

ENVIRONMENTAL ASSESSMENT

CA-660-06-54

Converting Ford Dry Lake Allotment To A Purpose Which Precludes Livestock Grazing

U.S. Department of the Interior
Bureau of Land Management
Palm Springs-South Coast Field Office
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CHAPTER 1: INTRODUCTION

A. Summary

The Bureau of Land Management (BLM) is proposing to convert the Ford Dry Lake Allotment to a purpose which precludes livestock grazing in accordance with 43 CFR 4110.4-2(b). The Ford Dry Lake Allotment was designated unavailable for grazing in the Northern & Eastern Colorado Desert Coordinated Management Plan (NECO), approved December 2002. The following is a summary of the current situation:

Ford Dry Lake Allotment	
Public Land Acres in allotment:	49,682
Critical Habitat Acres (Desert Tortoise):	640
Area of Desert Big Sheep Habitat (9 mile buffer)	49,682
Plan area:	NECO
Identified for cancellation:	Yes

There is an existing lease but no grazing occurring.

B. Background

In 2000, the grazing lease for the Ford Dry Lake Allotment expired. The grazing lease was renewed under the authority of Public Law 106-113. The grazing lease was renewed for a period of 10 years and contained the same terms and conditions as the expiring grazing lease. Public Law 106-113 required compliance with all applicable laws and regulations, which include the National Environmental Policy Act (NEPA) and the Endangered Species Act (ESA). Following the analysis of environmental impacts this grazing lease may be approved, canceled, suspended or modified, in whole or in part, to meet the requirements of such applicable laws and regulations.

The Bureau of Land Management (BLM) is proposing to convert the Ford Dry Lake Allotment to a purpose which precludes livestock grazing on public land. The allotment is located within the California Desert Conservation Area (CDCA) and is managed by the Palm Springs South Coast Field Office. The Ford Dry Lake Allotment is located in Eastern Riverside County, just north of Interstate 10 in the vicinity of Ford Dry Lake, approximately 20 miles west of Blythe, California. The allotment consists of broad alluvial fans sloping from 1000 feet in elevation near the base of the mountains to 380 feet in elevation at Ford Dry Lake. The dominant vegetation communities are the creosote-white bursage, mesquite bosque and blue palo verde-ironwood-smoketree series.

C. Purpose and Need for the Proposed Action

The purpose of the proposed action is to complete the administrative process for converting the Ford Dry Lake allotment to a purpose that precludes livestock grazing. The NECO Plan

Amendment to the CDCA Plan identified Ford Dry Lake allotment as unavailable for livestock grazing. **Section 2.3.1.2 of NECO (page 2-46) provides that the “Ford Dry Lake sheep allotment (49,682 acres) would no longer be available for domestic sheep use because it is less than 9 miles from occupied bighorn sheep range in the Palen Mountains.”**

Cancellation of the grazing lease and preference for the allotment is necessary to implement this provision of the NECO Plan Amendment. Cancellation is subject to a two-year notification period under 43 CFR 4110.4-2(b). The two-year period **was initiated on (12/19/2002) with publication in the Federal Register of approval of the NECO ROD, and expired on (12/19/2004).**

The need for the action is to implement the conservation strategy established in the NECO Plan Amendment dated December, 2002 adopting the Mountain Sheep Ecosystem Management Strategy in the 11 Western States and Alaska and in conformance with the associated biological opinion (1-8-94-F-16) updated March 31, 2005 (1-8-04-F-43R). The proposed action is needed, specifically, to promote population viability of desert **bighorn sheep**, prevent adverse modification of critical habitat, as well as protection of other special status plants and animals occurring in this allotment.

D. LAND USE PLAN CONFORMANCE and Other Regulatory Compliance:

The proposed action is in conformance with the following plans:

The California Desert Conservation Area Plan of 1980 (CDCA Plan), as amended.

The Northern & Eastern Colorado Desert Coordinated Management Plan of December 19, 2002 (NECO), specifically:

- Cancellation of the Allotment, as stated in Section 2.3.1.2 of this amendment (page 2-46) provides that the “Ford Dry Lake sheep allotment (49,682 acres) would no longer be available for domestic sheep use because the entire allotment is less than 9 miles from occupied bighorn sheep range in the Palen Mountains.”.

Rangeland Health Fall Back Standards and Guidelines for Livestock Grazing remain in effect until CDD S&G are approved by the Secretary of the Interior.

Rangeland Health

The allotment does meet the Rangeland Health Fallback Standards as follows

Table 1: 1999 Rangeland Health Assessment

Rangeland Health Standard	Meets Standard	Does Not Meet Standard	Impacts from Livestock Yes or No	Remarks
Soils	X	n/a	n/a	
Riparian	X	n/a	n/a	
Stream Channel	X	n/a	n/a	
Native Species	X	n/a	n/a	

June 2, 2000 Rangeland Health determinations were completed.

E. Tribes, Individuals, Organizations, or Agencies Consulted

Public Participation

Notification of the proposed action and analysis has been prominently posted in the Palm Springs South Coast Field Office public area and on the Field Office web site during the environmental review process. The web site main page provides a link to projects currently under environmental review.

www.blm.gov/ca/palmsprings

Native American Consultation and Coordination:

The following Native American Tribes were consulted during formulation of the NECO Plan, of which identified the action to make the Ford Dry Lake allotment no longer available for domestic sheep use:

- Ft. Mojave Indian reservation, Needles, CA.
- Chemehuevi Indian Reservation, Havasu Lake, CA
- Colorado Indian Tribes Reservation, Parker, AZ
- Quechan Indian Reservation, Yuma, AZ
- Torres-Martinez Band of Mission Indians, Thermal, CA
- Twenty-Nine Palms Band of Mission Indians, Twentynine Palms, CA
- Cabazon Band of Mission Indians, Indio, CA
- Agua Caliente Band of Cahuilla Indians, Palm Springs, CA

Cooperation, Communication, and Coordination:

Ford Dry Lake Allotment:

- 3/94: Public scoping meetings held in Blythe and Needles, California.
- 3/96: Multi agency meetings held to update public on the status of NECO Plan.
- 2/00: The PSSCFO contacted the grazing operator to discuss the process of renewing the lease and how the NECO plan amendment would potentially effect his grazing allotment
- 7/00: Grazing operator signed grazing lease
- 4/01: Additional public meetings were held to gather comments on the draft NECO plan.
- 12/02: The Grazing Operator was sent Draft Environmental Impact Statement (DEIS) and Final Environmental Impact Statement (FEIS).
- 11/03: The PSSC FO contacted the operator that a grazing decision will be prepared implementing the Record of Decision (ROD) for the NECO Plan.

F. Relationship to Statues, Regulations, and Plans

Authority

1. General Grazing

Authority for the proposed action includes:

- the Federal Land Policy and Management Act of 1976 (43 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 June 28, 1934 as amended (43 United States Code 315, 315a through 315r);
- 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.

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

In August 2004 the State Director, California Bureau of Land Management, and the California State Historic Preservation Officer (SHPO) addressed the issue of the National Historic Preservation Act (NHPA) Section 106 compliance procedures for processing grazing permit lease renewals for livestock as defined in 43 CFR 4100.0-5. The State Director and the

SHPO amended the 2004 State Protocol Agreement between California Bureau of Land Management and The California State Historic Preservation Officer with the 2004 Grazing Amendment, Supplemental Procedures for Livestock Grazing Permit/Lease Renewal. This 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. Biological Opinion on the California Desert Conservation Area Plan

BLM will insure compliance with the incidental take statement of the biological opinion on the Northern and Eastern Colorado Desert CDCA Plan Amendment. BLM will immediately report any injuries or mortality to desert tortoises as a result of grazing to the Fish and Wildlife Service. The BLM and USFWS will review the circumstances to determine if any additional protective measures are required. The BLM will compile any instances of take of the desert tortoise due to grazing activities and report annually to the USFWS. If the annual level of take reaches five tortoises for all allotments in the NECO and Northern and Eastern Mojave Desert CDCA plan amendment areas, BLM will meet with USFWS to determine if re-initiation of consultation is necessary on the grazing aspect of the plan.

CHAPTER 2 PROPOSED ACTION AND ALTERNATIVES

A. Proposed Action

The proposed action is to convert the Ford Dry Lake allotment to a purpose which precludes livestock grazing in accordance with 43 Code of Federal Regulations 4110.4-2(b) and in conformance with the CDCA Plan and NECO Plan Amendment as described in this section. The proposed action balances environmental protection with canceling this allotment.

NECO Provisions Applicable to the Allotment:

Ford Dry Lake Ephemeral Sheep Allotment (49,682 acres) would no longer be available for domestic sheep use because it is less than 9 miles from occupied bighorn sheep range in the Palen Mountains (see appendix I).

B. No Action

This alternative consists of authorizing ephemeral sheep grazing under the existing lease. A new lease would be issued for a term of ten years and include those pre-existing Terms and Conditions as in the current lease, see below. The new grazing lease would continue to include the terms and conditions stated in the Biological Opinion for Ephemeral Sheep

Grazing in the California Desert District (6840 CA-932.5) (1-8-94-F-16) as updated by BO #1-8-04-F-43R

1. Livestock Numbers and Season of Use

Allotment Name	Sheep Number *	AUMs**	Season of Grazing Use***	
			From	To
Ford Dry Lake	Dependent on ephemeral forage availability	Dependent on ephemeral forage availability	March 1	April 30

* The number of livestock authorized to graze during the season of use.
 ** Animal Unit Month (AUM) the amount of forage necessary for the sustenance of five sheep or its equivalent for a period of 1 month.
 *** The period livestock typically graze forage on the allotment. The grazing period of use does not apply (NA) to ephemeral allotments because grazing use would occur when forage is available

2. Livestock Management

Currently there are no sheep grazing on the allotment.

C. Alternatives Considered but not analyzed

1. Convert Allotment to Cattle Use

This alternative is dismissed because it is not within the scope of the public land uses analyzed in the NECO plan for this area. If a qualified applicant submits a proposal for cattle use of the allotment, however, BLM is not precluded from considering a subsequent plan amendment that would allow such use if consistent with the conservation goals established in NECO.

CHAPTER 3 ENVIRONMENTAL ANALYSIS

A. Critical Elements

The following table summarizes potential impacts to various elements of the human environment, including the "critical elements" listed in BLM Manual H-1790-1, Appendix 5, as amended. Elements for which there are no impacts will not be discussed further in this document.

Environmental Element	Proposed Action	No Action Alternative
Air Quality	See discussion	See discussion
ACEC's	See discussion	See discussion
Cultural Resources	See discussion	See discussion
Native American Concerns	See discussion	See discussion
Farmlands	Not present	Not present
Floodplains	Not affected	Not affected
Energy (E.O. 13212)	Not present	Not present
Minerals	Not affected	Not affected
T&E Animal Species	See discussion	See discussion
T&E Plant Species	See discussion	See discussion
Invasive, Nonnative Species	See discussion	See discussion
Wastes (hazardous/solid)	Not affected	Not affected
Water Quality (surface and ground)	See discussion	See discussion
Wetlands/Riparian Zones	Not present	Not present
Wild and Scenic Rivers	Not present	Not present
Wilderness	Not affected	Not affected
Environmental Justice	See discussion	See discussion
Health and Safety Risks to Children	Not affected	Not affected
Visual Resource Mgmt.	See discussion	See discussion

1. AIR QUALITY

Affected Environment:

The Mohave Desert Air Quality Management District (MDAQMD) has state air quality jurisdiction over the area associated with the proposed action. The MDAQMD has rules that apply to this project along with permitting requirements. 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 subject 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. Impacts of Proposed Action Alternative.

Because no grazing related activities would be undertaken, no impacts to air quality would result from grazing use. No appreciable improvement of air quality would be expected because the area is a non-attainment area and grazing's contribution to periods of poor air quality is deminimous. **Grazing has not occurred for the past nine years.**

b. Impacts of No Action Alternative.

Soil disturbance from the trampling action of the livestock when soil moisture levels are low would result in increased fugitive dust emissions (PM10) in the allotments. 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 slight due to the generally wide distribution of livestock movement patterns in the allotments. Occasionally, livestock will be concentrated in temporary holding areas for short periods off an allotment. Emissions would be higher during potential holding periods, but would not likely exceed standards. PM-10 and ozone emissions within the allotment are deminimous and no further conformity determination is required.

c. Cumulative Impacts

The slight increase in PM10 emissions resulting from grazing would make a very small contribution to overall PM10 levels in the general area. Sources of PM10 particles in the area include vehicles being driven on unsurfaced roads and areas devoid of vegetative cover and subject to wind erosion.

Consultation:

Consultation with Mojave Desert Air Quality Management was not undertaken as emissions are expected to be deminimous and air quality is not expected to be impacted.

Maps:

None

References:

None

2. AREAS OF CRITICAL ENVIRONMENTAL CONCERN (ACEC)**Affected Environment:**

See the Cultural Resource section for the Palen Dry Lake Cultural ACEC discussion

3. CULTURAL RESOURCES**Affected Environment**

The Ford Dry Lake allotment includes the playa and shoreline of Ford Dry Lake. Elevation within the allotment ranges from 354 feet amsl to 902 feet amsl. The majority of the allotment consists of a basin with an elevation of less than 425 feet amsl. Research conducted on the Hayfield/Palen/Ford Dry Lakes system concluded that rainfall in the range of 1.3 times greater than modern levels would have created a marsh in Palen Dry Lake. This marsh would have overflowed into Ford Lake when water levels reached approximately 500 feet amsl (Gallegos et al 1980). At that point Ford would have been a large and relatively deep lake. The Ford basin could have at least partially filled periodically during both the Pleistocene and Holocene periods.

The allotment also contains approximately 2230 acres of Palen Dry Lake Area of Critical Environmental Concern (ACEC). The ACEC was established to protect cultural resources.

Sample surveys were conducted throughout the Colorado Desert during the 1970's. These field surveys supported the BLM's California Desert Conservation Area planning effort. BLM staff and cultural resources contractors completed 9 sample units within the Ford Dry lake allotment (BLM 1978). An additional 14 sample units were completed for a geothermal project (APEC 1981). In general, sample units were surveyed using 50 meter transects. A total of 1840 acres of survey were completed.

Approximately 60 miles of linear surveys associated with powerline and pipeline projects have been conducted across or along the southern boundary of the allotment. These linear surveys account for approximately 2000 additional acres of inventory. Mike Mitchell, BLM archaeologist, completed approximately 200 acres of inventory near Wiley Well Rest area in 1988; Fresno City College field school completed 30 acres of inventory in 2004. In total, less

than 10% of the allotment has been inventoried for cultural resources.

Records on file in the Palm Springs-South Coast Field Office (PSSCFO) indicate that 51 archaeological sites have been recorded within the allotment. Two of these sites, CA-RIV-1516 and CA-RIV-2159, consist of large occupation or “camping” areas with milling stones, pottery, lithic debitage, stone tools, and evidence of fire hearths. Large and complex sites like these are likely to be eligible for listing on the National Register of Historic Places. Thirty sites at the eastern edge of the allotment consist of trail segments, pottery and lithic scatters, and milling sites that are part of a system of travel and occupation associated with the McCoy Springs National Register listed archaeological district. An additional 18 sites have been recorded along the periphery of the Ford Dry Lake basin- but outside the allotment boundary. These sites demonstrate the potential for cultural resources to occur along the lake margin.

Prehistoric period sites make up the majority of sites located in the allotment. Tank tracks, tin cans, wire, and other items document World War II desert training activities.

Environmental Consequences:

a. Impacts of Proposed Action Alternative

Cancellation of the grazing lease on the allotment would benefit cultural resources by eliminating authorization for continued sheep grazing. Management for conservation of bighorn sheep is expected to be consistent with cultural resources management needs and would have a positive effect on cultural resources.

b. Impacts of No Action Alternative.

Sheep watering and bedding sites occur along access roads and impacts from livestock congregation could be expected to occur in these locations. Because the roads cross the shoreline and bed of Ford Dry Lake, there is a high potential for cultural resources locations to correspond with areas where impacts from grazing would be greatest.

c. Cumulative Impacts

The cancellation of the grazing lease for conservation of bighorn sheep is expected to be consistent with cultural resource management needs with little or no significant impacts.

Maps

Maps identifying the locations of cultural resources are not included due to the proprietary nature of the information.

References

American Pacific Environmental Consultants Inc. (APEC)

1981 A Cultural Resources Inventory of the Ford Dry Lake Known Geothermal Resource Area. Document on File Palm Springs-South Coast Field Office.

ASPPN

1990 Impacts of Domestic Livestock Grazing on Archaeological Resources Archaeological sites Protection and Preservation Notebook, Technical Notes I-15. U.S. Army Engineer Waterways Experiment Station, Vicksburg MS.

Bureau of Land Management

1978 California Desert Program: Archaeological Sample Unit Records for the Big Maria Planning Unit. Document on File Palm Springs-South Coast Field Office.

Gallegos, Dennis, John Cook, Emma Lou Davis, Gary Lowe, Frank Norris, and Jay Thesken

1980 Cultural Resources Inventory of the Central Mojave and Colorado Desert Regions, California. BLM Cultural Resources Publications. Prepared by WESTEC Services, Inc.

Halford, F. Kirk

1999 A Research Design for the Bishop Field Office Grazing Allotment Lease Renewal Assessments. Cultural Resource Project: CA-170-99-04. On file at the Department of the Interior, Bureau of Land Management, Bishop Field Office, Bishop, CA.

Nielsen, Axel E.

1991 Trampling the Archaeological Record: an Experimental Study. American Antiquity 56(3):483-503

Osborn, Alan, Susan Vetter, Ralph Hartley, Laurie Walsh, and Jesslyn Brown

1987 Impacts of Domestic Livestock Grazing on the Archaeological Resources of Capitol Reef National Park, Utah. Midwest Archaeological Center Occasional Studies in Anthropology No. 20. National Park Service.

Roney, John

1977 Livestock And Lithics: The Effects Of Trampling. Manuscript on file at the Bureau of Land Management, Winnemucca District Office, Winnemucca, NV.

4. ENVIRONMENTAL JUSTICE

Affected Environment:

The grazing allotment being analyzed is located in rural Riverside County. The rural area of the county is typically occupied by moderate to low-income households. The lessee that holds the grazing lease for the allotment being analyzed typically has moderate income.

No minority communities or low-income communities are located within or adjacent to the proposed project areas. Further, the proposed action would not impact the Native American's cultural practices or result in disproportionately high or adverse human health or environmental effects on minority communities.

Environmental Consequences:

a. Impacts of Proposed Action Alternative.

The implementation of the proposed action would have an effect but not a disproportionate effect on low-income or minority populations living near the allotment being analyzed. The loss of livestock grazing in rural Riverside County could result in the loss of seasonal employment to a very small component of low income and minority populations

b. Impacts of No Action Alternative)

The implementation of this alternative would have an effect but not a disproportionate effect on low-income or minority populations living near the allotment being analyzed.

The grazing of livestock in rural Riverside County has been a common practice for over 100 years. Ranching has been typically performed by persons of low to moderate income. Due to the infrequent grazing of this ephemeral allotment the affect to the local Palo Verde Valley economy would be insignificant.

c. Cumulative Impacts

There are no measurable cumulative impacts to low-income or minority populations as a result of current grazing practices (no action), as this allotment has been so infrequently grazed in the past.

5. SOCIAL AND ECONOMIC

Affected Environment:

The allotment being analyzed under the proposed action is located in rural Riverside County. The allotment is primarily operated by the lessee, who may hire local labor on a seasonal basis. This labor typically consists of one to three persons.

The contribution of this allotment to the goods and services of the area is nominal. The sale of sheep at the stock yard by the lessee benefits the financial needs of the lessee and allows them to purchase goods and services for their grazing operation and personal household. These operations are generally small and their affect on the general economy is minor. **No grazing has occurred for the past nine years.**

Environmental Consequences:

a. Impacts of Proposed Action Alternative

There would be a nominal negative effect to the economy of rural Riverside County resulting from the loss of the existing sheep operations. The Ford Dry Allotment is an ephemeral allotment and since ephemeral grazing allotment has no on-the-ground investment in facilities or on-site herd, there would be no financial loss. In addition, the operator does not depend upon this allotment since it only supports useable forage one out of ten years (on the average).

b. Impacts of No Action Alternative

A nominal effect similar to the Proposed Action as the ephemeral allotment is so infrequently grazed.

c. Cumulative Impacts

There would be no meaningful, cumulative impacts to the local or regional economies of Riverside County from the implementation of the proposed action, and its alternatives. The contribution of desert livestock grazing to the local economy within the CDCA is extremely small by the very nature that desert forage production is low. The past, present, or future contributions of the operations to the local or regional economy would be nominal.

Consultation:

None

Maps:

None

References:

None

6. WATER QUALITY, SURFACE AND GROUND

Affected Environment:

The allotment is an arid area of internal drainage. Water runoff occurs only in response to infrequent intense rain storms. Much of the area is subject inundation either by sheet flow or flow confined to an expansive network of ephemeral washer. The groundwater table ranges

from 275 to 340 feet asl coming very close to the surface near Ford Dry Lake. The water quality near the lake is generally poor being unsuitable for long-term domestic use.

Environmental Consequences:

a. Impacts of Proposed Action Alternative.

No adverse impacts to surface water are anticipated as no grazing will occur. Conservation management would have a positive impact on water quality by maintaining vegetative cover, ensuring soil stability, and preventing runoff.

b. Impacts of No Action Alternative.

Sheep grazing in this allotment coincides with periods of rainfall and the resultant growth of ephemeral vegetation. However, the impacts of sheep on water quality in the area is very low given that any surface water quickly infiltrates into the sandy soil. It is very unlikely that sheep grazing would cause adverse impacts **to groundwater** due to the occasional nature of sheep use, a lack of longterm concentrations of sheep in localized areas and the aridity of the allotment.

c. Cumulative Impacts

There is a low potential for water quality issues associated with infrequent grazing or low recreational use of the area. However there are no known records of such contamination in the area.

Consultation:

None

Maps:

None

References:

None

7. WILDLIFE HABITAT

Affected Environment:

Sensitive Species

The Palen Mountain range has occupied Desert Bighorn Sheep habitat, thus the entire Ford Dry Lake Allotment is within this 9 mile buffer of desert bighorn sheep habitat. Desert bighorn sheep are a BLM-designated sensitive species. Bighorn sheep typically occupy steep, mountainous terrain and often migrate through the valleys in the fall.

The approval of the NECO Plan incorporates the BLM Fish and Wildlife 2000 policy adopting the guidelines for domestic sheep management in bighorn sheep habitats contained in *The Mountain Sheep Ecosystem Management Strategy in the 11 Western States and Alaska*. Guideline 10(a) states: "No domestic sheep grazing should be allowed within buffer strips less than 9 miles (13.5 kilometers) surrounding occupied desert bighorn habitat, except where topographic features or other barriers prevent physical contact." (Appendix J Draft NECO plan)

Domestic sheep may transmit disease to bighorn sheep, especially when grazing near steeper terrain or in alluvial fan areas close to steeper terrain. These diseases include scabies, chronic frontal sinusitis, nematode parasites, pneumonia, footrot, parainfluenza-III, bluetongue and soremouth. Such diseases have the capacity to extirpate wild sheep (Jessup, 1985). Diseases may be transferred by direct contact of animals, sharing of water sources, or the movement of parasitic insects such as bot flies. Contact close enough for disease transmission during spring use on this allotment is possible if the individual domestic sheep strays away from the flock and moves toward occupied bighorn habitats or the movement of parasitic insects (Foreman, pers. com. 1999). The presence of domestic sheep may adversely impact natural or artificial bighorn sheep restocking efforts if disease transmission occurs (Mulcahy, pers. com. 1999).

Threatened or endangered species

The Mojave population of the desert tortoise (*Gopherus agassizii*) was listed as threatened on April 2, 1990. Changes in resource and management conditions and disease have resulted in the range wide decline in desert tortoise populations in the past two decades. Critical habitat for the desert tortoise was designated by the U. S. Fish and Wildlife Service in portions of California, Nevada, Arizona, and Utah on February 8, 1994. The NECO plan amendment included the establishment of Desert Wildlife Management Areas (DWMA) as recommended by the Desert Tortoise Recovery Plan (U.S. Fish and Wildlife Service 1994). The Recovery Plan also established Recovery Units, which correspond generally to genetically distinct population segments. The Ford Dry Lake Allotment is located north and adjacent to the Chuckwalla DWMA within the Northern Colorado Recovery Unit. A portion of the allotment lies within desert tortoise critical habitat T6S, R17E, Sec. 5, at the extreme western portion of the allotment.

Wildlife (General)

Mammals that may occur within the allotments include cottontail rabbit (*Sylvilagus auduboni*), 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 potentially occurring in the area include myotis bats (*Myotis* spp.), pallid bat (*Antrozous pallidus*), California leaf-nosed bat (*Macrotus californicus*), and Townsend's big-eared bat (*Plecotus townsendii*).

The allotment include potential 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 (*Phrynostoma platyrhinus*), and various other snake and lizard species.

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 (*Zenaidura 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*).

Environmental Consequences:

a. Impacts of Proposed Action Alternative.

Sensitive Species

The NECO plan adopted guidelines for domestic sheep management in bighorn sheep habitats contained in The *Mountain Sheep Ecosystem Management Strategy in the 11 Western States and Alaska*. Specifically guideline 10(a) states: "No domestic sheep grazing should be allowed within buffer strips less than 9 miles (13.5 kilometers) surrounding desert bighorn habitat, except where topographic features or other barriers prevent physical contact." (Appendix J Draft NECO plan) This document set up a policy framework for management of domestic sheep grazing in and near desert bighorn sheep habitats. BLM policy is to disallow domestic sheep grazing within 9 miles of bighorn sheep habitats depending upon local conditions and management options. Under this policy, the 9 mile buffer taken from the nearest edges of the Palen Mountains are occupied Desert Bighorn Sheep habitat and contain existing bighorn sheep populations. Therefore the entire Ford Dry Lake Allotment is within this 9 mile buffer of desert bighorn sheep habitat. In light of the fact that transmission of disease between domestic and desert bighorn sheep has a potentially negative impact on desert bighorn sheep populations, implementation of NECO plan amendment to convert Ford Dry Lake Allotment to a purpose precluding domestic sheep grazing would be beneficial. (Proposed Plan/FEIS, pages 4-155 through 4-156).

Threatened species

The threatened desert tortoise would benefit from a decrease in direct impacts, such as

trampling of burrows. However, other benefits would come from the indirect impacts including competition for food plants. Palatable perennial plants favored by livestock would become more available as thermal cover for tortoises. Annual plants rich in nitrogen and water would become more available to tortoises.

Wildlife (General)

Cessation of grazing on the Ford Dry Lake Allotment would have a positive impact on wildlife and their habitat in general. Although this allotment is infrequently grazed these benefits would result, in part, from a reduction in competition for forage and the reduced risk of being trampled. In addition, populations of wildlife predators such as common ravens could be reduced by the cessation of grazing. Though minor other positive impacts would include a cessation of grazing related vehicle traffic within the allotments, a reduction in interactions between domestic animals and wildlife, and initiation of passive restoration within desert ecosystems.

b. Impacts of No Action Alternative

Overall, domestic sheep grazing could result in impacts on desert bighorn sheep. Disease transmission would be the greatest potential of concern. Some disruption of wildlife behavioral patterns could also result from activity. Given the allotment is ephemeral and naturally limited infrequent grazing activity these impacts to wildlife are minimal.

c. Cumulative Impacts

The catastrophic results of disease transmission from domestic to bighorn sheep is well documented in bighorn populations throughout the western states. Allowing for a nine mile wide buffer between domestic and bighorn sheep populations in the Proposed Action Alternative (canceling the entire allotment) will partially mitigate this impact by protecting bighorn sheep populations in the Palen McCoy Mountains.

However, not allowing for this nine mile buffer in the No Action Alternative would allow for the potential disease transmission between domestic and bighorn sheep and contribute to the overall range-wide population viability issue. In addition, this potential threat of disease transmission would add to the other environmental stress factors that impact bighorn sheep population viability.

Past and present activities within the Northern and Eastern Colorado desert units includes grazing, mineral exploration, operation and maintenance of utility facilities and corridors, dispersed and permitted recreation (e.g., hunting, picnicking, camping, dual sport events, and rock hounding), scientific study, and OHV activities. These activities impact wildlife to varying degrees through degradation and loss of habitat. However, the adherence to the provisions of the NECO amendment to the CDCA land use plan,

the 2005 Biological Opinion for the CDCA plan (1-8-04-F-43R) (U.S. Fish and Wildlife Service 2005), and cancellation of the Ford Dry Lake Allotment would, to some extent, offset the cumulative impacts to the population viability issues caused by past, present and reasonably foreseeable future activities.

Consultation:

On June 17, 2002, the Service issued a biological opinion addressing the effects on desert tortoise from implementing of the Bureau's California Desert Conservation Area Plan as it has been formally amended since 1980, modified by previous consultations related to grazing in the western Mojave Desert, modified by proposed interim conservation measures, and as proposed to be modified by the Northern and Eastern Mojave Desert Management Plan and the Northern and Eastern Colorado Desert Coordinated Management Plan. The June 17, 2002 biological opinion concluded that implementation of the California Desert Conservation Area Plan, as amended and proposed for amendment, was not likely to jeopardize the continued existence of the desert tortoise and was not likely to destroy or adversely modify designated critical habitat of the desert tortoise.

On May 27, 2003 the Center for Biological Diversity, the Sierra Club, and the Public Employees for Environmental Responsibility, and Desert Survivors filed a lawsuit in the U.S. District Court, Northern District of California against the Bureau and the Service challenging issuance of the June 17, 2002, biological opinion and implementation of the California Desert Conservation Area Plan (as amended). On June 20, 2003, the American Motorcycle Association District 37, Off-road Business Association, San Diego Off-road Vehicle Association, and Utah Shared Access Alliance filed a lawsuit in U.S. District Court of Utah against the Bureau and the Service for the alleged failure to implement the Recovery Plan for the desert tortoise. The suit was later transferred to the Northern District of California and amended to challenge the biological opinion.

In an August 3, 2004, order, the District Court held that the Service had relied on an invalid regulatory definition of "adverse modification" while analyzing effects to designated critical habitat in the June 17, 2002, biological opinion. The biological opinion was vacated and remanded to the Service with instructions to reissue the biological opinion after applying the appropriate definition of adverse modification, which the District Court defined as "a direct or indirect alteration of critical habitat which appreciably diminishes the value of that habitat for either the survival or recovery of a listed species."

On March 31, 2005, the USFWS issued its new Biological Opinion for the California Desert Conservation Area Plan [Desert Tortoise] (1-8-04-F-43R). The terms and conditions and reasonable and prudent measures addressing desert tortoise recovery of this BO are incorporated into the proposed action. The Service's BO concluded that implementation of the CDCA Plan, as modified by NECO, is not likely to jeopardize the continued existence of the desert tortoise and is not likely to destroy or adversely modify the critical habitat of the desert tortoise.

On January 31, 2007, the Bureau notified the Service of its findings that cancellation of the Ford Dry Lake Allotment lease would have “no effect” on the desert tortoise and its habitat.

Maps:

See Appendix I

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8. VEGETATION INCLUDING INVASIVE/NON-NATIVE SPECIES

Affected Environment:

Dominant ephemeral species are woolly plantain (*Plantago patagonica*) and (*Schismus barbatus*) which are the primary ephemeral forage species. This allotment is within the vague boundary between the lower Colorado subdivision of the Sonoran Desert and the Mojave Desert. Dominant ephemeral species are woolly plantain (*Plantago patagonica*) and *Schismus barbatus*, which are the primary ephemeral forage species. The dominant woody species include creosotebush (*Larrea tridentata*), ironwood (*Olneya testota*), and blue paloverde (*Cercidium floridium*). The dominant perennial grass species is galleta grass (*Hilaria jamesii*). Shrub species include cheesebush (*Hymenoclea salsola*), *Euphorbia polycarpa*, *Palafoxia arida*, *Atriplex polycarpa*, and white bursage (*Ambrosia dumosa*). Vegetative trend data for this allotment is sparse. Due to the lack of any large disturbances in the area and that it has been grazed once in the past nine years, downward vegetative trends are not observed. There are no known threatened or endangered plants on this allotment.

Most of the Ford Dry Lake allotment contains varying densities of schismus (*Schismus barbatus* and *Schismus arabicus*). These ephemeral exotic grasses are native to the Mediterranean and Arabian regions and are present in many arid sites throughout the southwest. While these grasses favor disturbance, they also appear to have invaded many areas that have not experienced disturbance, such as nearby areas of desert pavement. These grasses are listed as invasive weeds by the California Exotic Pest Plant Council.

Environmental Consequences:

a. Impacts of Proposed Action Alternative.

By canceling grazing, vegetation favored by sheep would increase including possible exotic plant species. No annual or perennial vegetation would be trampled or removed by sheep. In addition, there is the possible influence of reduction or elimination of transporting new species in from other regions, thus moving seed from infested sites to non infested site would be minimized.

b. Impacts of No Action Alternative.

It is undetermined how much grazing practices contribute to the introduction and/or spread of non-native invasive species. It is possible that livestock can spread invasive species through seeds sticking to their hide, or deposition of seed through their digestive system. Improper grazing practices reduce the diversity, and reproductive abilities of native, desert plant communities.

Overall, the current densities of non-native invasive species on the allotments being analyzed in this document are considered moderate. Annual fluctuations in densities are directly influenced by the amounts of late winter, early spring precipitation.

Implementation of the pre existing terms and conditions, including Standards and Guidelines and biological opinion stipulations, along with grazing strategies that require proper sheep distribution and the long periods of no grazing years would minimize impacts to native plant communities, and would ensure that sheep grazing would have only a slight risk of introducing and/or spreading non-native/ invasive species on the Ford Dry Lake Allotment.

No federally listed plant species are known to exist in this area. The BLM sensitive species, Alverson's foxtail cactus (*Escobaria vivipara alversonii*) potentially occurs here. It is unlikely to be eaten by sheep but may be trampled by them.

Cumulative Impacts

Cumulative impacts, as defined by Council of Environmental Quality regulations in 40 CFR 1508.7, are "the impacts on the environment which result from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions

regardless of what agency (Federal or non-Federal) or persons undertakes such other actions.” The cumulative impact analysis for the Ford Dry Lake Allotment is tiered to the analysis of the NECO plan as described below.

NECO Plan - Other past, present, and reasonably foreseeable future actions

The NECO described the current environment of the planning area as having been broadly influenced by past activities occurring prior the passage of FLPMA in 1976, such as development of major highways, railroads, and communities in the region. Other important activities related to the baseline condition of the planning area have included mining, military use, recreation, lands actions, wildfire, actions related to Joshua Tree National Park, and livestock grazing. NECO further addressed recent and reasonably foreseeable future changes in land use resulting from FLPMA and other resource management related laws, including State and Federal Endangered Species Acts and the California Desert Protection Act. NECO considered BLM’s six CDCA regional plan amendments that were approved or under preparation as key determinants of environmental conditions (Proposed Plan/FEIS, pages 4-2 through 4-5 and pages 4-170 through 4-176).

NECO Plan – Cumulative Impact

The NECO Plan analyzed the impacts to air quality, water quality, soils, biological resources, wilderness, livestock grazing, cultural, and socio-economic conditions. The main conclusion was that the NECO plan, as well as other CDCA plan amendments, provides new conservation strategies for plant and animal species that have an overall beneficial cumulative impact on many resources (NECO Proposed Plan/FEIS, pages 4-176, 177).

NECO specifically recognized the cumulative conservation benefits of other past actions by Congress in setting aside large areas within the CDCA for parkland, military use, and wilderness; benefits derived from designation by US Fish and Wildlife Service of millions of acres of critical habitat in the CDCA; and benefits resulting from the implementation of management actions established under BLM land use planning for six regional plan areas in the CDCA. For example, NECO identified cumulative conservation benefits resulting from the restrictions BLM places on OHV use throughout the CDCA (which reduced by 5 % the routes available for OHV use in the NECO plan area), closure of washes to OHV use in Chemehuevi DWMA, elimination of most wild burro herds, elimination of 10 grazing allotments and reallocation of forage on remaining allotments including elimination of ephemeral allocations, and substantial restrictions on grazing within DWMA’s (Proposed Plan/FEIS, pages 4-176,177).

Past impacts to vegetation include activities such as mining, vehicle use, grazing, and military maneuvers. Grazing of sheep in the Colorado Desert has occurred continuously since the mid-1800’s (Lovich, J.E., and D.A. Bainbridge 1999). Early grazing in the Mojave and Colorado occurred on public lands and was unrestricted. In response to deteriorating conditions, the Taylor Grazing Act was passed in 1943. Three years later, the BLM was created when the Government Land Office and the Grazing Service merged in 1946.

Ford Dry Lake Allotment

