1.0 Purpose and Need

1.1 Introduction

The document consists of a proposed plan and alternatives for public lands in the Northern and Eastern Mojave (NEMO) planning area, and a final environmental impact statement (FEIS) which analyzes the effects of all alternatives for public review and comment[1]. The Northern and Eastern Mojave (NEMO) planning area encompasses 3.3 million acres of land of which 2.7 million acres[2] are public lands[3]. This planning area is located in the Mojave Desert in southeastern California adjacent to Nevada (Figure 1, Chapter 8.

1.2 Planning Area

The public lands in the NEMO planning area are intermingled with private and state holdings, but exist generally in three large blocks split by two large National Park Service Units: Death Valley National Park and the Mojave National Preserve[4]. The NEMO borders Nevada on the east, Fort Irwin and the West Mojave planning area on the west, and I-40 and the Northern and Eastern Colorado planning area on the south. The northern planning area boundary is the California Desert Conservation Area (CDCA) boundary, formed along the northern end of the Inyo Mountains and its adjacent valleys. The Bureau of Land Management under the jurisdiction of the Las Vegas Field Office also manages most of the adjacent land in Nevada.

1.3 Purpose, Need and Scope

The California Desert Conservation Area (CDCA) is one of two national conservation areas established by Congress at the time of the passage of the Federal Land and Policy Management Act (FLPMA) [5]. The CDCA Plan recognized that as conditions change and information is gathered and updated, modifications would be made to the Plan. As a result, plan amendments have been proposed to the CDCA Plan on a fairly regular basis. The BLM, California Desert District has initiated plan amendments to the CDCA Plan for the NEMO planning area in accordance with Chapter 7 of the CDCA Plan (1980) and with BLM planning regulations outlined in 43 Code of Federal Regulations (CFR) 1610.5-5.

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[1] The EIS is being prepared in accordance with the National Environmental Policy Act of 1969 (42 U.S.C. 4321, et seq.) and implementing regulations (40 CFR 1500, et seq.), to address the potential impacts of all of the alternatives, including No Action.

[2] This revised figure includes two Wildlands/Catellus regional acquisitions and one exchange, completed in 2000.

[3] Public lands as refereed to in this document are those federal lands managed by the BLM

[4] Mojave National Preserve and Death Valley National Park have each completed separate Environmental Impact Statements and General Management Plans covering the lands within their jurisdictions in the NEMO planning area in the spring of2002

[5] Federal Land Policy and Management Act of 1976. Title VI. Section 601. 90 Stat. 2743,PL 94-579.

Nine events have created changes in circumstances on public lands in the Northern and Eastern Mojave planning area that triggered proposed plan amendments to the CDCA Plan that are presented and analyzed in this document. These events provide the purpose and need for this planning effort and include:

- Adoption of National BLM policy directing the development of standards for public land health, and guidelines for grazing management on public lands
- Listing of the desert tortoise (*Gopherus agassizii)* as threatened under the state and federal Endangered Species Act(s) (ESAs), and designation of critical habitat for this species and publication of a recovery plan
- Listing of the Amargosa vole (*Microtus californicus scirpensis*) as endangered under the state and federal ESAs, plus designation of critical habitat for this species and publication of a recovery plan
- Listing of the Amargosa niterwort (*Nitrophila mohavensis*) as endangered under the state and federal ESAs, listing of Ash Meadows gumplant (*Grindelia fraxino-pratensis*) and spring-loving centaury (*Centaurium namophilum var. namophilum*) as threatened under the federal ESA, and designation of critical habitat for the former two plant species
- Increasing concern for population status and the possible need for the listing of several bat species as threatened or endangered under the state and federal ESAs
- Passage of the California Desert Protection Act of 1994 (CDPA) and the need to conform the CDCA plan to it, including the need to address competitive speed events now that a portion of the Barstow-to-Vegas OHV racecourse is in the Mojave National Preserve
- Implementation of BLM policy directing all specific routes of travel designations to be completed as land-use planning decisions
- Adoption of new BLM policies directing the elimination of landfills on public lands, either through closure or transfer out of federal ownership
- Implementation of BLM policy to identify potentially eligible rivers on BLM- managed lands and develop suitability analyses for the Wild and Scenic Rivers System

Based on the above events and circumstances, BLM has a need to:

1. Adopt public land health standards for all resources and uses on the public lands in the Northern and Eastern Mojave planning area and grazing guidelines to be consistent with Departmental guidance and provide a landscape basis for resource management. Such standards would be developed with the regional Resource Advisory Council for the CDCA – i.e., the California Desert Advisory Council.

   The grazing regulations at Part 43 CFR 4180 require that State Directors, in consultation with Resource Advisory Councils, develop Standards of Rangeland Health and Guidelines for Grazing management. The grazing regulations also require that the standards be in conformance with the "Fundamentals of Rangeland Health" and that the standards and guidelines address each of the "guiding principles" (see Appendix P) as defined in the regulations.

During the development of the grazing regulations it was recognized that the fundamentals of rangeland health and guiding principles for standards address ecological components that are affected by all uses of public rangelands, not just livestock grazing. BLM national direction, through such mechanisms as the BLM Strategic Plan, is to address the health of all public lands in the development of standards. Application of the principles contained in subpart 4180 to resources and uses of public rangelands other than authorized grazing activities require separate action by BLM or the Department.

Additional region-wide review is underway and will be considered before adoption of regional standards, or conversely adoption of the BLM fallback standards in the California Desert Conservation Area.

2. Achieve recovery of the desert tortoise in the Eastern Mojave Recovery Unit[6] and comply with the Endangered Species Act. All action alternatives propose to meet the goals and objectives of the U.S. Fish and Wildlife Service's 1994 *Recovery Plan for Desert Tortoise (Mojave Population)* (Appendix A, p. A-1) and to do so within the context of FLPMA[7], BLM's multiple-use mandate. FWS also proposed to include consideration for recovery strategies that are being pursued on adjacent jurisdictions.

   In 1990 the U. S. Fish and Wildlife Service (FWS) designated the desert tortoise as a federally-threatened species and in June 1994, published *the Recovery Plan for Desert Tortoise* as required by the Federal Endangered Species Act. The recovery plan established recovery goals and recommended site-specific management actions to achieve the goals based on desert-wide declines in desert tortoise populations.

3. Recover the locally endemic Amargosa vole, preserve its remaining habitat, and comply with the Endangered Species Act. All action alternatives seek to meet the goals and objectives of the U.S. Fish and Wildlife Service's 1998 recovery plan for the Amargosa vole, Included in the alternative is consideration for private land activities on adjacent lands in critical habitat, and other regional and local land uses. Recommended management actions of the U.S. Fish and Wildlife Service are considered for adoption, based on the high level of threat and the low full recovery potential.

[6] The preferred alternative is to propose that USFWS modify recovery unit boundaries so that all of NEMO is part of the Eastern Mojave Recovery Unit. Currently a portion of the planning area is in the Northern and Eastern Mojave Recovery Unit, but it forms a cohesive unit with the rest of the Eastern Mojave Desert tortoise habitat. Strategies for the Northern and Eastern Mojave Recovery Unit are focused firstly in areas northeast of Las Vegas, and secondarily, in an area north of Nipton Road in an area of Nevada that is not adjacent to the state line.

[7] Title 43 CFR, Subpart 8350, specifically addresses designation of management areas. NWSRS study guidelines have also been published in Federal Register Volume 7, Number 173 (September 7, 1982), for public lands managed by the U.S. Departments of Agriculture and Interior. Additional guidance on wild and scenic rivers is provided in BLM Manual 8351.

In 1984, critical habitat was designated for the state and federally endangered Amargosa vole, based on the relict nature of this endemic species. Long-term changes in distribution of the species have isolated this population. More recent changes in land uses and decreased availability of undisturbed riparian habitat now imperil the remnant population. This vole is a subspecies of the California vole, which is limited in range to the central Amargosa riparian corridor. Amargosa Canyon and Grimshaw Lake Natural Areas are Areas of Critical Environmental Concern in the central Amargosa riparian corridor that have provided limited conservation strategies for the Amargosa vole, as species distribution and population dynamics were not well known. The FWS finalized the recovery plan for this species in 1998, and has identified specific objectives for the recovery of the species.

4. Protect listed and other sensitive plant species and comply with the endangered Species Act All action alternatives seek to meet the goals and objectives of the U.S. Fish and Wildlife Service's Recovery Plan for five plants of Ash Meadows, two of which are in Carson Slough, California. Some alternatives include consideration for activities that are being pursued on adjacent lands in critical habitat, and other regional and local land uses. Recommended management actions of the U.S. Fish and Wildlife Service are considered for adoption, based on limited distribution of the plant species and potential regional threats to water supply.

   Federally-listed plants, including the endangered Amargosa niterwort, the threatened Ash Meadows gumplant, and the BLM-designated sensitive Tecopa birdsbeak are found in the lower Carson Slough drainage of the Amargosa River and the adjacent Franklin Lake Playa. There is also high potential for federally threatened spring-loving centaury in the area. These species are dependent on the alkaline soils and moisture regime found in this unique area. The majority of the area in Carson Slough, located on the northern portion of Franklin Lake Playa, has long been recognized as a unique plant community and is BLM-designated as the Salt And Brackish Water Marsh Unusual Plant Assemblage (UPA) in the CDCA Plan.

   The Carson Slough tributary and its upstream source waters in Ash Meadows National Wildlife Refuge are also the source waters for the central Amargosa River and the area proposed for Amargosa vole recovery. The strategies for the plants and the vole must be coordinated.

5. Better protect sensitive bat species and habitat in the Silurian Hills area, particularly during times when roosting and reproduction is occurring.

   Eight bat species are known to occur in the Northern and Eastern Mojave planning area and have been designated as BLM-California sensitive. The bat species use the Amargosa River and Kingston Wash watersheds and particularly, habitat on the north and west facing slopes of the Kingston Mountains within the Hollow Hills and Silurian Hills. Cliff faces and crevice slopes are natural roosts for many bat species. The roosts are abundant in the Silurian Hills. There are many mine shafts and adits in the Silurian Hills, and at least five bat species are known to utilize the shafts and adits as roosting, hibernation and maternity sites.

6. Provide multiple-use zoning of the public lands that have previously been under interim management for wilderness review, and have now been released from wilderness consideration. Provide other actions to bring the CDCA Plan into compliance with the California Desert Protection Act. Some of these are plan maintenance actions that are not discretionary (although they may have triggered related, discretionary, proposals) and are listed in Appendix M, with the following primary exceptions. Discretionary actions that are discussed in more detail include: a)) determination of permanent Multiple Use Classes for approximately 475.000 acres of public lands released from wilderness study status: b)) evaluation of remnant public lands from the California Desert Protection Act that are special areas, and c)) identification of a long-term strategy for organized competitive events, including specifically the Barstow-to-Vegas (B-to-V) motorcycle race course in the NEMO planning area.

   On October 31, 1994 Congress passed the California Desert Protection Act affecting millions of acres of public lands in the California Desert. Lands released from wilderness study status by the California Desert Protection Act can no longer be managed under MUC "Controlled", which is reserved for wilderness or wilderness study area lands, consistent with existing Plan guidance. A range of alternatives is considered, and changes made will be reflected in the CDCA Plan.

   Five Areas of Critical Environmental Concern (ACECs) were affected by the expansion of the National Park Service jurisdiction in the NEMO planning area (Cerro-Gordo, Clark Mountain, Greenwater Canyon, Saline Valley, and Surprise Canyon). The Area of Critical Environmental Concern (ACEC) is a BLM management tool that is not utilized by the National Park Service. Therefore, a preliminary evaluation of these ACECs was conducted to determine whether remaining lands administered by the BLM warrant ACEC status. Four of the ACECs contain a substantial number of the values for which they were originally designated. The fifth is the Greenwater Canyon Cultural ACEC, which is considered further in this planning effort, in terms of whether it has sufficient sensitive values on BLM-administered lands to meet ACEC importance and relevance criteria.

   In the California Desert Protection Act, the existing B-V motorcycle race course was severed by the creation of the Mojave National Preserve, as delineated in the CDCA Plan. This barrier to use of the B-V has been overcome in the past by reroutes of the course that did not necessarily follow the CDCA Plan course. Another barrier to use of the existing race course is that neither the B-V nor other long-distance competive events[8] have been run through the NEMO planning area since documentation of impacts to desert tortoise habitat in the post-B-V event report in 1989. The race event occurred shortly after the listing of the desert tortoise. In the NEMO planning area, almost 90 percent of the course passes through prime desert tortoise habitat.

   Alternatives address these issues with different approaches, but all alternatives must, at a minimum, be consistent with other purposes and needs identified in NEMO. These include the purposes and needs identified for standards and guidelines, and those identified for threatened and endangered species conservation and recovery, including for desert tortoise.

[8] Generally two shorter distance competitive events are run within Dumont Dunes OHV Open Area annually.

7. Designate routes of travel within the Northern and Eastern Mojave planning area in conformance with BLM policy. Develop an approach to routes of travel for all Multiple Use Classes (MUCs) that provides maximum flexibility to choose a route network meeting the criteria in the Code of Federal Regulations and the CDCA Plan.

   By BLM policy, all routes of travel designations (motorized) are now made as land-use planning decisions. In the California desert, motorized vehicle access and other land uses enjoy a close relationship. Motorized travel is most often the focus of recreational activities such as driving for pleasure or in pursuit of specific recreational hobbies, participating in dual-sport motorcycle events, or racing in organized events. Motoring is also a means of getting to recreation sites at campgrounds and trailheads. Routes of travel designations also directly affect access, and thus opportunities, for nonrecreational pursuits such as mining exploration, conduct of ranching operations and other land uses, and indirectly, development of adjacent private lands. Since all routes cannot be designated in the timeframe of this planning effort, the process for route designation will be determined, and route designation in the first priority area (Category I habitat) will be implemented with this effort. That would leave approximately 1 million acres for future route designation within an established schedule.

   Prior to the approval of the CDCA Plan, BLM managed access, recreation, and vehicle use under the Interim Critical Management Program (ICMP) and guidelines set forth in Executive Orders 11644 (Use of Off-road Vehicles on Public Lands, Nixon, 1972) and 11989 (Off-road Vehicles on Public Lands, Carter 1977). The ICMP and the CDCA Plan provided interim designations of routes within the boundaries of the CDCA. These designations were to be in effect until implementation of updates occurred (1982 CDCA Plan Amendment ROD, p. 20). The CDCA Plan was amended in 1982 to ensure that the rules in the Code of Federal Regulations (CFR) would be followed during route designations.

   Within this framework, the criteria of 43 CFR 8342.1 and the three goals for routes of travel designation were identified in the CDCA Plan's Motor-Vehicle Access Element, as amended in 1985. These included:

   - Provide for constrained motorized vehicle access in a manner that balances the needs of all desert uses, private landowners, and other public agencies
   - When designating or amending areas of routes for motorized vehicle access, to the degree possible, avoid adverse impacts to desert resources.
   - Use maps, signs and published information to communicate the motorized vehicle access situation to desert users. Be sure all information materials are understandable and easy to follow.

   The CDCA Plan required designation of areas and routes. Subsequent to designation of "closed", "limited" or "open" areas for motor vehicle use, the CDCA Plan required that on-the-ground route designations occur in areas designated "limited" for motorized-vehicle use, and these are the areas where routes of travel designation would occur. Areas closed for motorized vehicle use in the Northern and Eastern Mojave planning area include approximately 1.2 million acres of designated wilderness. Areas open for motorized vehicle use include Dumont Dunes OHV Open Area and Silurian Dry Lake Bed.

The remaining 1.4 million acres are limited for motor vehicle use and will be determined in the Northern and Eastern Mojave Desert in this planning effort on a specified schedule. Within Multiple-Use Class (MUC) "L" (Limited), a route network comprised of specific "approved" routes would be identified, while a route network comprised of existing routes of travel could be utilized in Multiple-Use Classes "I" (Intensive), "M" (Moderate), and "C" (Controlled). "Existing routes of travel" were defined as routes existing before December 31, 1978, the date of full aerial photo coverage of the CDCA.

The "existing routes of travel" approach for MUC "Intensive" and "Moderate" has not proven to be adequate for choosing the best route network, but gives a clear baseline for inventory, albeit an inventory that is not always satisfactory to all public users. The approach identified for use within MUC "Limited" of "approved" routes is more flexible, which means it is also more flexible with respect to providing the baseline inventory.

8. Make CDCA Plan changes so BLM can continue cooperative activities with local jurisdictions and comply with new Department of Interior policies on landfills.

   In 1993 and 1994, the Department of the Interior implemented new policies, which require the BLM to either convey out of federal ownership by patent or close existing landfills on public lands. In 1995, the CDCA Plan was amended to reflect this policy by not allowing new landfills on public lands. "Closure" is a technical process that can take many years and involves the oversight of state regulatory agencies. Patenting is the preferred approach of most county operators. Issuance of patents (transfer of ownership) is required prior to any expansion of current landfilling activities.

   Either of these options requires several steps be taken. This planning effort addresses the first step in this process – the decision on what CDCA Plan zoning would provide for continued use or closure, and/or potential conveyance of these lands. Depending upon the alternative selected, closure plans and/or land transfer audits would include additional site-specific environmental review and coordination with the operator, i.e. the County, to determine the best future course of action.

9. Identify potential additions to the National Wild and Scenic River System (NWSRS) and comply with Section 5(d) of the Wild and Scenic Rivers Act of 1968 (16 United States Code 1271-1287, *et seq*) [9]. During the NEMO planning process, BLM is taking comments on the eligibility determinations and the classifications for the identified river segments. This information will be used in subsequent Environmental Impact Statement(s) that determine whether any of the rivers are suitable for addition to the National Wild and Scenic River System, and with what classifications.

[9] Title 43 CFR, Subpart 8350, specifically addresses designation of management areas. NWSRS study guidelines have also been publishes in Federal Register 7:173 September 7, 1982, for public lands managed by the U.S. Departments of Agriculture and Interior. Additional guidance on wild and scenic rivers is provided in BLM Manual 8351.

During analysis of the Amargosa vole amendment, the Amargosa River was identified as potentially eligible for Wild and Scenic River designation based on its Outstandingly Remarkable Values. Two other rivers, Cottonwood Creek and Surprise Canyon Creek in the northern portion of the NEMO planning area were also identified as having Outstandingly Remarkable Scenic Values. Since these three rivers had been identified as potentially eligible under the NWSRS, in the interim period until a suitability determination is made, the rivers must be managed to prevent degradation of their Wild and Scenic River Outstandingly Remarkable Values.

1.4 Planning Process Overview

The land-use planning and the CDCA plan amendment process in the NEMO planning area include nine steps. This process is iterative rather than linear, since information does not reveal itself neatly from one step to the next. The nine steps are:

1. Issue identification - Major issues drive the planning process and indicate concerns that the BLM, other agencies, and the public may have regarding the management of resources in the NEMO planning area. An issue is defined as an opportunity, conflict, or problem pertaining to the management of public lands and associated resources. The major planning issues are discussed in more detail in the next section, and are summarized in the plan goals at the end of this chapter. For a list of all issues identified during the public scoping process for the NEMO planning effort and how they are being addressed, refer to Appendix U.
2. Identification of planning criteria - The BLM planning criteria for this effort were derived from public and agency scoping beginning in the summer of 1995, laws, Executive Orders, regulations, recovery plans, planning principles, BLM guidance and available resource information for the area. They are listed in Appendix L.
3. Inventory and data evaluation - Using the planning criteria, specialists reviewed and evaluated available data, including field examinations, published and unpublished studies, and consultations with individuals and staff from other agencies and organizations. An interagency biological team was formed to evaluate biological data and develop recommendations for desert tortoise and provide input on other threatened and endangered species issues. See the reference list at the end of the document in Chapter 6 for data sources utilized in the compilation of this document. Some data is also referenced in the Current Management Situation for the desert tortoise (Appendix A).
4. Analysis of the management situation - An analysis of the general management situation summarizes the condition and capabilities of the resources in the NEMO area (Appendix K). It tiers from information in the CDCA Plan of 1980 and associated technical appendices that were prepared in conjunction with CDCA Plan development. In addition, a Current Desert Tortoise Management Situation was prepared under separate cover by L. Foreman in April 1998. This and other reference documents are available for review at BLM offices in the California Desert District (Ridgecrest, Needles, Barstow or the District Office in Riverside). These analyses provide a basis for consideration of developing and evaluating alternatives and are generally incorporated into the "No Action" Alternative and the affected environment, except where indicated.

5. Formulation of alternatives – After the issues were identified for the eight major areas of change to be addressed in this document, planning criteria, concerns raised during scoping, and a range of alternatives were identified. To be valid, each alternative proposed for the plan has to adequately address plan goals and associated issues, while emphasizing different management strategies. A "No Action" Alternative (Alternative 1) is required by the National Environmental Policy Act and may be limited to the extent it can fulfill these requirements. The alternatives are discussed in detail in Chapter 2 of this document.
6. Analysis of the effects of the alternatives – an impacts analysis of the alternatives, is located in Chapter Four, is described by resource or use that may be affected to facilitate comparison. Site-specific environmental review will be completed where follow-up projects and analyses are proposed that are not included with this document.
7. Selection of the preferred alternatives – The California Desert District Manager selected the preferred alternatives based on the issues and information identified through the planning process. Coordination and consultation with other agencies and entities; and the impacts analyses of the alternatives helped to conclude that the preferred amendments are the best alternatives. The Draft Plan/Environmental Impacts Statement (EIS) was distributed to the public for a 90-day review and comment period.
8. Selection of the Resource Management Plan – Public comments were analyzed in depth (Appendix U), and the alternatives were modified as appropriate to serve as a basis for the management plan. A 60-day Governor's Consistency Review then will occur. The proposed plan amendments and final EIS will be distributed to the public in the final EIS. A 30-day protest period will be allowed before the plan is adopted. A Record of Decision (ROD) will be published after consideration of all comments or protests.
9. Monitoring and Evaluation – This step involves monitoring and evaluating the resource conditions as the plan is implemented (Chapter 7). If monitoring shows that resource issues are not being satisfactorily resolved or that the desired results outlined in the plan are not being met, the plan may be amended or revised.

1.5 Major Issues

The following is a discussion of the major issues included in this plan.

1.5.1 Adoption of Standards and Guidelines

BLM staff, in consultation with the California Desert District Advisory Council, has developed "Standards of Public Land Health" which satisfy both the requirements of the Bureau Strategic Plan, and comply with the fundamentals of rangeland health. Each of the guiding principles as required by the grazing regulations is addressed. The guidelines for grazing management address each of the guiding principles identified in the grazing regulations. At this time there are no plans to develop guidelines for other activities.

A set of national fallback standards of rangeland health applicable in grazing allotments and guidelines applicable to livestock grazing management was established in 43 CFR 4180.2. They represent the "No Action" Alternative described in Chapter 2. One of the major issues is that the fallback standards of rangeland health do not fully address plan goals, since BLM national direction is to address the health of all public lands in the development of standards. A second issue is that BLM would develop the standards with the assistance of Regional Advisory Councils (RACs). In the CDCA, the Desert Advisory Council (DAC) is also the Regional Advisory Council. The fallback standards were not developed at the regional level, and do not have DAC input.

Additional region-wide review is underway, and will be considered before adoption of regional standards or adoption of the BLM fallback standards in the California Desert Conservation Area.

Questions to be addressed in this planning effort include:

- Do the proposed regional standards comply with guidance in the BLM's strategic Plan? (See www.blm.gov and click on Strategic Plan to view 2000 BLM Strategic Plan.)
- Are proposals to address other plan goals consistent with public land health standards that are proposed for adoption under each alternative?
- Will the adopted standards provide an adequate tool for assessing public land health at the landscape scale?

1.5.2 Threatened and Endangered Species Conservation and Protection: Desert Tortoise

Major issues contributing to desert tortoise declines include habitat disturbance and fragmentation, direct and indirect mortality, potential competitors for forage (i.e., livestock grazing and burros), and long-term habitat degradation.

Alternatives are developed in this document that address a consistent approach for permitted uses where a limited and defined amount of habitat disturbance is involved. In addition, alternatives are developed to ensure that, cumulatively, permitting of uses will not contribute to substantial fragmentation of prime (critical and Category I) desert tortoise habitat[10]. Activities that are not as quantitatively predictable in scope, but which may result in large areas of habitat disturbance (e.g., wildfire suppression) are treated specifically. Route designation also is proposed for areas with Category I desert tortoise habitat within proposed DWMAs, in part to limit habitat disturbance, particularly in desert washes that provide valuable habitat components.

[10] The only Category II habitat in the NEMO planning area is in the Mojave National Preserve, which is addressed in a separate National Park Service planning effort covering the Preserve.

Direct and indirect mortality are addressed through proposals to fence freeways and other major roads. In addition, control of other sources of direct mortality from highways, roads and other routes is addressed within prime desert tortoise habitat, including through management of numbers of routes and imposing speed limits on those routes. Alternatives also are developed to address mortality caused by raven predation on desert tortoises.

Since there is overlap in what desert tortoises and cattle eat and a limited amount of forage is available on public lands during certain seasons and dry years, management of forage used by livestock is considered essential to long-term recovery of the desert tortoise. Desert tortoises are considered substantially more susceptible to mortality from stresses, such as disease, drought, low nutritional intake, and air pollution, when stresses are compounded. Livestock management currently includes limitations on forage use of key perennial species, seasonal use and drought limitations. Strategies to manage range improvements (e.g., range waters) would minimize conflicts with desert tortoise survival.

Burro conflicts and management strategies are similar to those for livestock, because they are in large part forage-based. However, the scope of the burro issue is limited primarily to the area north of highway I-15 where the overlap with prime desert tortoise habitat occurs (i.e., the Clark Mountain Herd Management Area). Burros have few natural predators in the NEMO planning area. Population numbers and their Herd Management Areas (HMA) have to be regularly monitored to ensure that they are trending toward the Appropriate Management Level (AML).

Alternatives in this document address the numbers, locations, levels and seasons of use for both livestock and burros to minimize conflicts with desert tortoise. With the designation of the Mojave National Preserve and the National Park Service policy of burro removal, the development of a management strategy is a consideration in alternative development and evaluation in desert tortoise habitats.

Long-term habitat degradation can occur when productive plant communities change on a landscape scale due to spreading non-native species that replace native species, especially perennials. Several factors contribute to the spreading of exotic species, including cattle and burro grazing, wildfire and non-native seed dissemination along regularly disturbed areas, such as routes. The issue of landscape scale is also addressed through alternatives that propose a cumulative approach to habitat disturbances.

Questions to be addressed in this planning effort include:

- What level of habitat disturbance can be tolerated in prime (Category I) desert tortoise habitat that limits cumulative habitat fragmentation and disturbances to assure some level of uses can continue? When disturbances occur, what strategies can be pursued to assure lands are rehabilitated to suitable habitat?
- What fencing strategy should be adopted to minimize desert tortoise mortality on major roads that pass through prime tortoise habitat?
- What strategy should be adopted to address hatchling and juvenile tortoise predation by ravens?
- What route designation choices are appropriate in the highest value tortoise habitat? If the BLM finds areas where overall route density is not optimal, which routes should be kept open and which routes should be closed and rehabilitated? Which washes should the Bureau designate as open, closed or limited in Category I habitat?
- Where, in relation to existing routes, should vehicles be allowed to park and camp within Category I habitat?

- What strategies are most appropriate for livestock grazing and other forage management within Category I, and within other desert tortoise habitat to minimize conflicts? Likewise, what strategy should we pursue for burro management in Category I and other desert tortoise habitat north of highway I-15 to minimize conflicts?
- What strategies should we adopt to minimize the spread of non-native plants in Category I desert tortoise habitat?
- What land tenure strategy should be pursued in Category I desert tortoise habitat?

1.5.3 Threatened and Endangered Species Conservation and Protection: Amargosa Vole

Major issues contributing to the threats to this relict population, identified in the NEMO plan, include potential loss of riparian and wetland habitat, disturbance and fragmentation of habitat, fragility of vole population and genetic dynamics, potential conflicts and vole response to other uses, and flooding in the riparian corridor. Associated with vole recovery during analysis of the riparian corridor in this planning effort, three segments of the Amargosa River were identified as eligible for Wild and Scenic Rivers suitability determinations (See 1.3.11 and Appendix O). Questions to be addressed in this planning effort include:

- What area should be identified for protection of Amargosa vole, related riparian, and watershed values to safeguard T&E and sensitive species populations, given the private lands and uses around Tecopa Hot Springs and the town of Shoshone?
- What land tenure strategy should be pursued in critical habitat and other riparian lands to provide additional habitat for the endangered vole and other sensitive species?
- What strategies should be pursued to continue and expand the rehabilitation of native riparian vegetation within the Amargosa watershed?
- How should we monitor and evaluate success for such a small relict population?
- What limitations on water uses and protective measures for water quality and quantity should be pursued within Amargosa vole habitat and the surrounding riparian corridor? Should this strategy be linked to the strategy for the Carson Slough in the Upper Amargosa to provide a watershed approach to common issues?
- What actions should be considered to address major issues during ACEC management planning?

1.5.4 Threatened and Endangered Species Conservation and Protection: Carson Slough Plants

Questions to be addressed in this planning effort include:

- What areas should be identified for protection of listed plants , related riparian, and watershed values to safeguard T&E and sensitive populations, given the historic and recent uses around Carson Slough upstream flow of the Amargosa River?
- What strategies should be pursued to help ensure a continuing riparian flow, vegetation, and soil substrate necessary for T&E plants to survive and thrive? Should this strategy be linked to the strategy for the Central Amargosa to provide a watershed approach to common issues?
- What actions should be taken to address trampling and grazing of T&E plants by wild horses?

- What mechanisms can be identified to address damage to T&E plants from surface disturbing activities, including those associated with route proliferation during exploratory mining activities?

1.5.5 Threatened and Endangered Species Conservation and Protection: Silurian Hills Bats

Issues to be addressed in the planning effort include direct and indirect mortality, protection of new habitat and loss or disturbance of existing habitat, and potential conflicts and bat responses to other uses. The main threats to bats and their habitats include:

- Vehicle route proliferation and associated resource impacts in the vicinity of suitable bat roost sites (rock crevices, cliffs, mines) and foraging areas (sand dunes, washes, springs, playas, etc.);
- Disturbances of rock crevice and cliff habitats resulting from other uses, particularly by mining;
- Human visitation of mine shafts and adits;
- Dumping of trash and contaminants, and the burning materials, in mine shafts and
- Camping adjacent to bat habitat.

Questions to be addressed in this planning effort include:

- What land use management tools will provide adequate protection for maternity, hibernation and day roosts?
- Does a case-by-case or programmatic approach make more sense to address potentially conflicting uses and bat management?

1.5.6 CDCA Plan Changes Resulting From the California Desert Protection Act: Released Lands

Specifically, in the NEMO planning area the CDPA:

- Created the Mojave National Preserve as a new unit of the National Park System and designated 50% of its lands as wilderness;
- Expanded Death Valley National Monument, and converted the monument into a national park and designated 95% of its lands as wilderness;
- Designated 1.2 million acres of BLM wilderness and released some public lands (approximately 475,000 acres) from wilderness consideration that were not designated wilderness.

Released wilderness study areas include two categories of lands[11]. In the first category are public lands that were released WSAs and recommended as non-suitable by the BLM. According to the CDCA Plan (p. 54),, *Wilderness Element, Methodology*, these lands return to their original multiple-use class (MUC) designation. This is the No Action Alternative in NEMO. The second category is lands recommended as suitable for wilderness classification by BLM, and which Congress chose not to designate as wilderness and chose to release from further wilderness consideration. In this second instance, the range of alternatives on BLM-managed public lands also tiers from the strategy proposed in the CDCA Plan (p. 52 as amended by the 1982 Plan Amendments Record of Decision, p. 121). . These lands were managed as MUC C during wilderness consideration, but can no longer be managed under that designation, by definition. The CDCA Plan strategy indicates recommended WSAs have an interim MUC Limited designation. This is a part of the No Action Alternative. Secondly, the CDCA Plan indicates that suitable lands released from wilderness review and should receive a permanent MUC designation to be determined through land use planning.

Considerations include resource sensitivity, surrounding MUC, and other activities including those that Congress may have noted in their rejection of the wilderness designations. The questions to be addressed on these lands are:

- Have any of the lands undergone a significant change in circumstance since the last plan amendment process was completed for this planning area, such that they should be considered for a MUC other than the class originally designated in the CDCA Plan?
- On each released parcel, what are the site-specific factors the BLM should weigh in its consideration of appropriate MUC (e.g. CDPA, proposed desert tortoise zoning, ACECs, OHV open areas, changes to surrounding MUC)?
- Should lands not recommended as wilderness, where MUC of adjacent lands had been changed by previous CDCA plan amendment, be considered for a MUC other than the classification originally designated in the CDCA Plan?
- Should any of the lands recommended as wilderness be designated as a MUC other than MUC "Limited", which is the interim designation in the CDCA Plan?

1.5.7 CDCA Plan Changes Resulting From the California Desert Protection Act: ACECS Considered for Deletion

Approximately 73 percent of the Greenwater Canyon Cultural ACEC, originally comprising approximately 3,000 acres of public lands, is no longer under the jurisdiction of the BLM as a result of the expansion of Death Valley National Park. Most of the important cultural values are now located within the boundaries of DVNP. The question to be addressed in this planning effort is:

- Should the remaining 820 acres of public lands of the Greenwater ACEC remain an ACEC, i.e. consistent with the designation criteria for an ACEC?

[11] There may also be remnant parcels that show up due to Congressional boundary adjustments which are relatively small or long, linear slivers. This would occur for example, where WSA boundaries are pulled back 100 feet from a roadway along a mile-long length of road, or where Congress made a small boundary adjustment to features that resulted in released lands. In those cases where small acreages or long slivers of public lands are released to the BLM for re-designation of their MUC, the re-designation is being addressed as a plan maintenance action under 2.3.4. Lands would be re-designated consistent with surrounding MUC that is not wilderness or WSA.

1.5.8 Organized Competitive Vehicle Events

There are special criteria in the Recreation Element of the CDCA Plan for organized long distance point-to-point competitive vehicle events. Currently, outside of OHV open areas and identified race courses, an organized competitive event may be proposed in MUC I and M, and MUC L land consistent with these criteria. Other long-distance competitive events have been run in southern California, but not through the Northern and Eastern Mojave planning area. Dual sport Off-Highway-Vehicle rides (i.e., non-competitive, speed-restricted rides) continue to be run through the Northern and Eastern Mojave planning area, and will be unaffected by these alternatives

The Barstow-to-Vegas (B-to-V) motorcycle race course was established by a 1982 Plan Amendment to the CDCA Plan on 17 May 1983**.** The B-to-V course is approximately 250 miles in length and crosses the West Mojave Desert, Mojave National Preserve (approximately 23.4 miles) and the NEMO planning area (34.6 miles). Then the course crosses into Nevada through lands managed by the BLM Las Vegas field office. In California, approximately 65 percent of the course is located in prime (critical and Category I) desert tortoise habitat, whereas through Nevada it crosses outside of the areas designated as tortoise ACECs by the BLM's Las Vegas Resource Management Plan. In the NEMO planning area, almost 90 percent of the course passes through prime desert toirtoise habitat. Some lands that were identified as part of the course are under the jurisdiction of the NPS.

Most of the issues identified for MUC L are driven by legal mandates that are also applicable on other public lands. No organized, competitive race is likely to be permitted under the existing criteria in the NEMO planning area given wilderness and wilderness study area designations, existence of designated T&E species and their habitats, the presence of significant cultural/.historical resources, and other considerations. The BLM needs to determine an appropriate strategy for competitive organized race events desert-wide.

Dualsports Off Highway-Vehicle rides that are non-competitive continue to be run through the Northern and Eastern Mojave planning area, and will be unaffected by these alternatives. The long-term strategy for organized competitive events in the Northern and Eastern Mojave planning area will be coordinated with similar strategies being considered in other planning efforts within the California Desert Conservation Area (i.e., West Mojave, Northern and Eastern Colorado, and Coachella Valley).

The questions to be addressed in the NEMO planning effort are:

- Should the B-to-V point-to-point race course be modified or eliminated, based on the changes to land-use allocation and resource sensitivity that have occurred since the course's designation in 1982?
- If modified, what desert-wide strategy makes sense for Organized Competitive Vehicle Events in the NEMO planning area for the next twenty years?
- Whether a race course is kept or eliminated, should desert-wide criteria be developed for organized competitive races outside of OHV open areas in the California Desert?

1.5.9 Motorized Routes of Travel Designations

The guidance in 43 CFR 8342.1 requires that all designations pertaining to off-road vehicle use be based on:

- The protection of the resources of the public lands
- Promotion of the safety of all the users of the public lands
- Minimization of conflicts among various uses of the public lands

In the NEMO planning area, approximately 40% of the land has been designated as wilderness. An additional 10% was designated or remains in wilderness study area status, which awaits Congressional decision on wilderness suitability. Approximately 50% or 1.2 million acres, is designated as "limited" for motor-vehicle access and needs site-specific analysis to designate a route network. In the NEMO planning area, route designation for approximately 30 percent of the network will be completed with the planning effort, with the signing of the record of decision. This would include areas within the two desert tortoise subregions. The other subregions will have routes designated on a schedule designated in the record of decision.

The questions to be addressed in the NEMO planning effort include:

- Is the proposed route network adequate in the two desert tortoise DWMA subregions?
- Is the existing route designation strategy adequate to identify and classify a valid route network or should BLM change to a strategy of "approved" routes for all areas outside of OHV open areas?
- What strategy should the BLM utilize to complete route designation in the rest of the NEMO planning area, outside of the two desert tortoise subregions?

1.5.10 Inyo County Landfills

The question to be addressed in this planning effort is:

- Should the MUC be changed on lands being used as landfills to provide flexibility in dealing with new policy to close or patent landfills to local jurisdictions, i.e. potentially make them available for conveyance to Inyo County?

1.5.11 Wild and Scenic Rivers Eligibility: Identification and Classification

The question to be addressed in this planning effort is:

- What segments of the Amargosa River, Cottonwood Creek, and Surprise Canyon Creek meet eligibility criteria for Wild and Scenic Rivers designation and what potential classification should be identified for eligible segments?

The eligibility reports are submitted as Appendix O for the Amargosa River segments, Appendix S for the Cottonwood Creek segment, and Appendix T for the Surprise Canyon Creek segments.

1.6 Relationship to Laws, Regulations and Policies

The proposed action and alternatives are consistent with applicable federal statutes and regulations, including:

- The Federal Land Policy and Management Act (FLPMA),
- The National Environmental Policy Act,
- The federal and California Endangered Species Acts,
- The Sikes Act,
- The Taylor Grazing Act,
- The Wild, Free-Roaming Horse and Burro Act,
- The National Historic Preservation Act,
- The Clean Water Act, and the Clean Air Act,
- The Wilderness Act,

- The California Desert Protection Act,
- Mining and Minerals Policy Act of 1970,
- 1872 Mining Law, National Materials and Minerals Policy,
- National Materials and Minerals Research and Development Act of 1980,
- Executive Orders and Congressional mandates.

In addition, the desert tortoise proposed action and alternatives are derived from two additional policy documents: the *Desert Tortoise Habitat Management on Public Lands: A Rangewide Plan and California's Statewide Desert Tortoise Management Policy*.

1.7 Framework of the CDCA Plan, 1980

For lands under the jurisdiction of the BLM, land use planning guidance for the area is found in the CDCA Plan of 1980, as amended. FLPMA provided how the Bureau of Land Management should manage public lands, and recognized that the California desert is fragile, and contains historic, scenic, archaeological, environmental, biological, cultural, scientific, educational, recreational, and economic resources that are uniquely located adjacent to areas of large population in southern California and southern Nevada. The use of all California desert resources can and should be provided for in a multiple-use and sustained yield management manner to conserve these resources for future generations while providing for present and future uses. Congress specifically provided guidance for the management of the CDCA, including the formation of the Desert Advisory Council, and directed the development of the 1980 CDCA Plan.

Many different interests are represented in the large and diverse California desert. These include federal, state, and local agencies that manage lands and resources, and people who live and work in the area, come to the desert for recreation, and pass through the desert on their way to other places. Using a multi-disciplinary planning process, the BLM worked with these multiple interests through dialogue and their collective expertise, experiences and resources, to begin a definition of public land health for desert landscapes. BLM sought to find the balance between protection and use that assures future generations sustained yield while allowing current generations to enjoy and use desert resources.

The Northern and Eastern Mojave plan alternatives would amend the approved CDCA Plan for the NEMO planning area. Existing plans would not be directly affected, except for the areas identified in this document. The CDCA Plan is based on land-use management by geographic zones, i.e. the types of uses that are appropriate in light of existing resource values. The CDCA plan provides overall direction through four multiple-use classes (MUCs): Controlled Use (C) for wilderness areas, Limited Use (L), Moderate Use (M), and Intensive Use (I). The CDCA Plan, as amended, 1980, pp. 15-20 has a complete list of MUC guidelines for each resource and use. Management direction is given for various resources and uses including utility corridors, domestic livestock grazing, and threatened and endangered species conservation. Special areas are identified for conservation and protection of important resources, and management directions are identified to be further developed into site-specific conservation actions. Chief among these are Wildlife Habitat Management Areas and Areas of Critical Environmental Concern (ACECs).

Northern and Eastern Mojave Plan alternatives do not address the management of areas outside of the planning area, except that standards for public lands, grazing management guidelines, and organized competitive vehicle event decisions cannot be adopted and implemented until also evaluated in other planning areas within the CDCA.

1.8 Relationship to Other Plans

Several issues in the NEMO plan are being simultaneously addressed in adjacent planning areas, including the BLM-led West Mojave Plan, Northern and Eastern Colorado Plan, the recently completed Las Vegas Resource Management Plan and the Mojave National Preserve and Death Valley National Park General Management Plans. Therefore, there is a need for consistency on issues that are common and particularly sensitive. Many issues and solutions will be area specific. NEMO decisions, which may be deferred to assure desert-wide consistency, include the following:

- Adoption of standards and guidelines
- Adoption of a strategy for OHV competitive events outside of open areas
- A decision on the future of the Barstow-to-Vegas race course.

A Record of Decision on these issues may be deferred until comment has been received from participants and the public interested in other bioregional plans in the CDCA.

The NEMO planning effort has been developed in response to USFWS recovery plans for the federally and state listed desert tortoise and Amargosa vole. The relationship of specific strategies identified in this document and recommendations in species recovery plans are indicated in Appendix A for the desert tortoise, and Appendix H for the Amargosa vole. The NEMO planning effort adopted the goals of both recovery plans, and the recovery objectives for the Amargosa vole. For the desert tortoise, this and other planning efforts in the four-state range of the species, have developed strategies that vary in some respects from the recommended actions in the recovery plan. Differences are based on identifying recovery-units and DWMA alternatives to meet the goals of the USFWS recovery plan. Appendix C discusses recommendations to address potential threats to the desert tortoise and its habitat, and how the Proposed Plan addresses these issues.

The NEMO planning area was one of three planning areas established in the desert region of southern California to address desert tortoise issues. A fourth area was identified for the same purpose in southern Nevada. The initial objectives of these planning efforts were to gather information, define issues, and develop methods to resolve issues. Due to the complexity of preparing and completing an Environmental Impact Statement, on four geographically different and complex land areas, BLM determined that a separate EIS be prepared for each planning effort. The four plans to be developed were; the Las Vegas Resource Management Plan, or LVRMP, for the northeastern and eastern Mojave planning effort in Nevada[12] the West Mojave Plan, or WEMO, for the western Mojave Desert; the Northern and Eastern Colorado planning effort, or NECO, in the northern and eastern Colorado Desert; and the Northern and Eastern Mojave planning effort, or NEMO for the northeastern and eastern Mojave Desert in California. A brief description of each of the other planning efforts follows.

Northern and Eastern Colorado Plan (NECO)

Led by the Bureau of Land Management, federal and state agencies are developing this CDCA Plan Amendment to address recovery of the desert tortoise and management of special status species and natural communities in the northern and eastern Colorado Desert. The NECO area is twice the size of NEMO, and is adjacent to it south of I-40. NEMO and NECO share adjoining boundaries of extensive desert tortoise habitat across highway I-40. NECO's habitat is in two desert tortoise recovery units.

[12] The DEIS for this plan was published as the Stateline Resource Management Plan.

West Mojave Plan (WEMO)

Led by the Bureau of Land Management, federal, state and local agencies are cooperatively developing this CDCA plan amendment for public lands and habitat conservation plans (HCP) on private lands to address the recovery of the desert tortoise and management of other species in the western Mojave Desert. The planning area is about four times the size of NEMO and abuts NEMO on most of the western boundary of the planning area.

Las Vegas Resource Management Plan (LVRMP)

Led by the Bureau of Land Management, the LVRMP addressed all resource uses on public lands, but emphasizes recovery of the desert tortoise in the Northern and Eastern Mojave Desert in Nevada. The LVRMP and NEMO share portions of both recovery units that are the focus for their recovery strategies. The LVRMP planning area is about 40% larger than NEMO, and abuts NEMO on the southeastern boundary of the planning area. The Record of Decision was released in October 1998, indicating the LVRMP decisions. These decisions would be consistent with NEMO proposals for desert tortoise in the eastern Mojave Desert.

Death Valley National Park General Management Plan

In September, 1998, and again as revised in September, 2000 the National Park Service released a Draft Environmental Impact Statement for a proposed update to the existing General Management Plan and alternatives covering the expanded 3.4 million-acre Death Valley National Park. A proposed plan was released in June 2001, with a Record of Decision in September of 2001. The Final Management Plan was subsequently published as available in March 2002, and sent out for review May 31, 2002. It is available from the National Park Service in Furnace Creek, California.

The Death Valley National Park is located in the transition between the East Mojave and the Basin and Ranges Province, and is adjacent to the northern third of the NEMO planning effort. Issues included wilderness, Timbisha Indian lands, burro management, and management of natural hot springs. Concurrent with the evaluation of the DVNP General Management Plan, the Timbisha-Shoshone Homeland Act was circulated, the draft legislative EIS report released for review in April 1999, and the legislation subsequently signed in November 2000.

Mojave National Preserve General Management Plan

In September 1998, and again as revised in September, 2000, the National Park Service released a Draft Environmental Impact Statement for a proposed General Management Plan and alternatives covering the 1.6 million-acre Mojave National Preserve. A proposed plan was released in June 2001, with a Record of Decision in September of 2001. The Final Management Plan was subsequently published as available in April 2002, and sent out for review May 31, 2002. It is available from the National Park Service in Barstow, California.

The Mojave National Preserve is located in the East Mojave, and is adjacent to and west of the southern third of the NEMO planning area. Issues included conservation of the East Mojave and the northern and eastern Mojave populations of desert tortoise, grazing management, route management, and facilities.

1.9 Plan Goals

In summary, the plan goals address the purposes and needs identified at the beginning of this chapter. They include the following:

- Adopt standards for public land health and guidelines for grazing management in the planning area
- Identify management actions to conserve and recover threatened and endangered (T&E) species, particularly the desert tortoise, Amargosa vole, three listed riparian obligate birds and three listed plants, as well as species that may be considered for listing in the reasonably foreseeable future
- Make Multiple-use Class (MUC) decisions for lands released from wilderness consideration and make changes to make the CDCA Plan conform to the California Desert Protection Act (CDPA)
- Adopt an off-highway vehicle (OHV) strategy for motorized competitive speed events
- Adopt a strategy for route designation in the NEMO planning area consistent with 43 CFR 8342.1 and the CDCA Plan.
- Change the Multiple-Use Class to enable disposal of existing landfills on public lands in the planning area
- Identify eligible river segments on public lands for further analysis for potential inclusion in the National Wild and Scenic Rivers System

Alternatives have been formulated in the next chapter to address each of these plan goals.