units and other considerations, such as conflicts in management objectives and more current information, to propose and designate DWMAs through its land use planning processes. In California, BLM also classified these DWMAs as ACECs, which allows BLM to establish management goals for specific resources in defined areas (USFWS 2008).

The NEMO plan amendment prescribes a number of actions to implement the recovery plan, which include restrictions on grazing in the Shadow Valley Unit DWMA ACE.

Wildlife (General): The allotment contains desert bighorn (*Ovis canadensis*) habitat. The desert bighorn is a BLM sensitive species. Desert bighorns typically occupy steep, mountainous, open terrain, although migration between mountain ranges through valleys has been documented (Bleich et al. 1990). Healthy populations are known from Clark Mountain and the Kingston Range, and travel by rams on the allotment between

the ranges is expected.

Other mammals occurring in the area include cottontail rabbit (*Sylvilagus audubonii*), black-tail jackrabbit (*Lepus californicus*), kit fox (*Vulpes macrotis*), antelope ground squirrel (*Ammospermophilus leucurus*), coyote (*Canis latrans*), kangaroo rats (*Dipodomys* spp.), western pipistrel (*Pipistrellus hesperus*), and woodrats (*Neotoma* spp.). BLM sensitive bat species occurring in the area include fringed myotis (*Myotis thysanodes*), pallid bat (*Antrozous pallidus*), and California leaf-nosed bat (*Macrotus californicus*). Surveys using night-vision equipment and echolocation recording devices have detected these species of bats at abandoned mine locations within the allotment.

The entire allotment includes habitat for common reptilian species, such as side-blotched lizard (*Uta stansburiana*), zebra-tailed lizard (*Callisaurus draconoides*), leopard lizards (*Gambelia* spp.), rattlesnakes (*Crotalus* spp.), western whiptail (*Cnemidophorus tigris*), desert horned lizard (*Phrynosoma platyrhinos*), and others.

A small portion of the allotment at the northwest edge near Coyote Hole contains sand deposits inhabited by the Mojave fringe-toed lizard (*Uma scoparia*). This isolated population, along with that at Ibex Dunes in Death Valley National Park and the Dumont Dunes area has been identified as genetically distinct. The USFWS has been petitioned to list the Amargosa populations as threatened.

The habitat types found within the allotment can contain a wide range of bird species, such as black-throated sparrow (*Amphispiza bilineata*), common raven (*Corvus corax*), white-crowned sparrow (*Zonotrichia leucophrys*), Brewer's sparrow (*Spizella breweri*), red-tailed hawk (*Buteo jamaicensis*), Western kingbird (*Tyrannus verticalis*), black-tailed gnatcatcher (*Polioptila melanura*), blue-gray gnatcatcher (*Polioptila caerulea*), phainopepla (*Phainopepla nitens*), northern mockingbird (*Mimus polyglottos*), Gambel's quail (*Lophortyx gambelii*), American kestrel (*Falco sparverius*), turkey vulture (*Cathartes aura*), verdin (*Auriparus flaviceps*), mourning dove (*Zenaida macroura*), lesser nighthawk (*Chordeiles acutipennis*), horned lark (*Ermophila alpestris*), poorwill (*Phalaenoptilus nuttallii*), rock wren (*Salpinctes obsoletus*), canyon wren (*Catherpes mexicanus*), Anna's hummingbird (*Calypte anna*), Costa's hummingbird (*Calypte costae*), and house finch (*Carpodacus mexicanus*). The allotment contains habitat for Bendire's thrasher (*Toxostoma bendirei*), burrowing owl (*Athene cunicularia*), and prairie falcon (*Falco mexicanus*), which are BLM sensitive species.

Environmental Consequences:

A. No Grazing Alternative

Impacts would not occur to wildlife; grazing would not occur in critical habitat, either inside or outside the DWMA.

B. No DWMA Grazing Alternative

Removing cattle from the DWMA portion of the allotment would eliminate impacts to wildlife. Removal of grazing from the DWMA portions of the allotment would be beneficial to the desert tortoise and would conform with the recommendations of the recovery plan. Grazing would continue in critical habitat outside the DWMA.

Impacts from cattle grazing in the remaining portion of the allotment would be competition with native wildlife for forage, trampling of sensitive natural communities (especially at springs and seeps), reduction in annual plant diversity, and compaction of soils. The last two effects would be most severe in the vicinity of springs, water troughs, and corrals.

Grazing can have direct and indirect effects on the desert tortoise and its habitat. A summary of these impacts has been provided in the NEMO plan amendment (pages 4-14 to 4-17 and 4-43 to 4-48) and includes trampling of desert tortoises above ground or in their burrows, reduction in forage, reduction in cover, soil compaction, damage to soil crusts and introduction of non-native plants. While annually authorized grazing in the non-DWMA portion of the allotment could result in all of these impacts occurring to some degree, it is at or near the cattle concentration areas where the impacts would be most likely to occur. The NEMO plan amendment requires a 40% utilization threshold in non-DWMA habitat, at which point cattle would have to be removed from the allotment or moved to a different portion of the allotment.

Impacts associated with grazing to the isolated population of Mojave fringe-toed lizards at Coyote Hole could be adverse. Trampling of burrows, grazing of shade plants, and the potential for introduction of weeds on the blowsand deposits are expected effects of grazing in this species-specific habitat.

Although bighorn inhabit steep, rocky areas that cattle cannot access, the dispersal areas through the valleys between the Kingston Range and Clark Mountain would be subject to removal of forage species utilized by bighorn. Water sources for cattle could benefit bighorn by providing additional water.

C. Impacts of the No Action Alternative

The same impacts would occur with this alternative as stated in the No DWMA Grazing Alternative but would include the entire allotment.

3.13 Vegetation

Affected Environment:

The Valley Wells Allotment consists of Mojave Creosote Bush Scrub, Mojave Mixed Woody/Succulent Scrub, Blackbrush Scrub, Alkali playa, Desert Sink, Desert Saltbush Scrub, and Mojavean Pinyon-juniper Woodlands (Holland 1986). Shrub and tree species present in the allotment include creosote bush (*Larrea tridentata*), white bursage (*Ambrosia dumosa*), ratany (*Krameria* spp.), ephedras (*Ephedra* spp.), cheesebush (*Hymenoclea salsola*), saltbushes (*Atriplex* spp.), honey mesquite (*Prosopis glandulosa*), paperbag bush (*Salazaria mexicana*), catclaw acacia (*Acacia greggii*), brittlebush (*Encelia farinosa*), inkweed (*Suaeda* spp.), and boxthorn (*Lycium* spp.). Predominant succulent species in the allotment include chollas and prickly-pears (*Opuntia* spp.), yucca (*Yucca* spp.), cottontop cactus (*Echinocactus polycephalus*), fish-hook cactus (*Mammillaria* sp.), Engelmann hedgehog cactus (*Echinocereus engelmannii*), and California barrel cactus (*Ferocactus cylindraceus*). Annual and perennial herbaceous species and grasses include species such as big galleta (*Hilaria rigida*), galleta (*Hilaria jamesii*), buckwheats (*Eriogonum* spp.), plantain (*Plantago* spp.), wire-lettuce (*Stephanomeria* spp.), locoweed (*Astragalus* spp.), and spineflowers (*Chorizanthe* spp.).

Key species and other important species utilized by cattle in the allotment include needle grass and Indian ricegrass (*Achnatherum* spp.), ephedra, fluff grass (*Erioneuron pulchellum*), galleta, white bursage, ratany, saltbush, brittlebush, and yerba mansa (*Anemopsis californica*).

BLM Sensitive Plants: The BLM sensitive Rusby's desert-mallow (*Sphaeralcea rusbyi* var. *eremicola*) is found in the Valley Wells Allotment. Twenty-four collections from ten locations are known in California of this perennial plant. Five of these locations are in the allotment, concentrated on the north side of Clark Mountain. Other locations include the Cima Dome in the Mojave National Preserve and the Panamint Mountains in Death Valley National Park.

Foxtail cactus (*Coryphantha vivipara* var. *rosea*) is found in the southwest part of the allotment on limestone outcrops. This species is designated rare in California by the California Native Plant Society. It is not recognized as a BLM sensitive species.

Unusual Plant Assemblages (UPAs): The CDCA Plan established the Valley Wells shadscale scrub UPA, a small plant association near the intersection of Excelsior Mine Road and Interstate 15.

Biological Soil Crusts (BSCs): In arid and semi-arid lands, vegetation cover is often sparse or absent. Nevertheless in open spaces between plants the soil surface is

generally not without life, but covered by a community of highly specialized organisms. BSCs are a complex mosaic of cyanobacteria, green algae, lichens, mosses, microfungi, and other bacteria. Distribution is influenced by many factors including elevation, soils and topography, disturbance, timing of precipitation, and plant community structure.

In general, cyanobacteria and microfungal filaments weave through the top few millimeters of soil and aid in holding loose soil particles together forming a biological crust which stabilizes and protects soil surfaces. The biological crusts aid moisture retention, provide nitrogen, and may discourage the growth of annual weeds. Below the surface, the soil flora grows various rhizomes, hyphae and filaments that further bind the soil together. Most of the biological crust organisms make their growth during cool moist conditions.

In hot deserts, such as the Mojave Desert, BSCs are more likely to be present at lower elevations because there is more open space between plants. As elevation increases, and space between plants decreases, there is a corresponding decrease in BSCs. In addition hot deserts are dominated by coarse textured soils. According to Belnap (2003, 2005) "less stable, coarse-textured soils often support only highly mobile, large filamentous cyanobacteria (such as Microcoleus spp.)." Belnap also observes that "Cyanobacteria heavily dominate crusts of hot desert sites (Sonoran, Mojave and Chihuahuan) where Potential Evapotranspiration (PET) is high" and that some hot desert sites may not support biological crusts (Belnap 2005). Belnap (2003 and 2005) and BLM (2001) indicate that the Mojave, including the Valley Wells Allotment, would likely contain simple crusts that are highly mobile and quick to recover from disturbance.

Invasive/non-native species: Invasive non-native species, such as Sahara mustard (*Brassica tournefortii*), filaree (*Erodium cicutarium*), red brome (*Bromus rubens*), and Mediterranean grasses (*Schismus* spp.), have been established on upland sites of the allotment for many years. No comprehensive inventory data of these species has been collected. Rangeland Health Assessments conducted in 1999 documented the presence of the invasive non-natives in several locations on the allotment.

Overall, the current densities of invasive non-native species on the allotment are considered moderate. Annual fluctuations in densities are directly influenced by the amount of late winter or early spring precipitation.

Environmental Consequences:

A. No Grazing Alternative

Vegetation would not be adversely affected by this alternative. Impacts would not occur to vegetation as grazing would not occur inside or outside the DWMA.

B. No DWMA Grazing Alternative

DWMA portion of the allotment: Biomass of cattle forage species (e.g., perennial grass) would increase, as the plant community structure adjusts. Denuded and disturbed area at and around water troughs and corrals would restore naturally over time.

Non-DWMA portion of the allotment: Cattle grazing would reduce plant cover and density and alters plant composition. In the short-term, this would result in increased exposure of desert tortoises and other wildlife species to predation and inclement weather conditions. During years of low rainfall, and resultant sparse annual plant production, cattle grazing would reduce desert tortoise forage sufficiently to cause them to lay fewer eggs, thereby reducing reproductive potential. Hence, competition for forage would occur in the spring of the year during years of low annual plant forage when cattle would eat the small amount of annual forage available.

The impacts from cattle grazing would be minimized by implementing the NEMO plan amendment grazing stipulations, which include forage utilization levels restricted to 30% in DWMA habitat and 40% in non-DWMA habitat, maintenance of range improvements, and conformance with the 2005 BO terms and conditions, along with maintenance of proper cattle distribution and periodic rest of individual grazing use areas during the growing season.

Rusby's desert-mallow is found on the Valley Wells Allotment at lower elevations. It is a desirable forage plant that could be impacted by cattle grazing outside the DWMA. However, anticipated effects are not likely to be at a level that would preclude the species from thriving in the area because of livestock would be widely dispersed.

Grazing is not expected to noticeably impact the foxtail cactus because cattle typically do not browse this species.

Grazing animals apply compression and shear forces to the soil, including those that support BSCs. The soil crust response to these disturbances is highly variable. Moisture and burial are two important factors relating to the degree of impact. In coarse textured sandy soils, moist crusts are better able to withstand disturbances than dry soils (Belnap 2003 and BLM 2001). According to Belnap (2002 and 2005 and BLM 2001) the hot desert crusts are simple crusts that are highly mobile and quick to recover from disturbance. The large, filamentous cyanobacteria can move 5mm per day if it is wet (Belnap 2003 and BLM 2001). Therefore, moist winter and spring soils are likely better able to withstand grazing than dry soils later in the spring. These simple crusts would likely recover within days once the rain returns. Unlike other parts of the Mojave Desert the east Mojave receives precipitation not only in the winter and spring but during summer monsoon storms. The crusts are simple allotment wide. Near congregation areas, the crusts would likely be destroyed and unable to recover.

Outside of congregation areas the impact would not be substantial (BLM 2001).

Weeds may be spread outside the DWMA by cattle or vehicles used in livestock operations. Cattle may reduce red brome by grazing it this annual species while it is growing.

C. Impacts of the No Action Alternative

The impacts of this alternative would be the same as the No DWMA Grazing Alternative except that they could occur throughout the allotment.

4: CUMULATIVE IMPACTS

NEMO Plan – Cumulative Impact

The NEMO plan amendment limits surface disturbance to one percent within the DWMA. This change affects cumulative impacts of all resources, values, and uses in the allotment and its vicinity to some extent. In addition, cumulative effects for the following resources and activities/uses are identified in the NEMO plan amendment Final Environmental Impact Study that affect, or are affected by, grazing in the Valley Wells Allotment, including vegetation and wildlife, soils, recreational use, wilderness, vehicle access, socioeconomics, and rangeland health and grazing management.

Valley Wells Allotment – Other past, present, and reasonably foreseeable future actions

Past activities include recreational off-highway vehicle (OHV) use; development, operation and maintenance of utility and energy facilities (e.g., electricity and natural gas transmission lines); livestock grazing; construction and vehicle use of paved and unimproved roads; mining; and, water developments.

Present activities include mining, OHV use, and grazing. Other activities that may overlap the allotment include utility rights of way (e.g., electricity and natural gas transmission lines), general recreation (e.g., hunting, picnicking, camping, and rock hounding), and scientific study.

Future activities may include development of range improvements, continued grazing, vehicle use, maintenance and construction of utility rights of way, and mining. Two high-speed rail projects from southern California to Las Vegas, Nevada have also been proposed - DesertXpress and the California-Nevada Interstate Maglev. Both of these projects would generally follow the I-15 alignment. These projects are currently in their early planning phases and are not likely to be constructed within several years.

A. Cumulative Impacts of the No Grazing Alternative

There are no adverse effects to any resource discussed in this EA for this alternative; therefore, there would be no cumulative impacts. Accordingly, no further discussion of these resources is provided.

B. Cumulative Impacts of the No DWMA Grazing Alternative, and C. Cumulative Impacts of the No Action Alternative

The EA's impact assessments conclude that no impacts would occur to the following values within the DWMA portion of the Valley Wells Allotment:

Air Quality
Areas of Critical Environmental Concern
Cultural Resources
Environmental Justice
Livestock Grazing
Native American Religious Concerns
Socioeconomics
Soils
Water Quality, Surface and Ground
Wetlands/Riparian Zones
Wilderness
Wildlife
Vegetation

Therefore there would be no cumulative impacts to these values within the DWMA portion of the Valley Wells Allotment, and no further discussion of these resources is required.

For areas outside the DWMA, no impacts were identified for the following resources:

Air Quality
Environmental Justice
Livestock Grazing
Native American Religious Concerns
Socioeconomics
Surface and Ground Water

4.1 Cultural Resources

As discussed in Section 3, grazing is known to cause movement and mixing of cultural resources in areas where livestock congregate on the allotment, including riparian areas (springs), corrals, and water facilities. Approximately 2% of the known sites identified within the Valley Wells Allotment are found in such areas and have been impacted by grazing activities. In much of the allotment where livestock are more dispersed, or in rock areas without sufficient forage, impacts would be restricted to surface displacement and impacts are anticipated to be minimal.

Impacts associated with the No DWMA Grazing Alternative combined with past, present, and reasonably foreseeable future actions on cultural resources are gradual loss of archaeological resources. This impact would be minimized because BLM would implement procedures in accordance with the August 2004 amendment to the State Protocol Agreement to insure compliance with Section 106 of the National Historic Preservation Act of 1966.

4.2 Soils

As discussed in Section 3, issuance of a grazing lease and conducting a livestock operation would have slight impact to soils as the majority of disturbance caused by cattle would be concentrated at range improvements and fencelines.

Impacts associated with the No DWMA Grazing Alternative combined with past, present, and reasonably foreseeable future actions that contribute to soil compaction would be confined to the areas around range improvements. These impacts would be minimal as no new range improvements have been proposed at this time that would increase the extent of compacted soil on the allotment.

4.3 Wetland and Riparian Zones

As discussed in Section 3, riparian areas on the Valley Wells Allotment are very limited in extent. Impacts associated with the No DWMA Grazing Alternative combined with past, present, and reasonably foreseeable future actions on riparian zones would be minimal as the developed springs would be fenced off.

4.4 Wilderness

As discussed in Section 3, the allotment's non-DWMA portion-related impacts to the wilderness areas' unique characteristics are addressed in the Cultural Resources, Wildlife, and Vegetation sections. To the extent that impacts may result from grazing, these impacts were anticipated and allowed for by the Wilderness Act and the CDPA. Accordingly, impacts associated with the No DWMA Grazing Alternative combined with past, present, and reasonably foreseeable future actions on wilderness characteristics including naturalness, solitude, primitive and unconfined recreation, and special features would not be consequential.

4.5 Wildlife

As discussed Section 3, impacts to the desert tortoise and its non-DWMA habitat on the Valley Wells Allotment includes potential trampling of desert tortoises above ground or in their burrows, and reduction in forage and ground cover, soil compaction, damage to soil crusts, and proliferation of non-native plants. These impacts would occur at or near the cattle concentration areas, which cover an inconsequential area within the allotment.

Impacts on wildlife associated with the No DWMA Grazing Alternative, combined with past, present, and reasonably foreseeable future actions would have no measurable bearing on recovery of the desert tortoise. Similarly, cumulative impacts on other wildlife species would be minimal.

4.6 Vegetation

As discussed in Chapter 3, impacts to vegetation would be located in concentrated use areas, which cover a minimal area of the allotment.

Accordingly, impacts on vegetation associated with the No DWMA Grazing Alternative, combined with past, present, and reasonably foreseeable future actions would not be consequential.

C. Cumulative Impacts of the No Action Alternative

Under this alternative the cumulative impacts relating to the Valley Wells Allotment would be the same as the No DWMA Grazing Alternative except they would apply to the entire allotment.

5: CONSULTATION

Consultation with MDAQMD was not undertaken as emissions are expected to be de-minimus and air quality is not expected to be impacted.

Informal consultation with USFWS was conducted on the effects of the proposed action on the desert tortoise. In March 2006, USFWS had provided concurrence with BLM's conclusion that a previous iteration of the proposed action would have been within the scope of the 2005 Biological Opinion for the California Desert Conservation Area Plan (Desert Tortoise) (1-8-04-F-43R). The outcome of the current proposed action would be identical, therefore USFWS concluded no additional consultation would be required.

Contacted Native American tribes had no comments on the draft plan amendment.

6: NOTIFICATION

Notification of the proposed action and analysis was prominently posted in the Needles Field Office public area and on the Field Office web site during the environmental review process. Both the public area posting and the office web site home page noted that public participation is the cornerstone of the National Environmental Policy Act process and encourage public involvement in the office's review of uses proposed on public lands. The web site main page provided a link to projects currently under environmental review.

A Notice of Intent (NOI) to amend the CDCA Plan was published in the Federal Register October 1, 2008, pages 144-145. Three respondents provided comments during the 30-day NOI scoping period, addressed in Chapter 1.3 Scoping and Issues above.

A draft plan amendment was posted on the Needles Field Office web site and sent to interested publics for a 30-day public comment period that ended December 17, 2008. Five comments were received. Three comments were received from environmental groups and one from an individual, all of which expressed support for the proposed action. An additional respondent requested additional information regarding eventual disposition of the allotment's water sources, a subject not considered in this plan amendment (see Chapter 1.3 above).

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Appendix B. Cultural Resources

To protect the ACECs' cultural resource values within the grazing allotments (within and outside the ACECs), the BLM and the State Historic Preservation Officer (SHPO), appended the *Supplemental Procedures for Livestock Grazing Permit/Lease Renewals Amendment* (Grazing Amendment) to *The State Protocol Agreement Between California Bureau Of Land Management And The California State Historic Preservation Officer Regarding The Manner In Which The Bureau Of Land Management Will Meet Its Responsibilities Under The National Historic Preservation Act And The National Programmatic Agreement Among The BLM, The Advisory Council On Historic Preservation, And The National Conference Of State Historic Preservation Officers* (State Protocol).

The Grazing Amendment to the State Protocol allows for the renewal of existing grazing leases as long as the State Protocol, the BLM 8100 Series Manual guidelines, and specific stipulations in the Grazing Amendment are followed:

Grazing permit issuance of any acreage would be scheduled (inventory, evaluation, treatment, and monitoring, as appropriate) for cultural resource compliance coverage. A records and literature search would be conducted for each grazing allotment to ascertain previously recorded site locations.

An inventory methodological strategy would be implemented in areas where livestock are likely to concentrate within areas and locations of high cultural sensitivity. Tribes would be consulted.

Eligibility to the National Register of Historic Places may be determined. The effect of range/grazing activity on historic properties would be determined. If historic properties are found to be effected, consultation with SHPO and the Advisory Council of Historic Places would be initiated, if necessary.

Standard protection measures to protect eligible historic properties following specifications in the Amendment would be determined and implemented. Specified monitoring guidelines for identified cultural properties as specified in the Amendment would be implemented.

Reports would be submitted annually to the SHPO and BLM Sacramento State Office summarizing activities carried out, findings, and accomplishments.

The stipulations of the Grazing Amendment appended to the State Protocol for the heritage ACECs located within the Valley Wells Allotment would provide adequate protection measures for cultural resources.

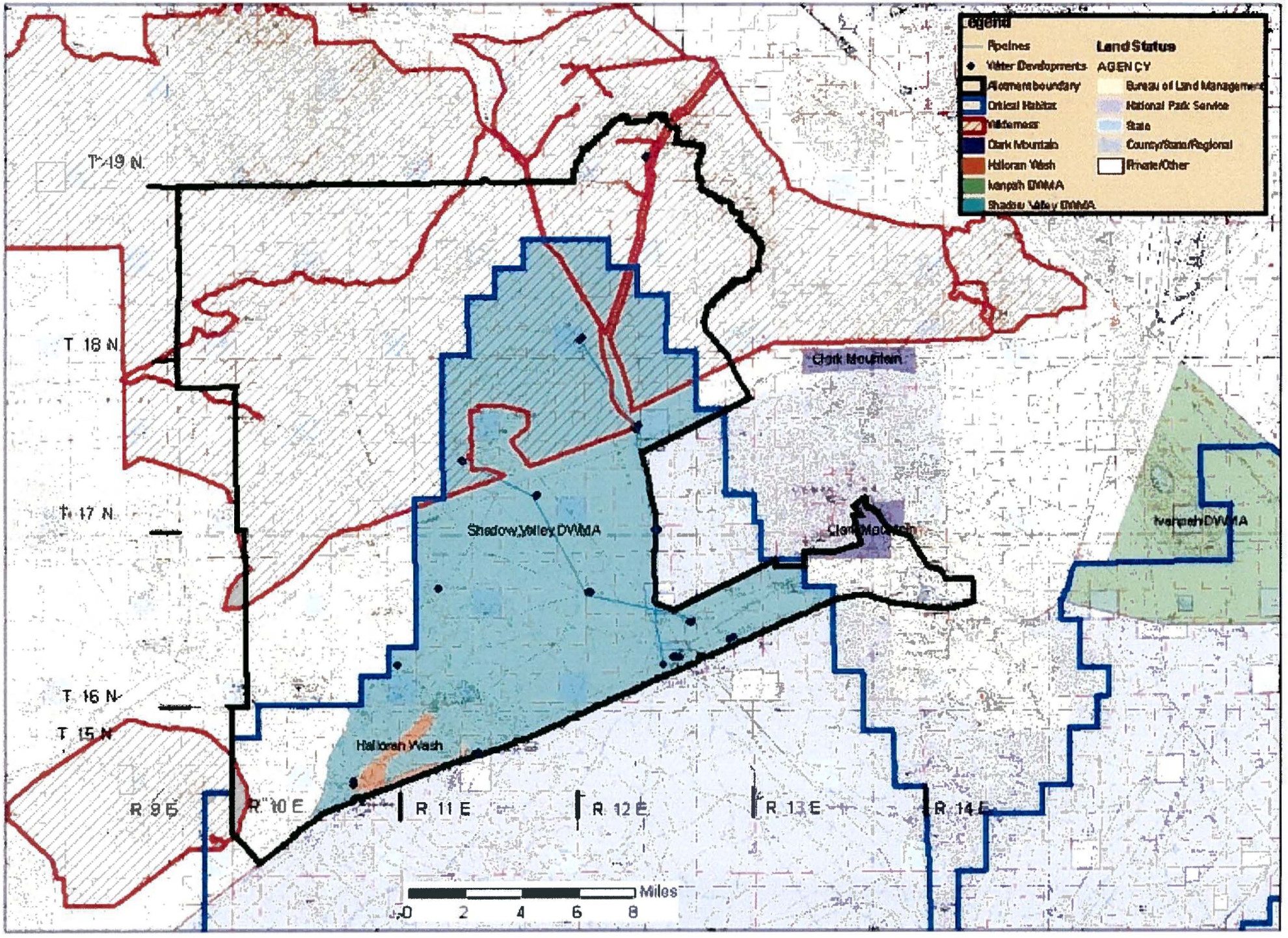
Cultural Resource Table

SITE NUMBER	TYPE SITE	LOCATION	DISTURBANCE
CA-SBr-133	Camp site	Alluvial fan	Road blading
CA-SBr-204	Turquoise mining	Hill, spring	None noted
CA-SBr-205 M-20	Prehistoric Turquoise Mine	Canyon Himalya Mine	Modern mining
CA-SBr-206 M-24	Prehistoric Turquoise Mine	Mountain	None noted
CA-SBr-207 M-24	Turquoise quarry, petroglyphs	Mountain	None noted
CA-SBr-208	Petroglyphs	Spring area	None noted
CA-SBr-545	Agave roasting pit	Terrace in arroyo	Bulldozing
CA-SBr-546	Agave roasting pits	Ridge	Gravel mining
CA-SBr-808	Agave roasting pit	Ridge	None noted
CA-SBr-809	Agave roasting pit	Ridge	None noted
CA-SBr-810	Agave roasting pit	Hill	None noted
CA-SBr-811	Agave roasting pit	Ridge	None noted
CA-SBr-812	Agave roasting pits	Terrace in arroyo	None noted
CA-SBr-813	Agave roasting pits	Terrace in arroyo	None noted
CA-SBr-814	Agave roasting pit	Ridge	None noted
CA-SBr-818	Agave roasting pit	Alluvial fan	None noted
CA-SBr-822	Agave roasting pits	Arroyo	None noted
CA-SBr-827	Agave roasting pit	Ridge	None noted
CA-SBr-828	Agave roasting pit	Ridge	None noted
CA-SBr-829	Rock filled circle	Ridge	None noted
CA-SBr-830	Agave roasting pit	Ridge	None noted
CA-SBr-831	Agave roasting pits	Ridge	None noted
CA-SBr-833	Agave roasting pit	Ridge	None noted
CA-SBr-834	Agave roasting pits	Ridge	None noted
CA-SBr-837	Agave roasting pit	Ridge	None noted
CA-SBr-855	Rock shelter	Ridge	None noted
CA-SBr-856	Agave roasting pit	Ridge	None noted
CA-SBr-867	Agave roasting pits	Ridge	None noted
CA-SBr-885	Rock alignments, mortar	Alluvial fan	None noted

SITE NUMBER	TYPE SITE	LOCATION	DISTURBANCE
CA-SBr-887	Rock shelter	Hill	Mining impacts
CA-SBr-905	Rock shelter	Arroyo	None noted
CA-SBr-907	Agave roasting pit	Ridge	None noted
CA-SBr-1074	Lithic scatter	Alluvial fan	Cattle grazing
CA-SBr-1596	Ceramic scatter	hill	None noted
CA-SBr-2226	Rock shelter	Hill	Excavation
CA-SBr-2240	Agave roasting pit	Ridge	Road cut
CA-SBr-2241	Roasting pits	Alluvial fan	None noted
CA-SBr-2242	Agave roasting pit	ridge	Looting
CA-SBr-2247	Rock shelters	Hill slope	None noted
CA-SBr-2248	Temp camp, hist. Homestead	Spring	None noted
CA-SBr-2250	Campsite b/w cerm	Alluvial fan	None noted
CA-SBr-2254	Temporary camp, historic camp	Terrace above wash, spring	None noted
CA-SBr-2339	Lithics	Alluvial fan	None noted
CA-SBr-2529	Petroglyphs	Ridge	None noted
CA-SBr-2530	Petroglyphs	Ridge	None noted
CA-SBr-2531	Petroglyphs	Ridge	None noted
CA-SBr-2532	Ceramics, b/w	Alluvial fan	None noted
CA-SBr-2533	Petroglyphs	Ridge	None noted
CA-SBr-2534	Petroglyphs	Ridge	None noted
CA-SBr-2535	Petroglyphs	Ridge	Shooting, graffiti
CA-SBr-2536	Petroglyphs	Ridge	None noted
CA-SBr-2537	arrastres	Alluvial fan	None noted
CA-SBr-2538	arrastres	Alluvial fan	None noted
CA-SBr-2540	Not noted	Alluvial fan	None noted
CA-SBr-2541	Hunting blind	Valley	None noted
CA-SBr-2542	Petroglyphs	Ridge	None noted
CA-SBr-2543	Rock rings	Ridge	None noted
CA-SBr-2544	Rock cairn	Ridge	None noted
CA-SBr-2545	Not noted	Ridge	None noted
CA-SBr-2546	Hunting blind	Alluvial fan	None noted
CA-SBr-2547	Rock circle	Alluvial fan	None noted
CA-SBr-2548	Hunting blind	Alluvial fan	None noted
CA-SBr-2549	Not noted	Alluvial fan	None noted
CA-SBr-2550	Petroglyphs	Alluvial fan	None noted
CA-SBr-2552	Rock ring	Alluvial fan	None noted
CA-SBr-2553	Rock ring	Alluvial fan	None noted
CA-SBr-2555	Grinding slick	Alluvial fan	None noted

SITE NUMBER	TYPE SITE	LOCATION	DISTURBANCE
CA-SBr-2556	Rock ring	Alluvial fan	None noted
CA-SBr-2557	Rock ring	Alluvial fan	None noted
CA-SBr-2558	Rock ring	Alluvial fan	None noted
CA-SBr-2559	Rock rings	Alluvial fan	None noted
CA-SBr-2560	Rock alignments	Alluvial fan	None noted
CA-SBr-2561	Petroglyph	Ridge	None noted
CA-SBr-2562	Rock ring	Ridge	None noted
CA-SBr-2563	Rock alignment	Ridge	None noted
CA-SBr-2564	Rock alignment	Ridge	None noted
CA-SBr-2565	Rock alignment	Ridge	None noted
CA-SBr-2566	Rock rings	Alluvial fan	Possible damage by sheep/cattle
CA-SBr-2567	Sleeping circles	Alluvial fan	None noted
CA-SBr-2568	Grinding slick	Valley near wash	None noted
CA-SBr-2569	Rock ring	Ridge	None noted
CA-SBr-2570	Grinding slick	Ridge	None noted
CA-SBr-2571	Petroglyphs	Ridge	None noted
CA-SBr-2572	Cairn, alignment	Ridge	None noted
CA-SBr-2681	Petroglyphs, BRM	Hill slope	Graffiti
CA-SBr-2690	lithics	Alluvial fan	Erosion
CA-SBr-2691	Artifact scatter	Alluvial fan	None noted
CA-SBr-2692	Ceramics	Alluvial fan	None noted
CA-SBr-2698	hammerstones	Terrace above wash	None noted
CA-SBr-2707	Artifact scatter	Spring	Walk-in well dev.
CA-SBr-2718	Grinding slick	Ridge	None noted
CA-SBr-2719	Petroglyphs	Cliff	None noted
CA-SBr-2812	Metate (iso?)	Alluvial fan	None noted
CA-SBr-2974	Temp camp	Alluvial fan	None noted
CA-SBr-2979	Mining site	Ridges	None noted
CA-SBr-2982	Roasting pits (2)	Ridge	None noted
CA-SBr-2983	Historic well dev.	Terrace	None noted
CA-SBr-2984	Lithic scatter	Terrace	None noted
CA-SBr-2985	Roasting pit	Terrace	None noted
CA-SBr-2986	Roasting pits (6)	Terrace	None noted
CA-SBr-2987	Roasting pits (2)	Terrace	None noted
CA-SBr-2988	Roasting pits (2)	Arroyo	Bulldozer
CA-SBr-2989	homestead, trail, prehistoric camp	Spring	None noted
CA-SBr-2990	Historic mine	Mountain	looting
CA-SBr-2995	Rock shelter	Hill	None noted

SITE NUMBER	TYPE SITE	LOCATION	DISTURBANCE
CA-SBr-3069	1880s wagon road	Alluvial fan	None noted
CA-SBr-3148	Limestone circles	Small hill	None noted
CA-SBr-3149	circles	Small hill	None noted
CA-SBr-3188	Lithic scatter	Alluvial fan	None noted
CA-SBr-3676	Lithic scatter	Ridge	None noted
CA-SBr-3729	Lithic scatter (2 loci)	Alluvial fan	None noted
CA-SBr-4054	Portable metates (6)	Hill	Ranching
CA-SBr-4606	Lithic scatter	Ridge	None noted
CA-SBr-4607	Lithic quarry	Ridge	None noted
CA-SBr-4608	Lithic scatter	Terrace above wash	None noted
CA-SBr-4700	Roasting pits (2)	Terrace	None noted
CA-SBr-4702	Mounds (4), graves?	Alluvial fan	None noted
CA-SBr-4888	Mining (smelter and mill site,)	Alluvial fan	None noted
CA-SBr-5389	Rock shelters, asso. w/ turquoise mining	Cliff and talus slope	Pot hunting
CA-SBr-5390	Rock shelter, lithics	Ridge	None noted
CA-SBr-5652	Petroglyphs	Terrace	None noted
CA-SBr-5653	Grinding slick	Alluvial fan	None noted
CA-SBr-5654	Cupules (Petros)	Ridge	None noted
CA-SBr-6030	Grinding slicks	Alluvial fan	None noted
CA-SBr-6564	Historic debris	Alluvial fan	None noted
CA-SBr-6565	Historic debris	Hill	Pipeline
CA-SBr-6597	Historic mine camp	Alluvial fan	None noted
CA-SBr-6599	Debris scatter	Alluvial fan	None noted
CA-SBr-6619	Lithic scatter	Terrace	None noted
CA-SBr-7348	Lithic scatter	Ridgeline	None noted
CA-SBr-7349	Prehist Roasting pits and historic debris	Terrace	Erosion
CA-SBr-7352	Debris scatter	Alluvial fan	None noted
CA-SBr-7353	Debris scatter	Alluvial fan	None noted
CA-SBr-7354	Debris scatter	Alluvial fan	None noted
CA-SBr-7355	Debris scatter	Alluvial fan	None noted

SITE NUMBER	TYPE SITE	LOCATION	DISTURBANCE
CA-SBr-7356	Ceramic scatter	Alluvial fan	None noted
CA-SBr-7357	Mine	Ridge, hill	Vandalism
CA-SBr-7359	Cairn	Hill side	None noted
CA-SBr-7360	Lithics/hist debris	Ridgeline	None noted
CA-SBr-7361	Debris scatter	Ridgeline	None noted
CA-SBr-7393	Small pit w/ crates	Ridge	None noted
CA-SBr-7394	petroglyphs	Hill	None noted
CA-SBr-7688	homestead	Terrace	None noted
CA-SBr-7689	Historic road	Various	None noted
CA-SBr-7694	Transmission lines	Various	None noted
CA-SBr-7806	Lithics, ceramics	Alluvial fan	Dirt road bisects
CA-SBr-7807	Lithic scatter	Terrace	Erosion
CA-SBr7808	Lithic scatter	Alluvial fan	None noted
CA-SBr-7809	Lithic scatter	Alluvial fan	None noted
CA-SBr-7810	Historic debris	Alluvial fan	None noted
CA-SBr-7811	Historic mine	Hill	Modern mining
CA-SBr-7812	Homestead	Alluvial fan	Road
CA-SBr-7813	Historic mine	Hill	Modern mining
CA-SBr-8153	Historic debris	Alluvial fan	Pipeline, looting
CA-SBr-8154	Historic road	Various	None noted

Appendix A. Valley Wells Allotment