No Jeopardy

QA:N/A

United States Department of the Interior

FISH AND WILDLIFE SERVICE
NEVADA FISH AND WILDLIFE OFFICE
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March 14, 2003
File No. 1-5-01-F-570

Memorandum

To: Assistant Field Manager, Tonopah Field Station, Bureau of Land Management, Tonopah, Nevada

From: Field Supervisor, Reno Fish and Wildlife Office, Reno, Nevada

Subject: Final Programmatic Biological Opinion for Implementation of Proposed Actions Within Desert Tortoise Habitat Administered by the Tonopah Field Station, Nye County, Nevada

This document transmits the U.S. Fish and Wildlife Service's (Service) biological opinion based on our review of proposed programmatic activities proposed to occur over a 10-year period by the Bureau of Land Management (BLM), as described in your August 31, 2001, biological evaluation (BLM 2001a) located in Nye County, Nevada, and its effects on the threatened Mojave desert tortoise (*Gopherus agassizii*) in accordance with section 7 of the Endangered Species Act of 1973, as amended (Act) (16 U.S.C. 1531 *et seq.*). Your September 6, 2001, request for formal consultation was received on September 7, 2001.

This biological opinion is based on information provided in the August 7, 2002, and March 7, 2003, meetings between BLM and the Service; comments on the draft biological opinion on the subject project received from BLM by facsimile on March 11, 2003, and by email on July 23 and 26, August 2, and September 4, 2002, and March 6, 2003; August 31, 2001, biological evaluation (BLM 2001a); October 18, 2001, Service guidance for programmatic biological opinions (Attachment A); November 27, 2001, memorandum from BLM to the Service (BLM 2001b); discussions and electronic mail between Service and BLM staff; and our files. A complete administrative record of this consultation is on file in the Southern Nevada Field Office, Las Vegas, Nevada.

Consultation History

File No. 1-5-91-F-36, as amended. On August 14, 1991, the Service issued a non-jeopardy biological opinion to BLM for issuance of livestock grazing permits that occur within desert tortoise habitat in southern Nevada, excluding range improvement projects. A total of 3,174,000 acres of desert tortoise habitat on Federal land may have been impacted by implementation of livestock grazing on 60 grazing allotments in southern Nevada. The biological opinion was amended February 3, 1992, to allow BLM to modify two livestock use dates. The biological opinion for livestock grazing was replaced with the biological opinion for the Las Vegas Resource Management Plan (RMP) (File No. 1-5-98-F-053) and Caliente Management Framework Plan (MFP) (File No. 1-5-99-F-450), and will be superseded by the subject biological opinion for the Tonopah Field Station. Upon finalization of this biological opinion, the 1991 opinion for livestock grazing will no longer be valid.

File No. 1-5-94-F-284. On August 12, 1994, the Service issued a biological opinion on the implementation of the Proposed Tonopah RMP and Final Environmental Impact Statement (BLM 1997a). The biological opinion was issued in response to potential impacts to desert tortoise and Railroad Valley springfish (*Crenichthys nevadae*) that may result from actions authorized under the RMP. The purpose of the RMP was to provide direction for managing the natural resources on BLM lands in the Planning Area. In the opinion the Service concluded that implementation of the proposed RMP would not result in incidental take of desert tortoise or Railroad Valley springfish.

The Tonopah RMP and Record of Decision dated October 6, 1997, contains the following determinations for the specific management of the desert tortoise habitat:

- Special Status Species: Provides for the management of desert tortoise habitat to maintain current population levels. Where new road construction is discretionary, no new roads will be constructed in washes.

- Livestock Grazing Management: Includes the terms and conditions of the biological opinion for livestock grazing in southern Nevada (File No. 1-5-91-F-36, as amended).

- Lands and Rights-of-Way: New or amended rights-of-way in desert tortoise habitat must be compatible with the special values of the area.

- Recreation: Vehicles will be limited to existing roads and trails to protect sensitive resource values such as threatened and endangered species.

File No. 1-5-95-F-237, as amended. On August 30, 1995, the Service issued a programmatic biological opinion to BLM on issuance of special recreation use permits for speed-based off-highway vehicle (OHV) events in the Las Vegas District and the Tonopah Resource Area, Battle Mountain District. Prior to the issuance of this programmatic biological opinion, a number of biological opinions had been issued for OHV events, including individual race events and multiple events on designated race courses. The purpose of the programmatic biological opinion was to better assess the overall impacts of BLM's OHV program and encompass and replace previous opinions. Within the Tonopah Resource Area, speed-based OHV events would be permitted on existing roads, trails, and a motorcycle track. A motorcycle race course would be designated, which would encircle the town of Beatty and be used for annual competitive events. This biological opinion was replaced with the biological opinion for the Las Vegas RMP (File No. 1-5-98-F-053) and Caliente MFP Amendment (BLM 2000a), and will be superseded by the subject biological opinion for the Tonopah Field Station.

On November 21, 2000, the Service amended the 1995 biological opinion to extend the term for two years to allow BLM time to prepare a comprehensive biological evaluation for multiple discretionary actions anticipated to occur in desert tortoise habitat on land administered by the Tonopah Field Station, and complete the formal consultation process.

File No. 1-5-01-F-570 (subject biological opinion). On September 6, 2001, BLM provided a biological evaluation and request to initiate formal consultation. Between September 6 and October 22, 2001, BLM and the Service discussed the scope and minimization measures proposed by BLM in their August 31, 2001, biological evaluation (BLM 2001a). On October 6, 2001, the Service submitted a memorandum to BLM requesting additional information in order to initiate consultation. Specifically, the Service requested that BLM include casual/dispersed recreation as part of the proposed action which was not included in former consultations, and assurance that owners of lands conveyed to them as part of the proposed action comply with section 10 of the Act before transfer of title.

On November 27, 2001, BLM provided the information requested by the Service (BLM 2001b). On January 14, 2002, the Service initiated formal consultation for the proposed action, effective November 28, 2001, the date the information was received by the Service. A draft biological opinion was provided to BLM on May 28, 2002. BLM provided comments via email on July 23 and 26, August 2, and September 4, 2002, and March 6, 2003. BLM and Service staff met on August 7, 2002, and March 7, 2003 to discuss comments and the draft opinion. BLM provided additional comments on the draft biological opinion on August 29 and September 4, 2002.

BIOLOGICAL OPINION

Programmatic Consultations

This biological opinion was prepared in accordance with the October 18, 2001, guidance for programmatic-level consultations (Attachment A). The term, "programmatic consultation" has become a generic term encompassing a broad category of section 7 consultations that evaluate the potential for Federal agency programs to affect listed and proposed species, and designated and proposed critical habitat. Such programs typically guide implementation of future agency actions by establishing standards, guidelines, or governing criteria to which future actions must adhere. At times the term *programmatic consultation* has been used to refer to consultations on a large group of similar actions (e.g., a national forest's timber harvest program for a particular year) as well as to refer to consultations covering different types of actions proposed within a large geographic area such as a watershed. Such consultations can provide the benefit of streamlining the consultation process while leading to a more landscape-based approach to consultation that can minimize the potential "piecemeal" effects that can occur when evaluating individual projects out of the context of the complete agency program.

This programmatic biological opinion analyzes the potential effects of implementing BLM's proposed multiple-use actions, and develops the appropriate project-specific documentation that addresses the effects of individual multiple-use projects. This programmatic biological opinion contains all of the elements found in a standard biological opinion. The format of this programmatic biological opinion conforms with the *appended programmatic approach*, which will require that the Service produce project-specific documentation that is physically appended to this programmatic biological opinion **before** the action occurs.

Project-level Consultation under the Appended Programmatic Consultation Approach

As individual projects are proposed under the appended programmatic consultation approach, BLM provides project-specific information that: (1) describes each proposed action and the specific areas to be affected; (2) identifies the species and critical habitat that may be affected; (3) describes the manner in which the proposed action may affect listed species; (4) describes the anticipated effects; (5) specifies, if appropriate, that the *anticipated effects from the proposed project are consistent with those anticipated in the programmatic biological opinion*; and, (6) describes any additional effects, if any, not considered in the programmatic consultation.

The Service reviews the information and effects analysis provided for each proposed project and this project-specific review is documented in accordance with the guidance provided below. To initiate the project-specific review, BLM's project information and effects analysis should be

accompanied by a cover letter that specifies that the action agency has determined that the proposed project is consistent with the programmatic biological opinion and requests that the proposed project be appended to the programmatic biological opinion to fulfill BLM's consultation requirements. In this programmatic biological opinion, the Service determined the overall anticipated incidental take for all proposed BLM activities over a 10-year period, at the programmatic level. As each action is submitted by BLM to the Service to be appended to this programmatic biological opinion, the Service will determine the anticipated incidental take for each action, at the project level, as a subset of the incidental take anticipated in the programmatic biological opinion. This process is a modification of the appended approach which involves only programmatic-level incidental take statements.

should be "May Adversely Affect"

Individual BLM actions that are *likely to adversely affect* listed species shall require a memorandum from the Service to BLM that contains:

(1) A summary of any information not identified in the programmatic consultation document used to evaluate the effects of the proposed action;

(2) A short project summary as provided by BLM;

(3) A detailed discussion of the effects of the proposed action on listed species and critical habitat;

(4) A statement regarding the specific project's impacts to the environmental baseline, including a restatement of the amount of take that is anticipated and a tallying of the overall impacts to the environmental baseline from projects implemented under the programmatic consultation to date;

(5) Any additional project-specific reasonable and prudent measures needed to ensure the minimization of the impacts of the take that will result from the proposed project; and,

(6) Language that appends the project to the programmatic consultation and associated incidental take statement, if appropriate.

Although there is no standard for the required project-specific documentation, the Service generally should complete its response in approximately two pages, and within 45 days. This documentation is then physically attached (appended) to the programmatic biological opinion in an appendix. Therefore, the programmatic biological opinion, together with the appended documentation, fulfills the consultation requirements for implementation of both program-level and project-level actions.

DESCRIPTION OF THE PROPOSED ACTION

The Planning Area for this biological evaluation contains approximately 70,600 acres of public land at the southernmost portion of BLM's Tonopah Planning Area in the Beatty, Nevada area of Nye County (Figure 1). The Planning Area is bounded on the south by BLM's Las Vegas Planning Area, to the west by Death Valley National Park, to the east by the Nevada Test and Training Range, and to the north by the elevation and vegetation boundaries of desert tortoise habitat as designated by BLM. These administrative boundaries as well as the Planning Area's tortoise habitat boundary are shown in Figure 1.

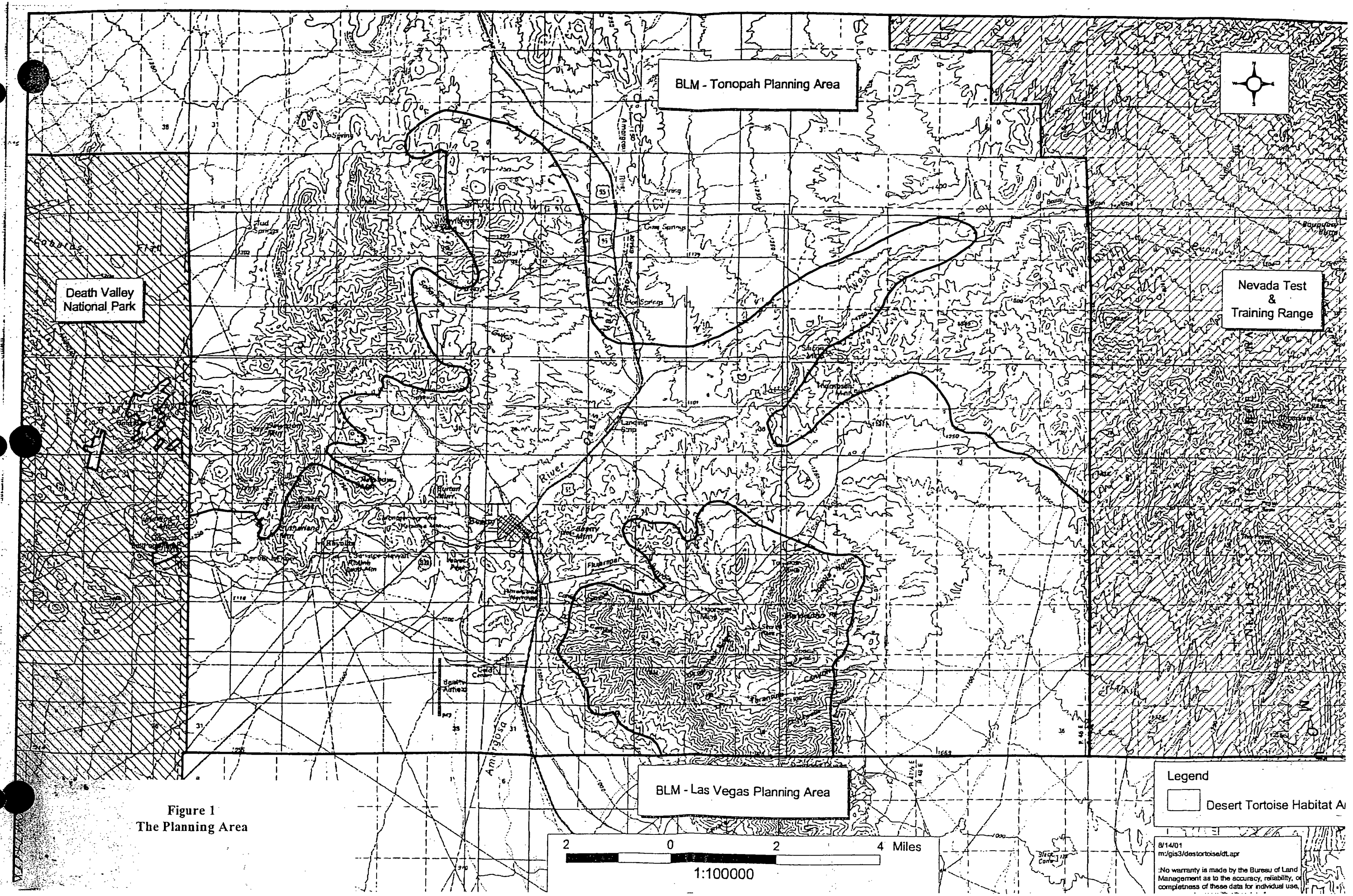


Figure 1
The Planning Area

The scope of this biological opinion includes multiple discretionary activities that may result in disturbance of a cumulative total of 3,200 acres of desert tortoise habitat and disposal of up to 10,800 acres of desert tortoise habitat, over a 10-year period. The analysis of this opinion is limited to those activities which may result in short-term or long-term impacts to desert tortoise and its habitat. *Habitat* in this biological opinion refers to the 70,600 acres of desert tortoise habitat identified by BLM in the Tonopah Planning Area. However, the extent of disturbance affecting tortoise habitat may be less than the total acreage involved in the activity. Therefore, the following activities are excluded from this consultation:

- Any activity (with the exception of land sales, exchanges, and acquisitions) that exceeds a cumulative total of 240 acres of disturbance.

- Nevada Department of Transportation (NDOT) rights-of-way covered under the incidental take permit (TE034927-0) issued by the Service on November 22, 2000, to Clark County and NDOT under the authority of section 10(a)(1)(B) of the Act, unless a Federal nexus has been established.

- Projects requiring an Environmental Impact Statement which would require a site-specific consultation.

Based on a review of BLM realty records of authorized and pending actions, the types of actions included in this opinion are categorized below with examples of the area typically affected by the action (BLM 2001a):

1. **Rights-of-way**: Roads: 10 to 50 feet in width, and less than 17 acres; electric and telephone lines: 10 to 100 feet in width and 10 acres or less; water facilities and plants: 5.5 to 40 acres for facilities and 3 acres for plants; pipelines and fiber-optic lines: 10 to 25 feet in width and 2 acres; communication sites: Total disturbances less than 1 acre for the communication site.

2. **Recreation & Public Purpose (R&PP) Act Leases and Leases and Permits Under Section 302 of the Federal Land Policy and Management Act (FLPMA)**: Previous leases range from 320 acres (shooting range) to less than 10 acres. One airport lease (80 acres) is pending in the area. Average lease is 40 acres for municipal utility usage (landfills, other sanitation facilities).

3. **Land Exchanges, Disposals and Acquisitions**: Includes only those outlined within the approved RMP disposal areas with a cumulative total not to exceed 10,800 acres for the

10-year period. Approximately 21,500 acres of tortoise habitat in the Planning Area are identified for potential disposal in the RMP (Figure 2).

4. **Mineral Materials Sales**: BLM records identify eight authorized material sites in the Planning Area, with an average size of about 40 acres. Currently, only two of these sites are active.

5. **Locatable Minerals and Mining Plan of Operations**: Recent mining plans of operation in the area include one project with a proposed disturbance of about 2,500 acres and a smaller project disturbing 535 acres. Within the past five years both mines ceased operation and are now in reclamation.

6. **Fluid Minerals Leases**: Oil, gas and geothermal exploratory wells: From 1 to 20 acres; most projects are less than 5 acres.

7. **BLM Projects**: Water catchments, spring developments, fences, corrals and cattle guards; kiosks and informational signs; less than 1 acre, with most less than 0.25 acre.

8. **Wild Burro Herd Management**: Trap sites and holding facilities for burros: 10 acres or less of new disturbance. Tortoise habitat is entirely within the Bullfrog Herd Management Area (HMA). Wild horses do not occur in desert tortoise habitat within the Planning Area.

9. **Livestock Grazing**: Two livestock grazing allotments occur within the Planning Area, Razorback and Montezuma. Montezuma has no permitted livestock; Razorback is currently in non-use category.

10. **Recreation Management**: Mountain bike rides, hiking, dog trials, rendezvous, hunting, wagon rides, horse trails; three to four competitive OHV events per year on routes identified in Figure 3; and one to two dual-sport events per year. No new surface disturbance is anticipated.

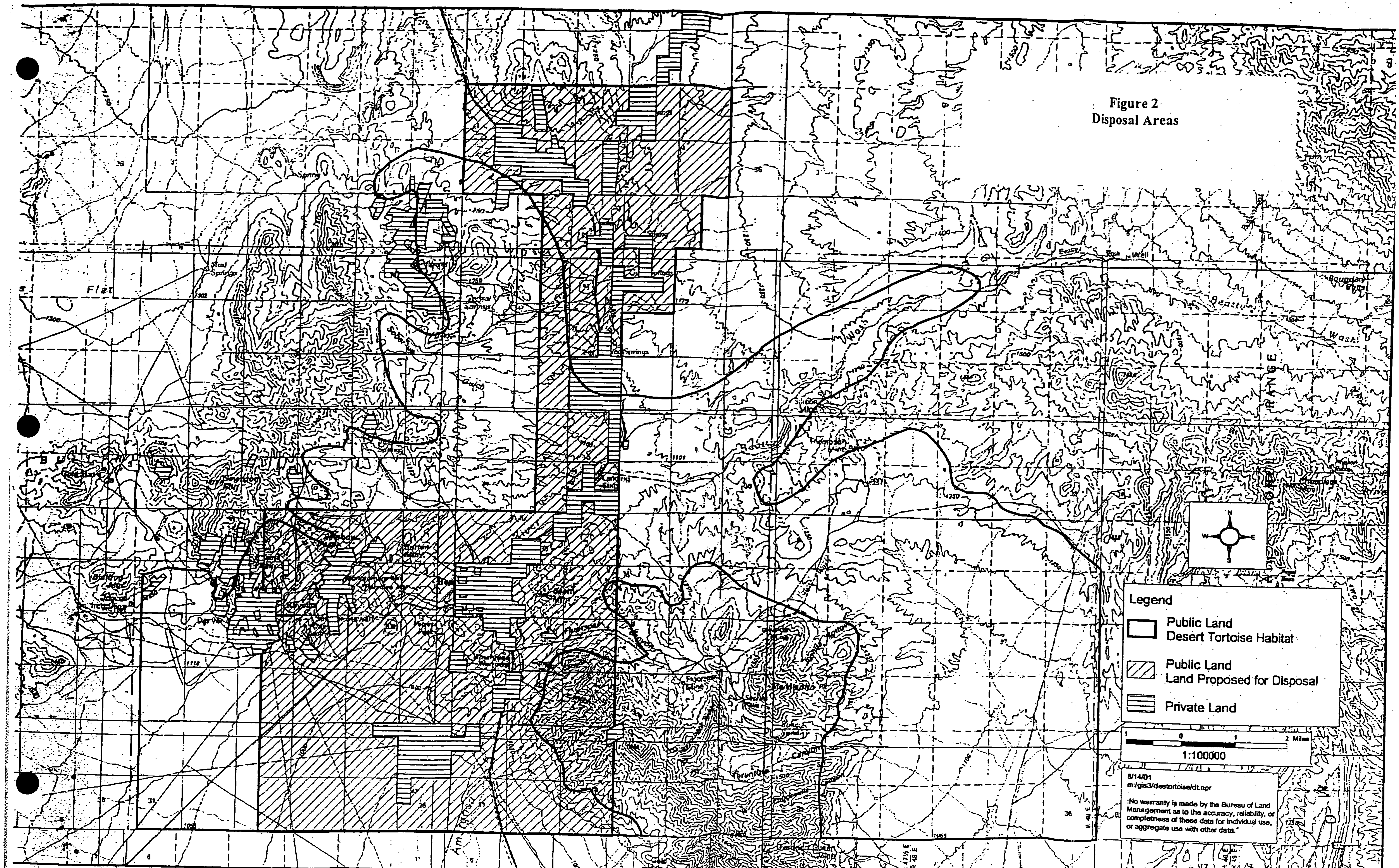
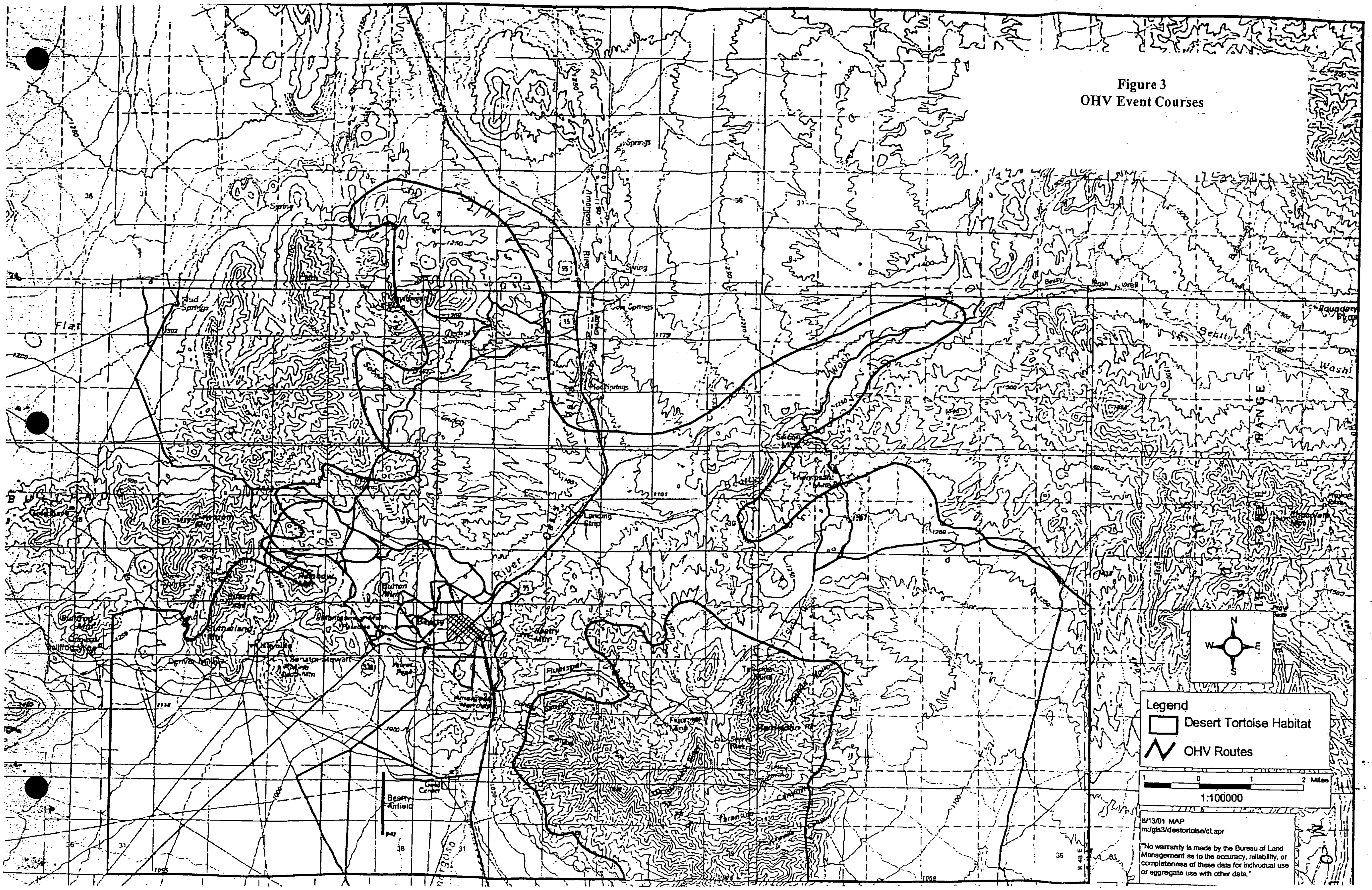


Figure 2
Disposal Areas

Figure 3
OHV Event Courses



11. **Casual/Dispersed Recreation**: Unorganized non-OHV activities (rock hounding, photography, hiking, etc.) and unorganized OHV use by individuals or small groups are classified as dispersed use and would not require a BLM permit. Non-OHV activities are less likely to effect tortoise or tortoise habitat but are usually combined with OHV activity. Thus, the RMP limits vehicles to existing roads and trails in desert tortoise habitat to protect sensitive resource values such as threatened and endangered species. Nye County is in the process of drafting an ordinance to restrict OHV travel to existing roads and trails throughout the county.

12. **Hazardous Materials Management**: Typically less than 0.25 acre per incidence.

Descriptions of Types of Multiple-Use Actions That May Be Authorized in the Planning Area

1. **Rights-of-Way Management**

Right-of-way grants are presently issued under the authority of Sections 303, 310 and 501-511 of FLPMA. A right-of-way is an authorization for use over, upon, under, or through public lands for construction, operation, maintenance or termination of a project. As an example, many of the rights-of-way in the Planning Area are for communication sites (i.e., antennae) and the acreage involved with them includes access and the sites, as well as authorization for maintenance and operation. The RMP places desert tortoise habitat in a rights-of-way avoidance area which may authorize rights-of-way only if no feasible alternative routes are available.

Due to the presence of Federal and State highways, the town of Beatty with 1,173 residents based on the 2000 Census, and the proximity to the Nevada Test and Training Range, the Planning Area includes extensive rights-of-way authorizations. Holders include NDOT, the town of Beatty and Nye County, Nevada Bell (telephone), Valley Electric, the U.S. Air Force, and the U.S. Department of Energy. Existing rights-of-way authorizations are subject to amendment and modification which could lead to additional disturbance.

This programmatic consultation may cover electric power transmission and distribution lines; water pipelines; communication sites; local telephone and cable lines proposed outside of corridors; access roads to private parcel, Federal oil, gas, and geothermal leases; and mining claims, provided the total new surface disturbance for each project, including rights-of-way, is less than 240 acres for the entire project.

To minimize the potential effects to desert tortoise that may result from approval of rights-of-way applications, BLM proposes to implement the *Proposed Conservation Measures for All Surface Disturbing Activities*, as described below.

2. **R&PP Act Sales and Leases and FLPMA Section 302 Permits and Leases**

The R&PP Act of 1954 allows local governments and nonprofit organizations to acquire or lease Federal lands for a variety of purposes at a minimal cost. In the Planning Area, a number of parcels have been acquired by patent by Nye County, the Beatty General Improvement District, the Beatty Water and Sanitation District, and others. Examples include an airport, county buildings and other facilities, and a church. Examples of R&PP leases in the Planning Area include a 320-acre parcel used as a shooting range and a 40-acre landfill for community use.

Private and commercial use of public lands administered by BLM occur in accordance with FLPMA. Section 302 of FLPMA authorizes BLM to issue leases for long-term use of public land with substantial construction, development or improvement, permits for short-term use with little or no development, and easements to insure uses are compatible with non-public lands. An example of land uses authorized by FLPMA is issuance of film permits (e.g., motion picture, television, commercial) which typically involve little or no disturbance.

To minimize the potential effects to desert tortoise that may result from R&PP Act sales and leases and FLPMA permits and leases, BLM proposes to implement the *Proposed Conservation Measures for All Surface Disturbing Activities*, as described below.

3. **Land Exchanges and Sales**

Land exchanges are authorized under sections 205, 206, 302(b), and 310 of FLPMA. The process involves the exchange of public lands for private lands of equal value. An example from the Planning Area is the exchange of private lands in Rhyolite held by the Barrick Bullfrog Mine, for public lands on which Barrick has a mining plan of operation in the reclamation phase.

Disposal of Federal lands in the Planning Area has occurred through a variety of methods. Individuals and corporations have purchased mining claims under the General Mining Law; lands have been acquired by homestead entry; lands have been sold under the Small Tract Act; through the Desert Land Act; and under the authority of FLPMA.

Pending actions in the Planning Area include the disposal of public land identified for sale through the land use planning process under FLPMA provisions. The RMP identifies 21,500 acres of public land in the Planning Area as available for potential disposal for community expansion under FLPMA provisions. There would be no limit for the number of acres disposed of in any single sale or exchange, up to a cumulative total of 10, 800 acres.

At the time of the proponent's application, BLM would inform the applicant that he/she would be responsible for compliance with the Act upon transfer of title. Since Nye County does not have a habitat conservation plan (HCP) in effect, the buyer (applicant) would be required to complete an individual HCP and acquire a section 10 permit for the property prior to transfer of title. If a regional HCP is developed, the property owner may seek coverage under the regional HCP (BLM 2001b).

4. **Mineral Materials Management**

The Materials Act (1947) as amended and 43 CFR 3600-3622 provide for the disposal and sale of some common varieties of sand, gravel, stone, pumice, cinders, and clay. Salable minerals are sold at fair market value but free-use permits may be issued to Federal, State and County agencies, local communities, and non-profit organizations. Desert tortoise habitat in the Planning Area would remain open to mineral material disposal. Any disturbance over 240 acres would be the subject of a separate section 7 consultation. If possible, reclamation would be ongoing during the life of the project.

5. **Locatable Minerals Management**

Locatable minerals in the Planning Area are open to location under the General Mining Law of 1872. Prior to January 20, 2001, plans of operation were not required for notice level projects of 5 acres or less. These notices were non-discretionary and not subject to consultation. Operators submitting a notice located in the Planning Area were informed by BLM of their responsibilities to comply with the provisions of the Act.

On November 21, 2000, BLM published final regulations revising title 43 of the Code of Federal Regulations (43 CFR) subpart 3809 and related sections governing hardrock mining on public lands. These revised rules became effective January 20, 2001. At the time of the request for consultation and biological evaluation (BLM 2001), these rules are in effect. Under the revised regulations, a plan of operations is required for any operations causing surface disturbance greater than casual use in lands known to contain federally-listed threatened or endangered species. Locatable minerals activities proposed by this

programmatic consultation would include plans of operations with a cumulative total of up to 240 acres of total disturbance per plan.

6. **Leasable Minerals**

Fluid Mineral Leases (Oil, Gas, and Geothermal Resources): The Mineral Leasing Act (1920) as amended, the Acquired Lands Act (1947), the Geothermal Steam Act (1970), and 43 CFR 3100-3599 provide the legal and regulatory framework for issuance and management of mineral leases. These regulations apply where public interest exists for the development of oil, gas, geothermal, coal and non-energy leaseable mineral resources. Stipulations attached to permits and leases assure protection of non-mineral resources susceptible to impacts resulting from the exploration and development of leaseable mineral resources.

Non-Energy Minerals Leases: The Mineral Leasing Act and 43 CFR 3500 allows for the lease of certain solid minerals such as phosphate, sodium, and potassium on Federal lands. BLM can also lease these minerals on certain private lands, provided the mineral rights are owned by the Federal government. Most of these minerals are used in the manufacture of fertilizer and as feed stock for other industrial processes. Prospecting permits may be issued where no known mineral deposit exists; this permit gives a preference right to lease a deposit if found. If a known mineral deposit exists in an area, lease issuance may be competitive. Stipulations attached to permits and leases assure protection of non-mineral resources susceptible to impacts resulting from the exploration and development of leaseable mineral resources.

Mining activities on public land are subject to the regulations found in 43 CFR 3809. These regulations include provisions for reclamation of the land for the prevention of unnecessary and undue degradation to return disturbed land to a productive habitat or use through regrading, smoothing, applying topsoil, and revegetation using seeds of plants native to the area. Reclamation plans are reviewed by both BLM and the Nevada Division of Environmental Protection. Currently, mining notices that occur on BLM lands within desert tortoise habitat (*i.e.*, habitat for federally threatened or endangered species) require plans of operation. If this condition changes, reinitiation of consultation may be required.

BLM proposes the following conservation measures specific to all mineral and locatable materials, and leaseable minerals:

a. The *Proposed Measures for All Surface-Disturbing Activities* will be followed in addition to measures described below.

b. Unless authorized by BLM, access to all mineral operations will be limited to existing roads and trails.

c. Construction of roads authorized by BLM will be confined to the location authorized and not exceed the minimum size required for safe usage.

d. No blading of existing roads or trails, or other surface disturbance work will be allowed without BLM approval.

e. If possible, access road construction for exploration should be planned such that it could be used for future exploration and possible development of the project.

f. Portable mud pits should be used when drilling with fluids unless other options are authorized by BLM.

g. All proposed surface disturbance and vehicular travel will be limited to the approved plan of operations and access route(s).

h. Project proponents constructing new road segments may be required by BLM to preclude or restrict public access of the general public.

i. Seismic survey procedures such as vibriosis, drill hole shot, or surface shot will not be completed within 100 yards of known tortoise burrows.

j. Upon determination of an impending field development, a transportation plan will be requested to reduce unnecessary access roads.

k. BLM shall inform operators submitting a notice for activities within desert tortoise habitat of their responsibilities to comply with specific provisions of the Act.

7. **BLM Projects**

These projects are generally undertaken by BLM for improvement of the various uses of public lands such as livestock grazing, wild burro use, wildlife, vegetation, and recreation management. Recreation projects may include construction of trails, informational signs, and kiosks.

Projects for livestock and wild burro management may involve permittees as required or stipulated as a condition by BLM in livestock grazing licenses. These types of projects

include fence and corral construction, water development, and installation of cattle guards. These projects are intended to improve the manageability and distribution of livestock and burros on the public range and thus reduce vegetation utilization levels.

Wildlife projects may include exclosures to protect riparian areas from overuse and improve their condition. Endemic wildlife management may include manipulation of Amargosa toad (*Bufo nelsoni*) breeding habitat and water developments for bighorn sheep (*Ovis canadensis nelsoni*). Other wildlife-related projects may involve replanting endemic vegetation and removal of salt cedar (*Tamarix* sp.) from riparian areas.

To minimize the potential effects to desert tortoise that may result from BLM projects, BLM proposes to implement the *Proposed Conservation Measures for All Surface Disturbing Activities*, as described below.

8. **Wild Burro Management**

On December 15, 1971, Congress enacted the Wild and Free-Roaming Horse and Burro Act, authorizing BLM to manage wild horses and burros on the public lands. This action mandated that wild and free-roaming horses and burros be protected from unauthorized capture, branding, harassment, or death. BLM's policy is to protect, manage and control wild horses and burros on public lands.

The tortoise habitat in the Planning Area is entirely within the 127,600 acre Bullfrog Wild Horse and Burro Herd Management Area (HMA). Portions of two livestock grazing allotments, Razorback and Montezuma, are in tortoise habitat within the HMA. Wild horses have been gathered and removed from this area which has been deemed not suitable for wild horses. An appropriate management level (AML) has been established only for a portion of the HMA. The decision to establish AML for the remainder of the HMA is under appeal. When an HMA is evaluated through BLM's Allotment Evaluation and Multiple Use Decision process, and a different grazing system or management level is proposed that may result in an increased level of effect to desert tortoise, BLM shall submit this action to the Service for action-specific consultation under this programmatic biological opinion.

BLM proposes the following measures to minimize potential impacts to desert tortoise that may result from burro management in the Planning Area:

a. Grazing will be permitted as long as forage utilization does not exceed 35 percent on key perennial grasses, forbs, and shrubs.

b. The HMA will be visited by a qualified BLM specialist to ensure compliance with the utilization standard. Any items in non-compliance shall be rectified by BLM no later than the beginning of the following growing season, and reported to the Service.

c. Trap sites for wild burro removal should be located in previous trap sites or in previously disturbed areas, if at all possible.

d. Holding facilities for gather operations should be placed either in previously disturbed areas or outside of desert tortoise habitat.

e. Trap sites and holding sites will be cleared by a qualified biologist before being set up or designated. The site will be surveyed for desert tortoise using survey techniques which provide 100 percent coverage.

f. All vehicle use in desert tortoise habitat shall be restricted to existing roads and trails; vehicle speed should not exceed 25 miles-per-hour (mph).

g. Trash and garbage shall be removed from each trap and holding site and disposed of in an off-site designated facility. No trash or garbage shall be buried at the sites.

h. Use of hay or grains as enticements into the traps will not be authorized within desert tortoise habitat to avoid introduction of non-native plant species. The feeding of hay or grains to animals shall be avoided in holding facilities within desert tortoise habitat when possible, with the exception of weed-free hay.

i. BLM will provide information to all contractors about the desert tortoise. This will be in the form of a fact sheet on the life history of the desert tortoise, legal protection for desert tortoises, the definition of take, penalties for violations of Federal and State laws, general tortoise activity patterns, reporting requirements, measures to protect tortoises, and personal measures employees can take to promote the conservation of desert tortoises. The fact sheet will include the pertinent terms and conditions of the biological opinion. The contractor will ensure that all employees working on the gather are knowledgeable of the terms and conditions of the biological opinion.

j. The discharge of firearms will be prohibited at all trap and holding facilities except in the case of euthanasia of a captured animal by an authorized BLM employee or contractor.

k. If the HMA includes grazing allotments, combined usage shall not exceed the limits set above.

9. **Livestock Grazing Management**

The Planning Area occurs within portions of two grazing allotments. One of the allotments is currently leased but has been unused the last few years for livestock grazing. The second allotment has no lease to graze livestock. In the event a lease is granted on this allotment, monitoring would be conducted based on resource needs and/or conflicts. As stipulated in the RMP, monitoring studies will incorporate approved methods contained in the 1984 Nevada Rangeland Monitoring Handbook; BLM Technical Guides 4400-1, 2, 3, 4, and 7; Nevada Grazing Management Manual Supplement H-4120-1; and BLM Nevada Wildlife Manual Supplement 6630 and Fisheries Supplements 6670.

If a different grazing system or management level is proposed that could result in an increased level of effect to desert tortoise, BLM shall submit this action to the Service for action-specific consultation under this programmatic biological opinion.

In accordance with the Service's biological opinion for livestock grazing within desert tortoise habitat in Southern Nevada, dated August 14, 1991 (File No. 1-5-91-F-36), the Service's biological opinion on implementation of the proposed Tonopah RMP, dated August 12, 1994, (File No. 1-5-94-F-284), and proposed minimization measures found in more recent biological opinions, BLM proposes the following measures to minimize the potential effects to the desert tortoise:

a. Grazing will be permitted as long as forage utilization does not exceed 35 percent on key perennial grasses, forbs and shrubs.

b. All vehicle use in desert tortoise habitat associated with the livestock grazing program shall be restricted to existing roads and trails unless authorized by a representative of BLM or the Service. An example of authorized use would be use for maintenance or construction of a range improvement.

c. Trash and garbage associated with livestock grazing operations (i.e., branding, roundups, etc.) shall be removed from each camp site or work location and disposed of offsite in a designated facility. No trash or garbage shall be buried at the work locations within desert tortoise habitat.

d. Use of hay or grains as a feeding supplement shall be prohibited in desert tortoise habitat to avoid the introduction of non-native plant species. Mineral, protein and salt blocks are authorized subject to 43 CFR section 4130.3-2(c) and shall be placed a minimum of one mile from water developments.

e. BLM will provide information to all permittees about the desert tortoise. This will be in the form of a fact sheet on the life history of the desert tortoise, legal protection for desert tortoises, the definition of take, penalties for violations of Federal and State laws, general tortoise activity patterns, reporting requirements, measures to protect tortoises, and personal measures employees can take to promote the conservation of desert tortoises. The fact sheet will include the pertinent terms and conditions of the biological opinion. The permittee will ensure that all employees working on the allotment are knowledgeable of the terms and conditions of the biological opinion.

f. The allotment shall be visited by a qualified BLM specialist to ensure compliance with the utilization standards and the stipulations of the grazing lease/permit. Conditions of non-compliance shall be rectified by BLM no later than the beginning of the following growing season, and reported to the Service.

g. In grazing allotments that include HMAs, combined usage shall not exceed the limits set above.

10. **Recreation Management**

The categories of recreational activities within the Planning Area include organized and unorganized non-OHV activities, unorganized OHV use, and organized OHV use. Non-OHV uses could include such activities as mountain bike rides/races, horse rides/races, hiking, cowboy action events, and wagon rides. These activities involve no motorized vehicles. Unorganized non-OHV activities and unorganized OHV use by individuals or small groups are classified as dispersed use and would not require a BLM permit. Organized OHV use includes competitive speed and non-speed events, as well as non-competitive events. The RMP's recreation determination limits vehicles to existing roads and trails in the Planning Area to protect threatened and endangered species.

Speed-based events are allowed on existing roads and trails subject to a current biological opinion (File No. 1-5-95-F-237.AMD) that has been extended by the Service. The opinion also allows for a motorcycle race course around the town of Beatty. BLM proposes to include OHV competitive events, including the motorcycle track, in this

biological opinion (BLM 2001a). Dual sport events are non-spectator events containing both speed and non-speed sections. The off-highway portions of these events would be subject to the same stipulations as OHV competitive events. Highway sections of the events are subject to existing traffic laws.

To minimize the potential effects to desert tortoise that may result from recreational activities in the Planning Area, BLM proposes to implement the following measures (BLM 2001a):

a. Entrants, pit crew members, crowd-control officials, race monitors, checkpoint personnel, and clean-up crews shall be informed, either through a presentation or a pamphlet, of the occurrence of desert tortoises in the race area, and the threatened status of the species. All such personnel shall be advised of the definition of "take," the potential for impacts to the desert tortoise, and the potential penalties (up to $25,000 in fines and 6 months in prison) for taking a threatened species in a manner not permitted in the incidental take statement. The permit holder shall provide a written statement for signature acknowledging receipt of information regarding the desert tortoise and any special stipulations in place for tortoise protection from all entrants. All race monitors and check-point personnel shall be provided the race stipulations and the procedures for reporting permit violations.

   Minors and responsible adults participating in mini-events shall be informed they shall not ride their all-terrain vehicles (ATVs) or motorcycles in the desert after they finish a mini-event. This includes the open desert as well as roads and trails. Failure to comply with this condition by any child associated with a particular rider shall result in the disqualification of that rider.

b. If a vehicle breaks down, it will be moved to the side of the race course, avoiding damage to vegetation to the extent possible. Participants who stop to rest will pull over onto side roads or areas devoid of perennial vegetation. Riders who retire from the race will either wait along the course for their crew to pick them up, or travel along the course to the pit area. Chase crews will be limited to retrieving vehicles that are broken down along the course. All chase vehicles must have a pit pass.

c. Spectator vehicles will be allowed in designated spectator areas only. Within desert tortoise habitat, spectator areas will be confined to existing disturbance areas. The promoter will be required to mark the boundaries of the spectator area so that spectators can readily tell where the boundary is located. A monitor,

appointed by the permit holder and recognized by BLM, will be placed at each spectator area, to ensure spectators remain within the designated boundary. Anyone found outside of the designated area will be subject to citation by a BLM law enforcement officer.

d. Pit crews will use only authorized pit areas. Pits shall be confined to existing disturbed areas. The pit area boundaries will be clearly marked to delineate the pit from the surrounding desert. On buggy races with pits, pit areas will be marked with a sign stating that a pit pass is required. A maximum of 10 pit passes will be issued to each entrant. Pit passes will have the name and date of the event and will be affixed to the windshield of the vehicle. Vehicles in the pit area without pit passes, will be towed at the owners' expense.

e. All event-related vehicular activities will be confined to authorized vehicle routes and the course itself, and will not stray into vegetated areas. All major access routes leading into restricted areas will be monitored, or marked closed and bannered off. Road markers, vehicle barricades, or signs will be installed either the day of the race or the day before the race. Personnel shall be stationed at these areas, as appropriate, to enforce access restrictions. Directional signs to spectator and pit areas will be posted at all main access points. Race-in-progress signs will be posted at each location where the race crosses another road. Other disqualification or hazard zones will be monitored periodically during the event.

f. BLM staff will be present during daylight hours of the event to check for compliance with stipulations of the race permit. The importance of staying on the race course will be stressed to all participants by BLM and promoter.

g. A sufficient number of monitors and crowd control officials, as determined by BLM's authorized officer, will be present at the event to enforce compliance with stipulations of the race permit.

h. Permittees shall be responsible for trash and litter clean-up along the course and in spectator and pit areas. Stakes, flagging materials, temporary facilities, litter, and all other event-related materials shall be removed from the course and pit, parking, and spectator areas. The race courses and parking areas shall be restored, at a minimum, to pre-race conditions within 15 days after the event. Garbage and food will be removed from the site of the event and will be disposed of in authorized sanitary landfills.

i. In order to reduce casual use of the race course, the promoter will be required to station monitors and/or post signs at road intersections, prohibiting public access, where the general public is likely to access the race course.

j. During race activities, any desert tortoises found on or adjacent to the race course shall be relocated into undisturbed desert within 1,000 feet by BLM personnel experienced and trained in the handling of tortoises, or BLM contractors experienced and trained in the handling of tortoises according to current approved protocol. This protocol is found in *Guidelines for Handling Desert Tortoises During Construction Projects* (Desert Tortoise Council, 1994, revised 1999). Tortoises shall be deliberately moved solely for the purpose of moving them out of harm's way. Desert tortoises shall not be placed on lands not under the ownership of the Federal government without the written permission of the landowner. All personnel involved in tortoise capture shall obtain appropriate permits from the Nevada Division of Wildlife (NDOW) prior to handling any desert tortoise.

k. Measures a, b, g, h, j, m, and n shall apply to publicity runs and mini-events. Because mini-events are held in conjunction with larger race events, measures c, e, g, and o will already be in effect. On publicity runs, event-related vehicular activity will be confined to authorized routes and the course itself, and will not stray into vegetated areas.

l. To the extent possible, the race promoter will have the race course cleared of all unauthorized vehicles and personnel prior to each race.

m. The authorized officer and wildlife staff will be responsible for overseeing compliance with the various terms and conditions and reporting requirements and shall provide coordination between the permit holder and BLM.

n. Participants in each race who violate any stipulation for that event shall be disqualified from the race. Additionally, failure to comply with the above stipulations by any member of the support team or spectators associated with a particular driver or rider shall result in the disqualification or that driver or rider.

o. To help control spectators, the event promoter will station at least one person at the primary entrance to the spectator area for at least two hours before the start of the race and one hour after the start of the race. This individual will stop all cars coming into the area, give the occupants information on the limits of the spectator area, and advise them where they can and cannot park.

p. Participants will be informed that passing on buggy, ATV, and motorcycle courses will be limited to the disturbed areas of roads, trails, and washes and will not occur in vegetated areas adjacent to the course.

q. Additional stipulations or modifications may be required based on terms and conditions in the biological opinion issued for a particular event.

r. Vehicles shall be limited to existing roads and trails within desert tortoise habitat.

11. **Hazardous Materials Management**

The objective of the hazardous materials management program is to minimize contamination of public lands and ensure public safety. Upon release of hazardous materials, several resources can be affected. Impacts on each of these resources must be evaluated and appropriate responses made. In the event of actual release of hazardous materials, these responses may require immediate removal/remediation. In the Planning Area, release of hazardous materials could occur as a result of transporting mishaps on roads in the area, or as the result of illegal dumping and or abandonment of chemicals, such as those associated with the mining industry. Sites would generally be on or near existing roads.

In cases of the discovery of hazardous chemicals with no release, removal and proper disposal of the chemicals should be done in an expeditious manner to reduce the hazard to the public and the chance of accidental release to the environment. Clean-up and/or removal would be performed by authorized personnel or appropriate government agency.

To minimize the potential effects to desert tortoise that may result from activities associated with hazardous materials management, BLM proposes to implement the following measures (BLM 2001a):

a. Hazardous materials personnel will determine whether the situation requires immediate clean-up. If immediate clean-up is required (emergency) due to risks to human life and/or substantial property and environmental damage, it shall proceed regardless of location or size. BLM and Service personnel will determine if emergency consultation should be initiated.

b. In non-emergency situations in suitable tortoise habitat the site will be surveyed by a qualified tortoise biologist using survey methods to provide 100 percent coverage. During the months of March through October the survey shall be

performed no more than three days prior to the start of clean-up; from November through February the survey shall be performed no more than five days before the start of clean-up. Tortoise and tortoise nests found on the site shall be relocated by a qualified tortoise biologist in accordance with Service-approved protocol (Desert Tortoise Council 1994, revised 1999). Injured or contaminated tortoises shall be taken to a veterinarian for treatment.

c. Disturbance shall be confined to the minimum amount necessary to perform the clean-up safely, efficiently and effectively.

Proposed Conservation Measures for All Surface Disturbing Activities

The purpose of these measures is to minimize potential effects to desert tortoise or its habitat in the Planning Area. The entire Planning Area is classified as low-density habitat with a lesser probability of take anticipated to occur as a result of proposed actions. Thus, less stringent measures are appropriate than for those used in moderate- or high-density habitats. All projects proposed to be covered by this consultation will be reviewed by BLM's wildlife staff prior to submitting them to the Service in accordance with the programmatic consultation procedures (Attachment A). These measures will apply to all activities which result in surface disturbance or potential take of desert tortoise. If determined appropriate by BLM's wildlife staff, BLM will propose additional minimization measures for specific projects.

The following measures are proposed for all projects involving new disturbance in the Planning Area:

1. The project applicant shall notify BLM at least 10 days before initiation of the project. Notification shall be made to the wildlife staff at (775) 482-7800.

2. BLM will provide a fact sheet on the desert tortoise describing its life history, its threatened status, legal protection for the desert tortoise, the definition of "take" and the penalties under the Act. The applicant shall ensure all employees, contractors, and subcontractors to be onsite receive the fact sheet. The applicant shall also ensure all employees, contractors, and subcontractors are familiar with the "terms and conditions" of the take provision of the permit.

3. BLM and the Service shall be notified of any desert tortoise death or injury due to project implementation by the close of business on the first business day following the date of the incident. BLM contact is the wildlife staff at (775) 482-7800. (Business hours are 7:30 AM to 4:30 PM.). The Service may be reached at (702) 515-5230.

4. All trash and food items generated by activities at the site shall be promptly contained in covered, raven proof containers and regularly removed from the site to a designated solid waste disposal site.

5. Whenever possible, overnight parking and storage of equipment and materials, including stockpiling, shall be in previously disturbed areas within the designated area.

6. All trenches, pits and other excavations should be checked for tortoises immediately prior to backfilling. The area underneath parked vehicles and equipment shall be inspected for tortoises that may have located themselves underneath the vehicle/equipment during the time it was parked.

7. A speed limit of 25 miles per hour shall be required for all vehicles on the project site and unposted dirt access roads.

8. The project site will be clearly marked or flagged at the outer boundaries before the onset of ground disturbance. All activities shall be confined to within the designated areas.

9. During construction activities, tortoise should be avoided whenever possible.

10. If a tortoise is found during construction or operation and is located in harm's way, the tortoise will be relocated using the approved protocol found in *Guidelines for Handling Desert Tortoises During Construction Projects* (Desert Tortoise Council, 1994, revised 1999). Tortoises shall be deliberately moved solely for the purpose of moving them out of harm's way. Desert tortoises shall not be placed on lands not under the ownership of the Federal government without the written permission of the landowner. All personnel involved in tortoise capture shall obtain appropriate permits from NDOW prior to handling any desert tortoise.

Due to the low-density tortoise population in the Planning Area, the following terms are proposed:

1. Reclamation: Habitat reclamation will be identified through the appropriate planning processes.

2. Onsite Tortoise Biologist: Projects will not require a tortoise biologist onsite during construction unless BLM and the Service determine the project requires a biologist onsite.

3. Tortoise Clearance: Tortoise clearance surveys may or may not be required for projects proposed under this programmatic biological opinion. If tortoise clearance is not required,

applicants or project proponents may voluntarily choose to search for and remove tortoises from lands to be disturbed within the project area. If tortoise clearance is required, or the project proponent chooses to perform voluntary search and removal of tortoises, the measures listed in 3.a. through i. below, shall be implemented.

a. BLM must approve the consulting firm/biologist selected by the applicant. Any biologist and/or firm not previously approved must submit a curriculum vitae and be approved by BLM before being allowed to represent BLM in meeting compliance of the terms and conditions of the "take" provision from the Service's biological opinion.

b. In accordance with *Procedures for Endangered Species Act Compliance for the Mojave Desert Tortoise* (Service 1992), a qualified desert tortoise biologist should possess a bachelor's degree in biology, ecology, wildlife biology, herpetology, or closely related fields as determined by BLM. The biologist must have demonstrated prior field experience using accepted resource agency techniques to survey for desert tortoises and tortoise sign. In addition, the biologist shall have the ability to recognize and accurately record survey results.

c. Any personnel assisting with implementing protective measures which require an approved wildlife biologist onsite must be under the direct field supervision of the approved wildlife biologist.

d. All appropriate NDOW permits for handling desert tortoises and their parts must be acquired by the tortoise biologist before construction and prior to handling any desert tortoise or part.

e. All construction sites, access routes, staging areas, fence lines, etc., will be cleared by a qualified biologist before the start of construction. The parcel shall be surveyed for desert tortoise using approved survey techniques which provide 100 percent coverage. During the tortoise active season, the preconstruction clearance shall be no more than three days before initiation of construction. During the tortoise inactive season (November 1 through February 28/29) the preconstruction clearance shall be within five days before work begins.

f. Desert tortoises encountered exhibiting symptoms of heat stress will be placed in an environment with a temperature between 76 degrees F and 95 degrees F, in 1 inch of water of like temperature for several hours, until symptoms are no longer evident.

g. Tortoises and nests found in the project area shall be relocated by a qualified tortoise biologist in accordance with Service-approved protocol (Desert Tortoise Council 1994, revised 1999). Burrows containing tortoises or nests will be excavated by hand or with hand tools, to allow removal of the tortoise eggs.

h. Tortoises moved offsite and released into undisturbed habitat on public land must be placed in the shade of a shrub, an unoccupied burrow similar to the one in which they were found, or an artificially constructed burrow.

i. Within 30 days after the completion of the project, the applicant/project proponent must submit a document showing the number of tortoises moved, injured, or killed (total take) during the project implementation.

4. Fees: Conservation fees apply only to future disturbance in low- and moderate-density tortoise habitat. Past disturbance or disturbance on land not considered tortoise habitat are not assessed a fee. Fees will be used to fund management actions which are expected to provide both direct and indirect benefits to the desert tortoise. These actions are described in the Management Oversight Group's report titled *Compensation for the Desert Tortoise* (Hastey et al. 1991) or the *Desert Tortoise (Mojave Population) Recovery Plan* (Recovery Plan) (Service 1994).

The fees are subject to adjustment based on the Consumer Price Index for All Urban Consumers (CPI-U), the most quoted and stable of the consumer price indices. The per acre rate for 2003 is $648. A project conducted during 2002 resulting in 100 acres of tortoise habitat disturbance would be assessed the following fee: $648 X 100 (number of acres) = $64,800.

Payment of $648 per acre of future disturbance of land designated as tortoise habit will be required for all projects prior to issuance of the lease, permit, or other BLM authorization, with the following exceptions:

- R&PP leases may be issued prior to payment of offsite fees. Payment of fees on R&PP leases will be deferred until immediately prior to surface disturbance. If the R&PP project consists of phased development of the lease area, fees will be paid for each phase immediately prior to surface disturbance of that phase.

- As many mining operations are conducted in phases over a number of years, offsite fees for the acres involved in a phase will be paid prior to the beginning of that phase.

- Other projects, such as parks, that are built in phases will be required to pay the fee for the acres involved in a phase before beginning disturbance for that phase.

- Projects impacting less than 0.25-acres will not be assessed a fee. The 0.25-acres refers to the total project area and does not apply to each phase of a project.

- Mineral material sales and leases will be charged a fee of 25 cents per yard up to the equivalent of $648 per acre of disturbance, or will be assessed $648 per acre for each phase of disturbance, at the discretion of BLM.

- Range and wildlife projects will be exempt from offsite fees. Range projects will include fences, pipelines, water hauls, spring developments, etc. Water projects will serve to improve range conditions through better distribution of water and thus better distribution of grazing animals. Gap fences and pasture fences will improve distribution of livestock. The overall, long-term impact of these projects on tortoise habitat is expected to be beneficial or neutral. Generally, wildlife projects, such as slickrock water catchments or riparian fences, will affect less than 0.25-acres. In some rare cases, the project may exceed 0.25-acres. However, these projects will generally have minimal impacts in the way of surface disturbance, and have beneficial impacts to the wildlife and habitat.

a. For Community Sand And Gravel Sales: Offsite conservation fees will be assessed on the basis of cubic yards of material removed from the project site. A fee of 25 cents per cubic yard will be applied until such time as the fees collected are equal to $648 per acre for each acre of surface disturbance. The acreage equivalent fee for this type project is $648 X the number of acres of disturbance proposed. The fee shall be paid directly to BLM while purchasing mineral materials at the Tonopah Field Station. The fee shall be deposited directly into the 5320 account administered by BLM.

b. For Projects Other Than Community Sand And Gravel Pits (including mineral material sales): Prior to issuance of the (permit, right-of-way grant, lease, etc. except R&PP leases), and prior to any surface-disturbing activity associated with the proposed project, the applicant shall pay a fee of $648 per acre for each acre of surface disturbance. This fee will be paid directly to the Desert Tortoise Public Lands Conservation Fund Number 730-9999-2315, administered by Clark County or any other administrator approved by BLM or the Service. The administrator serves as the banker of these funds and receives no benefit from

administering these funds. This rate will be indexed for inflation based on BLM of Labor Statistics Consumer Price Index beginning January 1, 2004 [and become effective for fees paid after March 1, 2004]. These funds are independent of any other fees collected by the county for desert tortoise conservation planning.

c. Administration: Payment shall be by certified check or money order payable to Clark County (or other administrator named by BLM or the Service), and delivered to:

Clark County
Department of Comprehensive Planning
500 South Grand Central Parkway, Third Floor
Las Vegas, Nevada 89155-1712

The payment shall be accompanied by a form completed by the payee. The form will be developed by BLM containing the following information:

- The project name, biological opinion number, BLM case number, and payee's name, address, and phone number.
- The amount of payment enclosed and the number of the check or money order.
- The project proponent or applicant may receive credit for payment of such fees and deduct such costs from desert tortoise impact fees charged by local government entities, if any. In addition, the form will be accompanied by a payment verification and delivered to:
  Bureau of Land Management
  Tonopah Field Station
  P.O. Box 911
  Tonopah, Nevada 89049
  Attn: Assistant Field Manager

The payment verification shall include a cover letter from the payee that identifies the following information:

- The project name, biological opinion number, BLM case number, and payee's name, address, and phone number.
- The amount of payment enclosed and the number of the check or money order.
- Copy of receipt from Clark County.

STATUS OF THE SPECIES

The desert tortoise, a large, herbivorous reptile, is generally active when annual plants are most common (spring, early summer, autumn). Desert tortoises usually spend the remainder of the year in sheltered sites, escaping the extreme weather conditions of the desert. Sheltering habits of desert tortoises vary greatly in different geographic locations. Shelter sites may be located under bushes, in the banks or beds of washes, in rock outcrops, or in caliche caves. The size of desert tortoise home ranges vary with respect to location and year. Females have long-term home ranges that are approximately half that of the average male, which range from 25 to 200 acres (Berry 1986). Over its lifetime, each desert tortoise may require more than 1.5 square miles of habitat and make forays of more than 7 miles at a time (Berry 1986). In drought years, the ability of tortoises to drink while surface water is available following rains may be crucial for tortoise survival. During droughts, tortoises forage over larger areas, increasing the likelihood of encounters with sources of injury or mortality including humans and other predators. Tortoises may require 20 years to reach sexual maturity (Turner et al. 1984). Further information on the range, biology, and ecology of the desert tortoise can be found in Berry and Burge (1984); Brussard and Bitten (1993); Burge (1978); Burge and Bradley (1976); Bury et al. (1994); Hovik and Hardenbrook (1989); Karl (1981, 1983a, 1983b); and Weinstein et al. (1987).

The range of the Mojave population of the desert tortoise includes a portion of the Mojave Desert and the Colorado Desert subdivision of the Sonoran Desert and spans portions of four states. The Mojave Desert is located in southern California, southern Nevada, northwestern Arizona, and southwestern Utah. It is bordered on the north by the Great Basin Desert, on the west by the Sierra Nevada and Tehachapi Ranges, on the south by the San Gabriel and San Bernardino Mountains and the Colorado Desert, and on the east by the Grand Wash Cliffs and Hualapai Mountains of Arizona. In Nevada, the native range of this species is generally restricted to Clark County and those portions of Nye, Lincoln, and extreme southern Esmeralda counties, south of the 37th parallel and below approximately 4,000 feet (1,220 meters) elevation.

The desert tortoise is most commonly found within the desert scrub vegetation type, primarily in creosote bush scrub vegetation, but also in succulent scrub, cheesebush scrub, blackbush scrub, hopsage scrub, shadscale scrub, microphyll woodland, and Mojave saltbush-allscale scrub (Service 1994). Within these vegetation types, desert tortoises potentially can survive and reproduce where their basic habitat requirements are met. Throughout most of the Mojave Region, tortoises occur most commonly on gently sloping terrain with soils ranging from sand to sandy-gravel and with scattered shrubs, and where there is abundant inter-shrub space for growth of herbaceous plants. Throughout their range, however, tortoises can be found in steeper, rockier areas. In Nevada, tortoises are considered to be active from approximately March 1 through October 31.

On April 2, 1990, the Service determined the Mojave population of the desert tortoise to be threatened (55 FR 12178). The Mojave population includes those animals living north and west of the Colorado River in the Mojave Desert of California, Nevada, Arizona, southwestern Utah, and in the Colorado Desert in California (a division of the Sonoran Desert). Reasons for the determination included loss of habitat from construction projects such as roads, housing and energy developments, and conversion of native habitat to agriculture. Grazing and off-road vehicles (ORV) have degraded additional habitat. Also cited as threatening the desert tortoise's continuing existence were illegal collection, upper respiratory tract disease (URTD), and predation on juvenile desert tortoises by common ravens (*Corvus corax*). Fire is an increasingly important threat to desert tortoise habitat. Over 500,000 acres of desert lands burned in the Mojave Desert in the 1980s. Fires in Mojave Desert scrub degrade or eliminate habitat for desert tortoises (Appendix D of Service 1994).

On February 8, 1994, the Service designated approximately 6.4 million acres of critical habitat for the Mojave population of the desert tortoise (59 FR 45748), which became effective on March 10, 1994. Approximately 1.2 million acres were designated as critical habitat in Nevada. Critical habitat units (CHU) were based on recommendations for desert wildlife management areas (DWMA) outlined in the *Draft Recovery Plan for the Desert Tortoise (Mojave Population)* (Service 1993a). These DWMAs are also identified as "desert tortoise areas of critical environmental concern (ACECs)" by BLM and in this biological opinion. Because the CHU boundaries were drawn to optimize reserve design, the CHUs may contain both "suitable" and "unsuitable" habitat. Suitable habitat can be generally defined as areas that provide the constituent elements of nesting, sheltering, foraging, dispersal, and/or gene flow. Of the 16 CHUs designated, 4 occur entirely, or partially within Nevada. The Service may issue an adverse modification opinion if it is determined that a proposed action was likely to preclude recovery of the tortoise in a particular CHU (Service 1993b). The Planning Area does not include any CHUs or portions thereof.

On June 28, 1994, the Service approved the final Recovery Plan (Service 1994). The Recovery Plan divides the range of the desert tortoise into 6 distinct population segments or recovery units (RU) and recommends establishment of 14 DWMAs or ACECs throughout the RUs. Within each DWMA/ACEC, the Recovery Plan recommends implementation of reserve-level protection of desert tortoise populations and habitat, while maintaining and protecting other sensitive species and ecosystem functions. The design of DWMAs/ACECs should follow accepted concepts of reserve design. As part of the actions needed to accomplish recovery, land management within all DWMAs/ACECs should restrict human activities that negatively impact desert tortoises (Service 1994). DWMAs/ACECs have been or will be designated by BLM through development or modification to RMPs in Nevada, Arizona, Utah, and California. The regulation of activities within critical habitat through section 7 (of the Act) consultation will be based on recommendations in the

Recovery Plan. Implementation of proposed actions described in this biological opinion would occur within the Northeastern and Eastern Mojave RUs.

Although recovery of the tortoise will focus on DWMAs/ACECs, section II.A.6. of the Recovery Plan and section 2(b) of the Act provide for protection and conservation of ecosystems on which federally-listed threatened and endangered species depend, which includes both recovery and non-recovery areas. The Mojave Desert ecosystem, of which the desert tortoise and its habitat are an integral part, consists of a dynamic complex of plant, animal, fungal, and microorganism communities and their associated nonliving environment interacting as an ecological unit (Noss and Cooperrider 1994). Actions which adversely affect components of the Mojave Desert ecosystem directly or indirectly affect the desert tortoise. The Recovery Plan further states that desert tortoises and habitat outside recovery areas may be important in recovery of the tortoise. Healthy, isolated tortoise populations outside recovery areas may have a better chance of surviving catastrophic effects such as disease, than large, contiguous populations (Service 1994).

ENVIRONMENTAL BASELINE

The Planning Area is located at the northern end of the Amargosa Valley, also encompassing the southern limits of the Oasis Valley and within the Great Basin region of the Basin and Range Province. The Great Basin region is characterized by north-trending mountain ranges separated by alluvial valleys. The Bullfrog Hills, to the west of the area, is generally composed of gently dipping Tertiary volcanic ash flows and air-fall tuffs of rhyolitic composition (BLM 1988). The main mass of Bare Mountain is composed of late Precambrian to late Paleozoic sedimentary rocks subjected to repeated episodes of folding and faulting; the hills at the north end are composed of flows of Tertiary rhyolite and basalt (BLM 2000a). Mainly due to elevation, Bare Mountain occurs as an "island" of non-habitat within the habitat area. The Oasis Valley is the headwaters of the Amargosa River, an intermittent stream fed by several upland springs in the valley north of Beatty and runoff from surrounding hills. Two miles of the Amargosa River are on public land in the project area.

The Planning Area has a history of mining operations for various ores, predominantly gold, dating back to the early 1900s. Many of the private parcels in the area are patented mining claims. Recent mining activities include two gold heap leach operations now in reclamation, both of which greatly exceeded 240 acres. Over 50 notice-level activities in the Planning Area have been successfully reclaimed. In the Planning Area, there are currently 18 notice-level activities, all filed before the November 2000 revised regulation took effect. The Bullfrog Mining District, located in the Bullfrog Hills, is noted as a producer of gold, silver, copper and lead. The Fluorine, or Bare Mountain District, has produced fluorite, gold, mercury, kaolin, silver and opal. Gold production flourished in the area in the 1990's, leading to a large amount of disturbance of public land, now in

the process of reclamation. Minor, sporadic activities involving the mining of specialty clays and decorative rock continue to take place, as well as some precious metals exploration.

The population of the Beatty area is 1,173, according to year 2000 U.S. Census BLM data. Beatty's population has declined in recent years (1990 census data listed 1,710 residents) due to the closing of gold mines in the project area. The town is about one square mile in size and is situated near the center of the Planning Area. Historically, the lands have been used for grazing, mining, and agricultural purposes; modern use is generally restricted to private residence.

The Planning Area is bisected by U.S. Highway 95, the highway between Reno and Las Vegas. Beatty is one of the few communities along the southern portion of this route and boasts five motels. The town is often called a gateway to Death Valley National Park as State Route 374 leading into the Park intersects with U.S. Highway 95 within the town. Increasingly, the businesses of Beatty rely on tourism for economic survival. The ghost town of Rhyolite, a few miles west of Beatty, also attracts tourists.

Status of the Species in the Action Area

Alice Karl (1981) conducted transect surveys in 28 townships in Nye County. Seven of these transect surveys were conducted in what is now the Tonopah Planning Area. No tortoise sign was found on any of the transects. Based on these findings, the Planning Area was designated as low-density habitat by BLM in 1988.

From 1990 to 1999, several project-specific surveys were conducted which provided 100 percent coverage of the proposed project footprint with zone-of-influence (ZOI) surveys, in support of proposed mining actions. Surveys conducted after 1992 were performed in accordance with the protocol identified in *Procedures for Endangered Species Act Compliance for the Mojave Desert Tortoise* (Service 1992). A compilation of information was gathered from the reports of these surveys (BLM 2001a). Some survey information could not be included due to the lack of maps or unclear nature of the text. The total area of 100 percent clearance surveys in the project area was approximately 2,225 acres. Linear footage of transects completed in the ZOI surveys amounted to approximately 151 miles and covered an additional 548 acres. Table 1 is a compilation of data from these surveys. Due to insufficient information in some of the reports, total lengths of transects could not be discerned. Although these transects are not represented as acreage or linear footage, any tortoise or sign found during these surveys is included on Figure 4.

Table 1. Desert Tortoise Survey Results for Tonopah Planning Area

Survey Name	Year	100% Acres	ZOI transects Linear feet	ZOI Acreage	Tortoise or Tortoise Sign
ERC Three Mile Road	1990	22	--	--	0
Converse Gold Bar BF	1990	69	--	--	0
Converse Gold Bar Bon.	1990	324	--	--	0
Harry Reid Communication	1993	--	--	--	2 Tortoises*, 1 Scat
Greystone BF Leach Pad	1995	755	210,900	145	0
Greystone Pit and Waste	1995	214	66,500	46	0
Greystone Beatty Water	1995	160	88,290	61	0
Greystone Bonanza Mtn.	1995	160	93,000	64	0
JBR Secret Pass	1995	587	71,700	49	Summer Pallet, Old
Gochnour BF Tailings	1996	5	24,900	17	0
JBR Daisy ZOI	1996	--	82,000	56	1 Scat, 2 Burrows
Darling Material Site	1997	14	--	--	0
Bechtel Test Wells	1997	0.4	71,923	50	0
Converse Daisy	1998	60	22,380	15	0
Converse Daisy SNA**	1999	60	--	--	0
Rowland Land Sale	1999	6.4	2,640	2	0
Abandoned Mine Accident	1999	2.8	62,940	43	1 Tortoise, 1 Burrow
TOTALS		2439.6	797,173	548	3 tortoises, 3 burrows,

* Tortoises found on way to and from actual site survey site

**Map not found

During the 17 surveys, three tortoises were found. Two of the tortoises were observed en route to or from the same survey site. With the inclusion of these tortoises, a total of 10 tortoise or tortoise sign were found during the 17 surveys. Eleven potential cover sites were noted in the surveys but could give a false impression of density if, as noted by Karl, the transect line passes through a single tortoise's home range or a burrow cannot be determined to be that of a tortoise (Karl 1981).

Figure 4
Desert Tortoise Sign and Surveys

1:95654

Legend

- Boundary - Desert Tortoise Habitat
- Tortoise Survey Area
- Road Surveys
- BLM - Karl 1980 Transect
- Tortoise and Tortoise Sign

8/16/01 MAP
m:/gis3/deertortoise/dt0814

"No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual use or aggregate use with other data."

Burrows which were plotted by location on survey maps are included as sign on Figure 4. Information gathered from the review of these surveys support BLM's designation of low-density habitat for the Planning Area.

Two permanent tortoise study plots are located outside the Planning Area in the vicinity of Pahrump: Trout Canyon and Last Chance. Populations on the Trout Canyon Study plot in 1987 were estimated to be low (10-45 tortoises per square mile). Last Chance study plot was read only once, in 1979. Based on study plot and transect data, tortoise density in the area is estimated at 10 tortoises per square mile.

No estimates are available on the number of hatchling, juvenile, or sub-adult tortoises in Clark or Nye Counties. However, the actual number of tortoises within these age classes may exceed the number of adults. NDOW (1990) estimated that between 26,065 and 161,375 wild tortoises occur in Nevada. This estimate was based on 1,425 strip transects conducted in southern Nevada between 1985 and 1989.

Data compiled by Southern Nevada Environmental (1998) for tortoises collected by the Clark County Desert Tortoise Pick-up Service (administered under the Clark County HCP) indicate that tortoise activity in southern Nevada increases substantially in March, with peak activity during the months of April-June, and August-October. Rostal et al. (1994) found that spermatogenesis measured in 20 male desert tortoise, began to rise in June and peaked in August, and continued into October. Spring mating began in March and continued into May; fall mating began in August and continued into October. Ninety percent of the females (n=30) in the study had ovulated by April 30th and were shelling eggs in their oviducts, with nesting beginning in May.

Habitat parameters that limit the distribution of desert tortoise within the Planning Area include: Vegetation, elevation, soil types and ecological landform unit, which are described below.

Vegetation: In the Planning Area creosotebush has been considered an important determinant of tortoise habitat suitability. The plant grows in the less alkaline soils found at the foot of alluvial fans and due to the long life of the plants an organic layer accumulates underneath the plant, creating a suitable habitat for a diversity of annual plants, many of which serve as forage for the tortoise (Oldemeyer 1994). Creosotebush also often serves as a shelter site for tortoises. Associated shrub species in the creosotebush community include Anderson wolfberry (*Lycium andersonii*), California buckwheat (*Eriogonum fasciculatum*), goldenhead (*Acamptopappus shockleyi*), Nevada ephedra (*Ephedra nevadensis*), goldenweed (*Haplopappus spp.*), and desert aster (*Xylorhiza tortifolia*). The sparse understory includes red brome (*Bromus rubens*), filaree (*Erodium cicutarium*), and desert trumpet (*Eriogonum inflatum*) (BLM 1988). In 1981 Karl noted that tortoise sign was found entirely within the creosotebush, bursage (*Ambrosia dumosa*)

community in Nye County and tortoise density decreased with the addition of blackbrush (*Coleogyne ramosissima*) as a major component of the shrub layer.

Blackbrush domination begins at about 4,000 feet (1,220 meters) and also includes Nevada ephedra, Anderson wolfberry, winterfat (*Ceratoides lanata*), and goldenweed (BLM 1996). A 1994 report regarding the Nevada Test Site, which occurs a few miles east of the Planning Area, used the assumption that tortoises were rare or not found in stands of blackbrush where creosotebush and bursage were rare or absent (EG&G/Energy Measurement 1994). However, a 1997 report regarding Yucca Mountain found tortoise in blackbrush dominated vegetation associations (TRW 1997).

Annual plant species are very important to the desert tortoise. In a study area typical of the western Mojave Desert, Jennings (1997) noted that about 70 percent of the bites taken by observed tortoises were on annuals. As previously mentioned, desert tortoises are most active when annual plants are most common. When winter precipitation is sufficient, desert annuals produce the greatest amount of grass and forb biomass in the Mojave Desert (Oldemeyer 1994). With adequate precipitation in the winter, annuals may have a life cycle of up to 8 months; when precipitation does not occur until late winter, the life cycle may be as short as 6 to10 weeks (Beatley 1967).

Elevation: The Nye County transect surveys done by Karl (1981) contained a maximum elevation of 4,320 feet (1,317 meters). Tortoise sign was found between 2,400 feet (732 meters) and 4,000 feet (1,220 meters), the latter elevation coinciding with the beginning of dominance of the blackbrush vegetation community. A 1994 EG&G/Energy Measurements report on the Nevada Test Site assumed tortoise are uncommon above 4,900 feet (1500 meters) and very rare or not found above 5,250 feet (1,600 meters). Transects conducted on the Nevada Test Site in 1991 found tortoise sign at an elevation up to 5,150 feet (1,570 meters). It is noted that only one sign was found on 6.8 miles (11 kilometers) of transects walked at elevations greater than 4,920 feet (1,500 meters) (EG&G/Energy Measurements 1994).

Soils: The majority of the Planning Area is comprised of the valley fill sediments at the bases of Bare Mountain and the Bullfrog Hills. These sediments are composed of gravel, sand, and silt deposited by slope wash, wind, and lakes. Thickness of these deposits in the project area varies from very thin on the slopes of the hills to several hundred feet thick in the valleys (BLM 1988). At higher elevations, slopes and hilltops are often composed of extensive bedrock exposures (BLM 1996).

The climate of the Planning Area facilitates natural processes that tend to break down rocks by disintegration rather than by decomposition. Mechanical breakdown is more common than

breakdown associated with chemical action. During sometimes torrential rain events, rock fragments from the mountains are swept into ravines and valleys, the coarser materials forming alluvial fans while finer grained materials are washed into the lowlands (BLM 1997a). Storm events in the area can result in flash floods that may deposit layers of differing soil types in drainage channels and adjacent areas (BLM 1988).

Northeast of Bare Mountain, soils in the blackbrush communities are usually shallow gravelly or coarse-grained. Where creosote bushes are found the soils are generally deeper and fine-grained (JBR Environmental Consultants 1995). The main soil unit in the southwestern portion of the Planning Area is a gravelly to very gravelly sandy loam alluvium from mixed rock sources. The associated vegetation in this portion of the Planning Area is creosote and white bursage. This area is interspersed on higher elevation fan remnants by a soil unit that is highly alkaline. Oldemeyer (1994) noted creosote grows where drainage is good and soils have a low salt content.

Soils in desert tortoise habitat provide shelter and forage for the tortoise. Marlow and Tollestrup (1982) presented the theory that tortoises actively mine and consume soils with high calcium content. Esque, et al. (1994) noted that desert tortoises consumed cattle and rabbit bones which could also be a means for obtaining calcium. Studies on the Nevada Test Site found tortoises to be more common on or near mountains of Paleozoic origin limestone and dolomite mountains than mountains of volcanic origin (EG&G/Energy Measurements 1991).

Ecological Landform Units: Shortly after the tortoise was listed as threatened in 1990 and prior to the approval of survey methods, one consultant performed an area survey based on topography, soil quality and vegetation, of areas which appeared to have high potential for desert tortoise occurrence. During BLM clearance of portions of the motorcycle race track encircling the town of Beatty this type of survey was done with the landform unit being cut bank washes (BLM 2001a; Brown, L. G., Wildlife Biologist, BLM, Tonopah, pers. comm). In another survey, area surveys of landform units where tortoise were thought most likely to be found were suggested by the Service and performed by the consulting biologists, as well as the standard 100 percent clearance surveys and ZOI surveys in the Service's procedures protocol (Service 1992).

This type of transect survey of small ecologically homogenous units of land has been used on the Nevada Test Site. As opposed to habitat type or vegetation type, the sampling units are small and uniform, with similar elevation, slope, aspect, soil, geologic parent material and vegetation. Earlier surveys of large heterogenous areas failed to identify the variability of habitat and tortoise density that can exist in large areas. This type of transect information from the Nevada Test Site indicated higher numbers of tortoise sign on upper piedmont slopes and mountain slopes than in valley bottoms. (Woodward et al. 1998).

Description of Affected RUs

Because recovery of the desert tortoise is assessed at the RU level, populations within RUs can be recovered and delisted individually. Similarly, the jeopardy and adverse modification standards may be applied within or across RUs (Service 1993b). The Planning Area occurs within the Eastern and Northeastern Mojave RUs, which are described below.

Overview of the Northeastern Mojave RU

The Northeastern Mojave RU occurs primarily in Nevada, but it also extends into California along the Ivanpah Valley and into extreme southwestern Utah and northwestern Arizona. Within this RU, the Recovery Plan recommended designation of the following ACECs/DWMAs: Piute-Eldorado; Beaver Dam Slope; Gold Butte-Pakoon; Mormon Mesa; Coyote Spring; and Ivanpah. BLM's Las Vegas Field Office designated portions of the Piute-Eldorado, Mormon Mesa, and Gold Butte-Pakoon ACECs, and all of the Coyote Spring ACEC. BLMs' Ely Field Office designated portions of the Mormon Mesa and Beaver Dam Slope ACECs, and all of the Kane Springs ACEC in the Caliente MFP Amendment (BLM 2000b). BLM's Dixie and Arizona Strip Field Offices designated the remaining portions of the Beaver Dam Slope ACEC and all of the Virgin Slope ACEC in their RMPs. In total, approximately 1.8 million acres of tortoise habitat has been designated as desert tortoise ACEC/DWMA in the Northeastern Mojave RU.

Vegetation within this RU is characterized by creosote bush scrub, big galleta-scrub steppe, desert needlegrass scrub-steppe, and blackbrush scrub (in higher elevations). Topography is varied, with flats, valleys, alluvial fans, washes, and rocky slopes. Much of the northern portion of the RU is characterized as basin and range, with elevations from 2,500 to 12,000 feet. Desert tortoises typically eat summer and winter annuals, cacti, and perennial grasses. Desert tortoises in this RU, which represent the northernmost distribution of the species, are typically found in low densities (approximately 10 to 20 adults per square mile). Impacts to desert tortoise within this RU include: Livestock grazing; mining; urban and agricultural development; OHV activity; military activities; disease; utility corridors; and wildfires. The major urban area in the Northeastern Mojave RU is the Las Vegas Valley.

Overview of the Eastern Mojave RU

The Eastern Mojave RU, located primarily in California, extends into Nevada in the Amargosa, Pahrump, and Piute Valleys. It lies directly to the north of the Northern Colorado RU, with the western bank of the Colorado River as an eastern boundary. This RU is isolated from the Western Mojave RU by the Baker Sink, where desert tortoises do not occur.

Approximately 1.2 million acres of designated critical habitat occur in the Eastern Mojave RU. This includes approximately 254,300 acres of BLM and National Park Service (NPS) lands in Nevada and 958,200 acres of BLM and NPS lands in California. In the Nevada portion of the RU, the Piute-Eldorado ACEC/DWMA was designated by BLM's Las Vegas District RMP and NPS land use planning efforts. The Piute-Fenner, California and Ivanpah-Shadow Valley, California have not been designated at this time. These three areas will be managed to achieve the objectives of the Recovery Plan. Because exact ACEC boundaries in California are not known at this time, BLM assumes that all of the designated critical habitat in the Eastern Mojave RU will be managed for tortoise recovery and that the major elements of the Recovery Plan will be implemented.

The Mojave National Preserve, administered by California offices of BLM and NPS, is currently involved in a planning effort which includes desert tortoise habitat within the Eastern Mojave RU. However, completion of the Northern and Eastern Mojave Coordinated Management Plan is not complete.

Vegetation within the eastern portion of this unit is transitional between the Colorado Desert and the Mojave Desert communities and is represented by big galleta-scrub steppe, succulent scrub (*Yucca* and *Opuntia* species), creosote bush scrub, cheesebush scrub (east Mojave type), and Indian rice grass scrub-steppe. Desert tortoises are active here in the spring and in late summer/early autumn because this region receives both winter and summer rains, resulting in two distinct annual floras on which tortoises can feed. These desert tortoises occupy a variety of vegetation types, and feed on summer and winter annuals, cacti, perennial grasses, and herbaceous perennials. Topography is characterized by flats, valleys, alluvial fans, washes, and rocky slopes. Elevations range from 1,600 to 4,900 feet.

Current population densities within ACECs/DWMAs proposed by the Recovery Plan for the Eastern Mojave RU are patchy and varied, with pockets of high densities (5 to 350 tortoises per square mile, with an average density of 25 adult tortoises per square mile). High-density populations, which are thought to have occurred historically throughout this unit, have been impacted over the years by a combination of disease, cattle grazing, military operations, and other forms of human-caused disturbances. With appropriate long-term management in protected areas, it is likely that population densities of 60 to 75 adult desert tortoises per square mile can be obtained (Service 1994).

Summary of Take Authorized under Section 10(a)(1)(A) of the Act in the Planning Area

Prior to March 5, 2002, the Service issued a total of 42 biological opinions for actions that may adversely affect the desert tortoise and occurred entirely (n=32) or partially (n=10) in Nye

County, Nevada. All of these biological opinions authorized incidental take of desert tortoise. The process of determining the actual take which results from a given project is difficult, at best, and the number of tortoises actually taken is likely to differ substantially from those reported or observed. This discrepancy is due in part to the difficulty in locating all tortoises in a given area, particularly hatchlings and juveniles. Circle Mountain Biological Consultants (CMBC) (1996) conducted an evaluation of 108 biological opinions written by the Service in Nevada and in California, from 1990 through 1995. CMBC found that only 536 tortoises were reported taken in the form of harassment, although 1,742 were authorized, not including four opinions with "unlimited" harassment take. Similarly, only 6 tortoises were reported killed or injured out of 702 authorized.

The Service believes tortoises are taken unknowingly during project activities (e.g., buried by earth-moving equipment). Although the actual number of tortoises killed, injured, or harassed cannot be determined with a high degree of accuracy and must be estimated, the number of tortoises authorized to be taken in the incidental take statement of a biological opinion is likely to be substantially greater than those actually taken for most projects. The Service believes that implementation of minimization measures, and terms and conditions of biological opinions, result in a substantial reduction in the number of tortoises actually taken.

An unknown number of projects covered by biological opinions issued by the Service have not, and likely will not, occur. However, unless withdrawn, these proposed projects have been authorized by the Federal agency, and the Service includes the anticipated habitat loss and incidental take in the environmental baseline for the desert tortoise.

Summary of Major Consultations for Desert Tortoise in Nye County

File No. 1-5-96-F-33. On August 22, 1996, the Service issued a biological opinion to the Department of Energy/Nevada Operations (DOE/NV) for programmatic activities on the Nevada Test Site over the 10-year term of the biological opinion . The NTS occupies 1,350 square miles in Nye County, approximately 65 miles northwest of Las Vegas. All land on the NTS is managed by DOE/NV, and access is strictly controlled. Between 3,000 and 4,000 people work at the NTS, with the majority residing in Mercury, Nevada. Although large parts of the NTS have been affected by human activities, the majority of the site remains relatively undisturbed. Most disturbances are concentrated in the bottom of Yucca, Frenchman, and Jackass Flats, and on parts of the Pahute and Rainer Mesas. In the biological opinion, the Service concluded that up to 13 desert tortoises may be taken as a result of DOE/NV activities, and a total of 3,015 acres of desert tortoise habitat may be disturbed during project construction over the 10-year period.

File No. 1-5-96-F-307R. On July 23, 1997, the Service issued a biological opinion to DOE for programmatic activities associated with site characterization studies at Yucca Mountain, Nye County, Nevada. The Yucca Mountain site is located on the NTS and is under evaluation for a permanent high-level nuclear waste repository. In the biological opinion, the Service concluded that up to 8 desert tortoises may be killed or injured and 10 tortoises per year may be captured and moved out of harm's way. A total of 450 acres of desert tortoise habitat may be disturbed during project construction over the 10-year period of the project.

File No. 1-5-00-F-518. On August 27, 2001, the Service issued a biological opinion to DOE for construction, closure, operation, and maintenance of a nuclear repository at Yucca Mountain, which is the next sequential phase of the project following the site characterization studies described above. In the biological opinion, the Service concluded that up to 15 desert tortoises may be killed or injured. An unknown number of desert tortoises may be killed or injured on project-related roads; however, the Service anticipates that fewer than five tortoises per year would be killed on injured on these roads. All desert tortoises encountered within the project area or roads associated with the project may be taken by capture and movement out of harm's way; the Service estimates that no more than 60 desert tortoise will be captured and moved during the project. A total of 1,643 acres of desert tortoise habitat may be disturbed during the life of the project.

Summary of Desert Tortoise Take Authorized under Section 10(a)(1)(B) of the Act in Nye County

On July 11, 1995, the Service issued an incidental take permit (PRT-801045) to Clark County, Nevada, including cities within Clark County and NDOT, under the authority of section 10(a)(1)(B) of the Act. The permit became effective August 1, 1995, and allowed the "incidental take" of desert tortoises for a period of 30 years on 111,000 acres of non-Federal land in Clark County and approximately 2,900 acres associated with NDOT activities in Clark, Lincoln, Esmeralda, Mineral, and Nye Counties, Nevada. The Desert Conservation Plan (DCP) served as the permittee's habitat conservation plan which included measures to minimize, avoid, and mitigate the effects of covered activities, on desert tortoises (Regional Environmental Consultants 1995).

On November 22, 2000, the Service issued an incidental take permit (TE-034927-0) to Clark County, including cities within the county and the NDOT, for the listed desert tortoise, southwestern willow flycatcher (*Empidonax traillii extimus*), and 76 unlisted, un-proposed species (Clark County and Service 2000). This multiple species habitat conservation plan (MSHCP) and permit supercedes the DCP and its associated incidental take permit and provides coverage for the same areas as the DCP. In the intra-Service biological/conference opinion (File No. 1-5-FW-575) for approval of the MSHCP and issuance of an incidental take permit, the

Service determined that covered actions would not jeopardize the continued existence of any of the covered species.

Under the special permit terms and conditions of the permit, take of avian species, with the exception of American peregrine falcon (*Falco peregrinus anatum)* and phainopepla (*Phainopepla nitens*), would not be authorized until conservation actions in desert riparian habitats along the Muddy and Virgin rivers, and Meadow Valley Wash have occurred. The incidental take permit allows incidental take of covered species for a period of 30 years on 145,000 acres of non-Federal land in Clark County, and within NDOT rights-of-way, south of the 38th parallel in Nevada. The MSHCP serves as the permitees' habitat conservation plan and details their proposed measures to minimize, monitor, and mitigate the effects of covered activities on the 78 species, which includes the desert tortoise. In addition to measures specified in the MSHCP and its implementing agreement, the permittees shall comply with the special terms and conditions of the permit and measures stated in sections 3C and 3D of the 1995 habitat conservation plan, which were incorporated by reference into the MSHCP and incidental take permit.

The permittees will impose, and NDOT will pay, a fee of $550 per acre of habitat disturbance to fund these measures. The permittees propose to expend $4.1 million per biennium, as adjusted to reflect cost of living increases, to minimize and mitigate the impacts to covered species. It is anticipated that the majority of these funds will be used to implement minimization measures, such as increased law enforcement; construction of highway barriers; road designation, signing, closure, and rehabilitation; and tortoise inventory and monitoring. The benefit to the covered species, as provided by the MSHCP, should substantially minimize and mitigate those effects which will occur through development within the permit area and aid in recovery of listed species and conservation of unlisted species. With the exception of NDOT rights-of-way, non-Federal lands outside Clark County are not covered under the MSHCP and incidental take permit.

On February 10, 1995, the Service issued an incidental take permit (PRT-776604) to Nye County for development and operation of a landfill near Pahrump, Nevada. The permit authorized take of 20 desert tortoises and loss of 80 acres of tortoise habitat as a result of the landfill for the next 30 years. Over the term of permit, Nye County shall transfer up to a total of $25,920 into a desert tortoise trust fund as mitigation for the alteration of up to 80 acres of suitable desert tortoise habitat in the project area. These funds shall be used for the purchase, installation, and maintenance of cautionary tortoise road signs. Surplus funds will be used for public education on the Mojave Desert and its inhabitants, including the desert tortoise, or develop a museum in Pahrump.

EFFECTS OF THE PROPOSED ACTION ON THE LISTED SPECIES

Direct effects encompass the immediate, often obvious effect of the proposed action on the tortoise or its habitat. Indirect effects are caused by, or result from, the proposed action, are later in time, and are reasonably certain to occur. In contrast to direct effects, indirect effects are more subtle, and may affect tortoise populations and habitat quality over an extended period of time, long after construction activities have been completed. Indirect effects are of particular concern for long-lived species such as the tortoise because project-related effects may not become evident in individuals or populations until years later.

Direct Effects

Tortoises may be killed or injured by project vehicles, captured and displaced from the project area, and alter their behavior as a result of noise and ground vibration produced by heavy equipment. Tortoises and their burrows may be crushed or destroyed as a result of ground-clearing actions or by project vehicles that stray outside the project area. If trenches or open pits remain open, tortoises may fall into them and be killed or injured. Seismic surveys may collapse burrows, harm tortoises, or cause tortoises to alter their activities.

Based on study plot and transect data, approximately 10 desert tortoises occur per square mile of habitat within the Planning Area. Therefore, approximately 50 desert tortoises may be taken over the 10-year term of this biological opinion within the 3,200 acres (5 square miles) of the area affected by actions authorized by BLM and, an additional 170 tortoises that may occur on the 10,800 acres (17 square miles) proposed by BLM for disposal.

Measures proposed by BLM to: (1) Mark or flag project boundaries; (2) require tortoise clearance surveys if BLM and Service determine they are necessary; (3) restrict project vehicle speed to 25 mph speed limit; (4) restrict vehicle travel and habitat disturbance to designated areas; (5) capture, handle, and relocate tortoises encountered in accordance with Service-approved protocol, by qualified individuals; (6) implement tortoise education programs; (7) limit the distance of seismic surveys to tortoise burrows; and (8) require HCPs for disturbance of lands transferred from Federal administration, if appropriate, should minimize most of these effects.

Handling of desert tortoises. Project or event personnel could illegally collect tortoises for pets, removing them from the wild population. Tortoises that are physically moved out of project areas to prevent mortality or injury could be inadvertently harmed if not handled properly. Urine and large amounts of urates are frequently voided during handling and may represent a severe water loss, particularly to juveniles (Luckenbach 1982). Overheating can occur if tortoises are not placed in the shade when ambient temperatures equal or exceed temperature maximums for the

species (Desert Tortoise Council 1994, revised 1999). Displaced tortoises may re-enter project areas and appear in harm's way.

If a tortoise is encountered during construction or operation in harm's way, BLM proposes to minimize the potential effects of handling by: (1) Allowing only individuals trained and experienced in handling tortoises to handle them, and (2) implementing Service-approved handling protocol (Desert Tortoise Council 1994, revised 1999).

Habitat disturbance and loss. During the 10-term of this biological opinion, up to 3,200 acres of tortoise habitat may be disturbed or destroyed and up to 10,800 acres transferred out of Federal administration. This level of habitat loss may directly impact less than 20 percent of the 70,600 acres of tortoise habitat in the Planning Area. Habitat loss and disturbance would occur as a result of rights-of-way grants issued by BLM, BLM approval of R&PP and FLPMA leases, minerals management actions, various BLM-initiated projects, wild burro use, livestock grazing, and hazardous materials management actions.

Habitat disturbance caused by project vehicles and equipment, and movement by livestock and wild burros, often result in damage to desert soils which are protected by fragile organic or inorganic crusts. The organic crust can be the result of various microflora such as algae, lichen, and fungi, which form cryptogams or macroflora consisting of the remnants of fibrous root material from dead annual plants (Cooke and Warren 1973; Went and Stark 1968). The inorganic crust can be comprised of desert pavement, silt/clay, or chemicals. All of these crusts help prevent erosion, and may increase infiltration and retard evaporation (Epstein *et al.* 1966).

Mechanical disturbance of desert soils may cause: (1) changes in annual and perennial plant production and species composition including introduction of non-native plants, including noxious weeds, or increase the area of distribution of weeds in the Planning Area; (2) outright soil loss due to increased rates of water and wind erosion; (3) reduced soil moisture; (4) reduced infiltration rates; (5) changes in soil thermal regime; and (6) compaction or an increase in surface strength (Adams, *et al.* 1982; Biosystems 1991; Burge 1983; Bury 1978; Bury and Luckenbach 1983 and 1986; Davidson and Fox 1974; Hinkley *et al.* 1983; Nakata 1983; Vollmer *et al.* 1976; Webb 1983; Wilshire 1977 and 1979; Wilshire and Nakata 1976; Woodman 1983). When the soil surface is exposed by vehicular activity (e.g., OHVs), the thermal insulation provided by the vegetative cover is decreased, which results in increased daytime temperatures. Higher temperatures decrease the soil moisture, which causes soil temperature to increase further because less heat is required to vaporize the water present. Revegetation is inhibited as a result of these processes (Webb *et al.* 1978).

BLM proposes to implement the following measures to minimize impacts to tortoise through loss or disturbance of its habitat: (1) Restrict vehicles, equipment, and materials to designated areas; (2) prohibit vehicular activity off existing roads and trails; (3) review disturbances for possible reclamation; (4) impose fees to promote recovery of the tortoise, including offsite habitat enhancement; and (5) mark and flag project boundaries.

Effects of Recreational Activities in the Planning Area on the Desert Tortoise. Actions proposed by BLM for recreation management should not result in additional habitat disturbance beyond existing baseline conditions. However, effects to tortoise may occur as a result of permitted and casual, dispersed recreation activities that violate stipulations imposed by BLM. Historically, it has been difficult to control spectators at many OHV events, which has resulted in substantial environmental and habitat damage (Burge 1983). OHVs, operated by spectators of an organized event, may enter unauthorized areas or travel cross-country to observe a race, causing adverse effects on individual desert tortoises or their habitat (Burge 1983, Woodman 1983). The NDOW has documented that an unauthorized trail became incorporated into an OHV event course near Johnnie, Nevada (NDOW 2002). Unauthorized route proliferation, crushing of shrubs, and wind erosion resulting from vehicle disturbance contribute to habitat degradation and loss. Although BLM restricts OHV events to existing roads and trails, vehicles that stray off existing roads and trails may collapse occupied burrows, crushing nests and burying the occupants (Burge 1983, Bury 1978 and 1980, Bury and Marlow 1973). Studies have shown that in areas of moderate to intensive OHV use, the number of perennial shrubs, as well as tortoise reproduction and body mass, are reduced (Biosystems Analysis 1991, Bury and Luckenbach 1986, Bury 1987). OHV activities reduce floral diversity and forage species availability for tortoises, which result in reduced or no growth (Medica *et al.* 1976, Webb *et al.* 1978).

Bury (1987) demonstrated that desert tortoise densities and health deteriorated as a result of ORV activities when contrasted to populations from appropriately controlled areas. OHV impacts to the soils and vegetation of desert ecosystems that support the desert tortoise, are well documented and may affect tortoise populations and habitat quality over a long period of time. Many of these effects are described above in the discussion on *habitat disturbance and loss.*

Census data indicate that desert tortoise numbers decline as OHV use increases (Bury *et al.* 1977), and that tortoise sign increases with increased distance from roads (Nicholson 1978). Tortoises often use roads which have depressions as drinking sites. Vehicular activity on unpaved roads following rains may preclude tortoises from drinking water, which may be available for only brief periods. Tortoises that move or occur in the paths of recreational vehicles may be killed or injured (Bury 1978, Bury and Luckenbach 1986, Luckenbach 1975, Nicholson, 1978), or collected as pets.

Noise levels produced by OHVs may alter tortoise behavior (potentially affecting foraging and other activities) or cause hearing loss, but these effects are difficult to assess and are not well documented. Noise from OHVs has the potential to disrupt communication and mask the sounds of approaching predators (Service 1994). Brattstrom and Bondello (1983) stated that the best available scientific data indicate that acoustical impacts of ORVs pose a threat to the well-being of desert vertebrates, and that the problem is not just the abilities of specific sounds to carry into desert regions, but the abilities of specific sound sources to penetrate deep into these regions. Bondello (1976) reported that reptile hearing can be damaged by exposure at close range by impulsive noise from ATVs. More recently, Bowles *et al.* (1997) found that no significant temporary threshold shift, or temporary change in auditory sensitivity, was detected even in the most acoustically sensitive tortoises after a worse case scenario exposure to subsonic aircraft noise. Some tortoises did, however, prove to have relatively sensitive hearing at summer temperatures.

The effects of OHV activity in arid lands continue long after the event if some physical property of the soil is altered. Loosened soils blown off the surface can collect at the bases of shrubs or accumulate in nearby foothills, resulting in small dunes. Finer pulverized soils require lower threshold wind velocities for transportation than coarser pulverized soils having higher fine-clay content. Alluvial fans, bajadas, and desert flats with sandy soils, which have very low moisture content and are devoid of vegetation, are most affected by wind erosion following disturbance by OHVs (Gillette and Adams 1983). Recovery of Mojave desert vegetation and soils may require 30 to 100 years or more following OHV activity (Lathrop 1983). Dust may be deposited on vegetation along the course. Gibson et al. (1998) found that heavy dust does not kill creosotebush; however, net photosynthesis may be reduced and leaf temperature substantially increased. Continued use of existing event courses may preclude natural revegetation of these disturbed areas. Course widening and rut formation are other physical effects of OHV activity.

BLM proposes measures to minimize many of the potential effects described above that may result from recreational activities in the Planning Area. These measures include: (1) Provide a tortoise education program, (2) restrict vehicles to the authorized routes and designated areas; (3) mark the boundaries of the spectator areas, (4) delineate and confine pit areas to previously disturbed areas; (5) close nearby lands and roads on the day of OHV events; (6) provide monitors to enforce stipulations; (7) move tortoises out of harm's way; and (8) impose additional stipulations or modifications through terms and conditions of this biological opinion for a particular event, as appropriate.

Livestock Grazing Effects. Numerous observations and studies have occurred in the Mojave Desert that suggest that livestock grazing and related activities are detrimental to desert tortoise and its habitat. Livestock grazing may result in reduced shrub cover (Webb and Stielstra 1979)

and desirable shrubs (Orodho *et al.* 1990), or replacement of native grasses with shrubs (Bahre 1995). Livestock grazing may result in adverse effects to soils as described previously. Livestock grazing could result in reduced vegetative cover in areas which are currently in late seral stage to the potential natural community, increasing the potential for predation on juvenile desert tortoises and potentially increasing nutritional deficiencies. The vegetation abundance and composition may be altered by livestock grazing which may result in an increased incidence of wild fires (Arndt 1966, Ellison 1960, Gifford and Hawkins 1978, Klemmedson 1956, and Service 1994). The use of non-native vegetation to supplement livestock may introduce species that replace native vegetation important for proper tortoise nutrition (Esque *et al.* 1994). Karl (1981) found that desert tortoise densities were significantly lower in areas of Lincoln and Nye Counties, Nevada, where red brome (*Bromus rubens*), an invasive non-native grass, is abundant.

Like livestock, tortoises prefer some plants over others and demonstrate that by selecting them even when the plant is not abundant. Understanding the composition of the desert tortoise diet is important in determining the overall health of a population. It is important that tortoises vary their diet because few forage species supply a good balance of nutrients. In southern Nevada, Nagy and Medica (1986) found that tortoises preferred forbs in early spring, dried grasses in late spring and summer (after the forbs dried), and forb seedlings and green grass sprouts in autumn. They also reported that tortoises consumed none of the 12 species of perennial shrubs and cacti that occurred in the study area.

In Ivanpah Valley, California, Turner, et al. (1984) found that tortoises consumed grasses, (*Bouteloua spp., Bromus rubens, Hilaria rigida, Schismus barbatus* and *Stipa speciosa*) until mid-May, followed by annuals *(Camissonia sp., Descurainia sp., Lotus sp., Lupinus sp., Malacothrix sp., Mentzelia sp.* and *Nama demissum)* and seeds. In 1981, a dry year, tortoises in Ivanpah Valley consumed cacti much more frequently, particularly after mid-May (Turner *et al.* 1984). In other studies in southern California, Luckenbach (1982) reported that forbs were the most important tortoise foods, followed by grasses, which he suggested were used only to maintain summer activity. Luckenbach (1982) also reported no observations of desert tortoises feeding on perennials and related this avoidance to the high salt content found in perennial vegetation.

Based on field observations during the months of September, October, November, and January, and stomach content analysis, Woodbury and Hardy (1948) noted that tortoise diets on the Beaver Dam Slope in Utah consisted mainly of the grasses red brome and bush muhly (*Muhlenbergia porteri*). It may be that tortoises on the Beaver Dam Slope eat red brome and other exotic grasses when nothing else is available (Coombs 1979). Red brome has been negatively correlated with desert tortoise population density in Nevada (Karl 1980). In September 2000, a tortoise was observed on the Nevada Test Site with red brome seeds impacted in its jaw (Phil Medica, Desert Tortoise Coordinator, Service, pers. comm).

During summer and fall, tortoises (particularly females) have an increased nutritional requirement for protein and calcium. Native perennial grasses may be the main source for meeting these nutritional demands. If overgrazing has significantly reduced perennial grasses, tortoises may fail to meet nutritional demands. When compared to shrubs on a dry weight basis, forbs are nutritionally superior in protein, phosphorus, and digestibility and are lower in fiber and dry matter. Although forbs are higher in protein than grasses, Nagy and Medica (1986) found that while eating forbs in spring, tortoises in southern Nevada did not eat enough food to achieve energy balance. They proposed two explanations: (1) Tortoises ate as much as they could but, due to the high water content, dry matter intake was inadequate; or (2) tortoises did not consume food at their maximum rate, possibly due to potassium levels in the food. Although forbs provide tortoises with abundant water, excess salts (primarily potassium) that are not excreted result in increased osmotic and ionic concentrations in both urine and plasma (Nagy and Medica 1986).

The effects on desert tortoise from dietary overlap and competition between livestock and tortoises, and increased dominance of non-native annual plants are not clear at this time; however; these factors play a substantial role in the nutritional state of desert tortoises, particularly in dry years. Jarchow and May (1989) suggested that conversion from perennial grasses to non-native annuals on the Beaver Dam Slope may be a contributing factor in observed desert tortoise starvation and malnutrition. The use of hay or grains may introduce non-native plant species. Oftedal *et al.* (1993) reported that livestock grazing may reduce the seasonal supplies of important nutrients which may be limiting factors for desert tortoise in Nevada.

Livestock and associated activities may result in direct desert tortoise mortality or injury. Tortoises, tortoise burrows, and perennial vegetation are important for thermal cover and may be trampled by cattle or run over by vehicles associated with the grazing activities. Trash and livestock carcasses may attract tortoise predators if not removed and disposed of properly.

BLM proposes measures to minimize many of the potential effects described above that may result from livestock grazing in the Planning Area. These measures include: (1) Implement tortoise education programs; (2) restrict vehicle use to designated areas; (3) prohibit the use of hay or grains as a feeding supplement; (4) visit each allotment covered under this biological opinion to monitor livestock use; and (5) setting limits on forage utilization. These measures should minimize some effects of grazing that would continue outside recovery areas.

Wild Burro Management Effects. Forbs are consumed by wild burros, livestock, and tortoises. Most impacts to tortoise from wild burros are a result of habitat degradation, which are similar to those effects described above for livestock grazing. Burro removals may result in disturbance of desert tortoise habitat and project vehicles may incidentally harm tortoises.

BLM proposes measures to minimize many of the potential effects described above that may result from wild burro management activities in the Planning Area. These measures include: (1) Allow forage utilization up to 35 percent on key species, (2) conduct visits to HMAs to ensure compliance, (3) locate surface-disturbing activities in previously disturbed areas, (4) restrict vehicles to existing roads and trails, (5) prohibit the use of hay or grains as a feeding supplement, (6) restrict project vehicle speed to 25 mph, and (7) provide tortoise education materials to all contractors.

Indirect Effects

Predators. Many actions proposed by BLM in tortoise habitat potentially provide food in the form of trash and litter, or water, which attract important tortoise predators such as the common raven, kit fox, and coyote (Berry 1985; BLM 1990). Natural predation in undisturbed, healthy ecosystems is generally not an issue of concern. However, predation rates may be altered when natural habitats are disturbed or modified. Common raven populations in some areas of the Mojave Desert have increased 1500 percent from 1968 to 1988 in response to expanding human use of the desert (Boarman 1992). Since ravens were scarce in this area prior to 1940, the current level of raven predation on juvenile desert tortoises is considered to be an unnatural occurrence (BLM 1990). Following disposal by BLM, land may be developed for residential or commercial purposes, thus potentially providing limited resources to tortoise predators allowing them to expand their range and numbers in tortoise habitat. Disposal of land for residential purposes may also result in an increase in domestic predators including free-ranging dogs. Dogs may range several miles into the desert and have been found digging up and killing desert tortoises (Service 1994). Development and implementation of HCPs for lands that are transferred out of Federal ownership should further minimize most of these predator-related effects. Implementation of a litter-control and tortoise-education program by BLM should minimize impacts to tortoise from predators on BLM-administered lands.

Land Disposal Actions. Disposal of BLM-administered land in the Planning Area may result in the loss of up to 10,800 acres of very low- to low-density desert tortoise habitat, none of which occurs within a desert tortoise ACEC or critical habitat. Although this biological opinion evaluates only the effects to the desert tortoise that may result from the transfer of BLM-administered land out of Federal ownership, the direct and indirect effects to listed species that may occur after transfer would be evaluated under section 10(a)(1)(B) of the Act. Similarly, the subsequent loss of tortoises and their habitat following transfer from public administration to private ownership, may be authorized by the Service through an incidental take permit under section 10(a)(1)(B) of the Act, following development of an HCP by the landowner.

The transfer of BLM land out of Federal administration may result in development for commercial purposes, residential housing, local government projects, or other actions. Once lands are transferred out of BLM administration, impacts that result from future non-Federal actions on these lands may be considered as cumulative effects, which are identified in that section of this opinion. BLM's proposal to require land owners that receive BLM-administered land under this consultation, to develop an HCP and acquire an incidental take permit for desert tortoise, as appropriate, should minimize the potential effects to desert tortoise.

CUMULATIVE EFFECTS

Cumulative effects are those effects of future non-Federal (State, local government, or private) activities that are reasonably certain to occur in the project area considered in this biological opinion. Future Federal actions that are unrelated to the proposed action are not considered in this section because they require separate consultation pursuant to section 7 of the Act.

The vast majority of the human population in the Planning Area is concentrated within one square mile (Beatty) and has decreased significantly over the past several years due to the closure of mining facilities in the area. Transient population, in the form of tourism, is on the increase and businesses such as motels, casinos, and service stations are thriving. The proximity of the area to Death Valley National Park and the increased popularity of the ghost town of Rhyolite make Beatty a vacation stopover, but seldom a destination. With tourism, there may be an increase of OHV traffic by people not familiar with the area, or even this country. Their presence could lead to the capture or collection of desert tortoise and the use of vehicles off of existing roads and trails, further impacting the tortoise and its habitat.

Desert tortoise habitat at the interface between developed lands and open desert is most susceptible to negative impacts. There may be an alteration of predation rates beyond what could be considered normal. Public land adjacent to Beatty and outlying residential homes may be affected by indiscriminate use of firearms and OHV use by children as well as adults. Lands conveyed from Federal ownership for community expansion and private economic development could potentially bring about additional direct, indirect, and cumulative effects.

The majority of the lands in the vicinity of the Planning Area are administered by Federal agencies. Therefore, any actions on these lands would be subject to consultation under section 7 of the Act.

CONCLUSION

After reviewing the current status of the desert tortoise, the environmental baseline for the project area, the effects of the proposed action and the cumulative effects, it is the Service's biological opinion that implementation of multiple use activities as proposed in BLM's August 31, 2001, biological evaluation and 1997 approved Tonopah RMP, is not likely to jeopardize the continued existence of the threatened Mojave population of the desert tortoise. Critical habitat for this species has been designated within 14 CHUs in Nevada, California, Arizona, and Utah; however, the proposed action does not affect any of those areas and no destruction or adverse modification of that critical habitat is anticipated.

We have reached this conclusion for the following reasons:

(1) The Planning Area does not include any areas designated for recovery of the desert tortoise;

(2) few desert tortoises are likely to be killed or injured by multiple-use actions approved by BLM which would be minimized by measures proposed by BLM;

(3) no actions will proceed under this biological opinion until BLM submits required information on each project that *may adversely affect* the desert tortoise and a response has been received from the Service in accordance with the Service's protocol for programmatic biological opinions (Attachment A); and

(4) BLM will impose fees for habitat disturbance which will be applied towards recovery tasks identified in the Recovery Plan, thus further minimizing the impacts to the desert tortoise.

INCIDENTAL TAKE STATEMENT

Incidental Take for Programmatic Consultations

Each BLM action that may result in incidental take must have an incidental take statement, whether the action is the adoption of a strategy for developing future projects or the implementation of specific activities under the strategy. The take anticipated as a result of a specific action would be a subset of the programmatic incidental take statement. Though the intent in the appended programmatic approach is for the programmatic incidental take statement to contain all necessary reasonable and prudent measures and associated terms and conditions, due to the lack of available information regarding the specifics of individual projects, it may be necessary to develop project-specific reasonable and prudent measures and terms and conditions to ensure the minimization of the impacts of the incidental take associated with the specifics of each individual project. However, if this is the case, the Service would carefully consider whether the individual proposed project is beyond the scope of the programmatic consultation.

Section 9 of the Act, as amended, prohibits take (harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or attempt to engage in any such conduct) of listed species of fish or wildlife without a special exemption. "Harm" is further defined to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing behavioral patterns such as breeding, feeding, or sheltering (50 CFR § 17.3). "Harass" is defined as actions that create the likelihood of injury to listed species to such an extent as to significantly disrupt normal behavior patterns which include, but are not limited to, breeding, feeding, or sheltering (50 CFR § 17.3). Incidental take is any take of listed animal species that results from, but is not the purpose of, carrying out an otherwise lawful activity conducted by the Federal agency or applicant. Under the terms of sections 7(b)(4) and 7(o)(2) of the Act, taking that is incidental to, and not intended as part of the agency action, is not considered a prohibited taking provided that such taking is in compliance with the terms and conditions of this incidental take statement.

The Service hereby incorporates by reference the minimization measures proposed by BLM from the *Description of the Proposed Action* into this incidental take statement as part of these terms and conditions. Terms and conditions for actions covered under, or appended to, this opinion: (1) Restate measures proposed by BLM or provided below, (2) modify the measures proposed by BLM or provided below, or (3) specify additional measures considered necessary by the Service. Where action-specific terms and conditions (*i.e.*, terms and conditions developed for each action to be appended and covered under this programmatic opinion in the future) vary from or contradict the minimization measures proposed under the *Description of the Proposed Action* or general terms and conditions below, the action-specific terms and conditions shall apply. The

measures described below are general in nature and may or may not apply to future actions proposed for appendage to this programmatic biological opinion. Terms and conditions that are specific to future BLM projects or actions are nondiscretionary and must be implemented by BLM so that they become binding conditions of any grant or permit issued to the applicant, as appropriate, in order for the exemption in section 7(o)(2) to apply.

BLM has a continuing duty to regulate the activity that is covered by this incidental take statement. If BLM (1) fails to require the project proponent to adhere to the action-specific terms and conditions of the incidental take statement through enforceable terms that are added to the permit or grant document, and/or (2) fails to retain oversight to ensure compliance with action-specific terms and conditions, the protective coverage of section 7(o)(2) may lapse.

EXTENT OF TAKE

Based on the analysis of impacts provided above, minimization measures proposed by BLM, and anticipated project duration, the Service anticipates that the following take could occur as a result of the proposed action:

1. An unknown number of desert tortoises may be incidentally taken as a result of rights-of-way grants, R&PP and FLPMA leases, mineral materials management, BLM projects, and recreation activities approved by BLM, on the 3,200 acres of desert tortoise habitat within the Planning Area identified by BLM and existing roads and trails, **during the 10-year period of this biological opinion**. Based on desert tortoise population densities and scope of proposed activities, the Service estimates that 50 or fewer desert tortoises would be incidentally taken as a result of programmatic activities.

2. An unknown number of desert tortoises may be incidentally taken by ongoing management of livestock and wild burros. Currently, livestock grazing is not occurring in the action area; no wild horses occur within desert tortoise habitat and burro numbers are not excessive. Therefore, the Service believes that the number of tortoises incidentally taken by management of these ungulates is low (*i.e.*, less than 5 over the 10-year period of the consultation). Changes in the current conditions would require project-level consultation with the Service.

3. An unknown number of desert tortoise nests and eggs may be destroyed during BLM authorized actions covered under this biological opinion. However, the Service anticipates that the number would be no more than one nest with eggs, **per year**.

4. An unknown number of desert tortoises may be taken in the form of indirect mortality through predation by ravens drawn to trash; however, the Service believes that this number will be low.

EFFECT OF THE TAKE

In the accompanying biological opinion, the Service determined that this level of anticipated take is not likely to result in jeopardy to the species or destruction or modification of critical habitat.

REASONABLE AND PRUDENT MEASURES

The Service believes that the following reasonable and prudent measures are necessary and appropriate to minimize the incidental take of desert tortoise:

1. BLM shall implement measures to minimize the incidental take of desert tortoises and impacts to desert tortoise habitat resulting from surface-disturbing activities, including disturbing activities incidental to non-surface disturbing actions.

2. BLM shall implement measures to minimize the incidental take of desert tortoises and impacts to desert tortoise habitat resulting from OHV and recreational activities.

3. BLM shall implement measures to minimize the incidental take of desert tortoises and impacts to desert tortoise habitat resulting from continued licensing of livestock grazing and management of wild burros.

4. BLM shall implement measures to minimize the incidental take of desert tortoises and impacts to tortoise habitat resulting from operation of project vehicles and equipment.

5. BLM shall implement measures to minimize the incidental take of desert tortoises and impacts to desert tortoises found in harm's way, that must be handled, captured, and moved.

6. BLM shall implement measures to minimize the incidental take of desert tortoises resulting from attraction of potential tortoise predators to project sites approved by BLM.

7. BLM shall implement measures to ensure compliance with the reasonable and prudent measures, terms and conditions, reporting requirements, and reinitiation requirements contained in this biological opinion.

TERMS AND CONDITIONS

In order to be exempt from the prohibitions of section 9 of the Act, BLM must comply with action-specific terms and conditions, which implement the reasonable and prudent measures described above. These terms and conditions are non-discretionary and apply throughout desert tortoise habitat within the Planning Area. The terms and conditions below were developed by the Service to minimize the potential impacts to desert tortoise at the programmatic level and may require modification or additional measures, when specific actions are proposed for appendage to this programmatic biological opinion.

1. To implement Reasonable and Prudent Measure Number 1, BLM shall implement terms and conditions to reduce impacts to desert tortoise and its habitat resulting from surface disturbing activities, including disturbing activities incidental to non-surface disturbing actions, which may include the following:

   a. BLM shall present a tortoise-education program to all personnel working on projects or activities covered under this biological opinion. This program shall be presented by a qualified tortoise biologist for those projects with the greatest potential impacts to desert tortoises. A video or fact sheet, as approved by the Service, may be presented or provided in lieu of a presentation for those projects with low potential impacts.

      The program will include information on the life history of the desert tortoise, legal protection for desert tortoises, penalties for violations of Federal and State laws, general tortoise-activity patterns, reporting requirements, measures to protect tortoises, terms and conditions of this biological opinion, and personal measures employees can take to promote the conservation of desert tortoises. The definition of "take" will also be explained. Specific and detailed instructions will be provided on the proper techniques to capture and move tortoises which appear onsite, in accordance with Service-approved protocol. Currently, the Service-approved protocol is Desert Tortoise Council 1994, revised 1999. Workers will be encouraged to carpool to and from project sites.

   b. Project or activity access will be limited to existing roads and trails unless authorized by BLM and the Service, as appropriate. Upon determination of an impending field development, a transportation plan will be requested to reduce unnecessary access roads. If new access is required, road construction, blading of existing roads or trails, or other surface disturbance associated with BLM-

authorized projects will be confined to the authorized location and not exceed the minimum size required for safe usage.

c. Surface disturbance shall be confined to the minimum amount necessary to perform the authorized activity.

d. Surveys: Due to the low-density tortoise habitat in the Planning Area, the need to conduct tortoise clearance surveys will be determined at the action-specific level of this consultation. If tortoise clearance is not required, applicants or project proponents may voluntarily choose to search for, and remove tortoises from, lands to be disturbed within the project area. However, such applicants/project proponents choosing to perform voluntary search and removal of tortoises shall implement the measures in Term and Condition 5 which provides the proper protocol for capturing, handling, and relocating tortoises.

If tortoise clearance surveys are required, all project areas, including construction sites, access routes, staging areas, and fence lines, will be cleared by a qualified biologist before the start of construction or ground disturbance. The parcel shall be surveyed for desert tortoise using survey techniques which provide 100-percent coverage. During the tortoise active season, the fence line shall be cleared of tortoises no more than 24 hours before initiation of construction. During the tortoise inactive season, the preconstruction clearance shall be within three days before work begins. In non-emergency situations in suitable tortoise habitat, the action area will be surveyed by a qualified tortoise biologist using survey methods to provide 100 percent coverage. During the months of March through October the survey shall be performed no more than three days previous to the start of project activities; during the period of November through February the survey shall be performed no more than 5 days before the start of project activities. Tortoise and tortoise nests found on the site shall be relocated by a qualified tortoise biologist in accordance with Service-approved protocol (Desert Tortoise Council 1994, revised 1999). Injured tortoises shall be taken to a veterinarian for treatment.

e. Projects that do not require a qualified tortoise biologist onsite, an individual trained in the proper technique for handling tortoises, may move a tortoise ONLY if the tortoise is in imminent danger.

f. Tortoise nests found in harms way shall be relocated by a qualified tortoise biologist. Burrows containing tortoises or nests will be excavated by hand, with hand tools, to allow removal of the tortoise or eggs.

g. Fees: Prior to any surface-disturbing activity, the project proponent shall pay a remuneration fee for each acre of surface disturbance. Remuneration fees only apply to future disturbance in low- to moderate-density tortoise habitat. Past disturbance or disturbance on land not considered to be tortoise habitat are not assessed a tortoise remuneration fee. Remuneration fees will be used to fund management actions which are expected to benefit the desert tortoise.

For Projects Other Than Community Sand And Gravel Pits (including mineral material sales): Prior to issuance of the permit, right-of-way grant, lease, etc. (except R&PP leases as specified below), and prior to any surface-disturbing activity associated with the proposed project, the applicant shall pay a fee of $648 per acre (effective March 1, 2003 to March 1, 2004) for each acre of surface disturbance, as indexed for inflation. This fee will be paid directly to the Desert Tortoise Public Lands Conservation Fund Number 730-9999-2315, administered by Clark County or any other administrator approved by BLM or the Service. The administrator serves as the banker of these funds and receives no benefit from administering these funds. The fees are subject to adjustment based on the Consumer Price Index for All Urban Consumers (CPI-U), the most quoted and stable of the consumer price indices. These funds are independent of any other fees collected by the county for desert tortoise conservation planning.

Payment of $648 per acre of future disturbance of land designated as tortoise habit will be required for all projects prior to issuance of the lease, permit, or other BLM authorization, with the exceptions identified below.

- R&PP leases may be issued prior to payment of offsite fees. Payment of fees on R&PP leases will be deferred until immediately prior to surface disturbance. If the R&PP project consists of phased development of the lease area, fees will be paid for each phase immediately prior to surface disturbance of that phase.

- As many mining operations are conducted in phases over a number of years, fees for the acres involved in a phase will be paid prior to the beginning of that phase.

- Other projects, such as parks, that are built in phases will be required to pay the fee for the acres anticipated to be disturbed as a result of each phase before beginning disturbance for that phase.

- Projects impacting a cumulative total of less than 0.25-acres will not be assessed a fee. The 0.25-acres refers to the total project area and does not apply to each phase of a project.

- Mineral material sales and leases will be charged a fee of 25 cents per yard up to the equivalent of $648 per acre of disturbance, or will be assessed $648 per acre for each phase of disturbance, at the discretion of BLM; this rate may be adjusted for inflation.

- Range and wildlife projects will be exempt from offsite fees. These projects may include fences, pipelines, water hauls, and spring developments.

For Community Sand And Gravel Sales: Conservation fees will be assessed on the basis of cubic yards of material removed from the project site. A fee of 25 cents per cubic yard will be applied until such time as the fees collected are equal to $648 per acre for each acre of surface disturbance, as indexed for inflation. The fee shall be paid directly to BLM while purchasing mineral materials at the Tonopah Field Station. The fee shall be deposited directly into the 5320 account administered by BLM. These fees shall be used solely for the purpose of implementing recovery tasks as identified in the Recovery Plan.

Administration: Payment shall be by certified check or money order payable to Clark County (or other administrator named by BLM and the Service), and delivered to:

Clark County
Department of Administrative Services
500 South Grand Central Parkway, Sixth Floor
Las Vegas, Nevada 89155-1712

The payment shall be accompanied by a form completed by the payee. The form will be developed by BLM containing the following information:

- The project name, biological opinion number, BLM case number, and payee's name, address, and phone number; and
- the amount of payment enclosed and the number of the check or money order.

The project proponent or applicant may receive credit for payment of such fees and deduct such costs from desert tortoise impact fees charged by local government entities, if any. In addition, the form will be accompanied by a payment verification and delivered to:

Assistant Field Manager, Tonopah
Bureau of Land Management
Tonopah Field Station
P.O. Box 911
Tonopah, Nevada 89049

The payment verification shall include a cover letter from the payee that identifies the following information:

- The project name, biological opinion number, BLM case number, and payee's name, address, and phone number;
- the amount of payment enclosed and the number of the check or money order; and
- a copy of the receipt from Clark County.

h. **Biologist requirements**: Typically, projects may not require a tortoise biologist onsite during construction; however, BLM and/or the Service may determine that some projects do require a biologist onsite. If not required, tortoises encountered may be moved ONLY if the tortoise is in eminent danger, and is moved by a designated individual, trained in the proper technique for handling tortoises. Any incident of handling a desert tortoise must be reported to BLM and the Service within 30 days after the completion of the project, in accordance with Term and Condition 7.

i. If possible, overnight parking and storage of equipment and materials, including stockpiling, shall be in previously disturbed areas or areas to be disturbed which have been cleared by a tortoise biologist. If not possible, areas for overnight parking and storage of equipment shall be designated by the tortoise biologist which will minimize habitat disturbance.

j. All trenches, pits and other excavations should be checked for tortoises immediately prior to backfilling.

k. If a tortoise is found onsite during project activities which may result in take of the tortoise (e.g., in harm's way), such activities shall cease until the tortoise moves, or is moved out of harm's way, in accordance with Term and Condition 5.

l. Authorized activity (disturbance) acres shall be clearly marked or flagged at the outer boundaries before the onset of construction. All activities shall be confined to designated areas. Blading of vegetation will occur only to the extent necessary as approved by BLM, and shall be limited to areas designated for that purpose by BLM or tortoise biologist.

m. Tortoise-proof barrier fences may be required to prevent tortoises entry onto project sites. During the tortoise active season (March 1 through October 31), the proposed fence line shall be cleared of tortoises no more than 24 hours before initiation of fence construction activity. During the tortoise inactive season (November 1 through February 28/29), the clearance shall be within three days of work.

n. Habitat reclamation will be identified on a project-specific basis. All reclamation activities will use perennial grasses, forbs and shrub species endemic to the area.

2. To implement Reasonable and Prudent Measure Number 2, BLM shall implement terms and conditions to reduce impacts to desert tortoise and its habitat resulting from OHV and recreational activities which may include the following:

a. If a vehicle breaks down during an OHV event, it will be moved to the side of the race course, avoiding damage to vegetation to the extent possible. Participants who stop to rest will pull over onto side roads or areas devoid of perennial vegetation. Riders who retire from the race will either wait along the course for their crew to pick them up, or travel along the course to the pit area. Chase crews will be limited to retrieving vehicles that are broken down along the course. All chase vehicles must have a pit pass.

b. Spectator vehicles will be allowed in designated spectator areas only. Within desert tortoise habitat, spectator areas will be confined to existing disturbance areas.

c. The OHV event promoter will be required to mark the boundaries of the spectator area so that spectators can readily tell where the boundary is located. A monitor, appointed by the permit holder and recognized by BLM, will be placed at each spectator area, to ensure spectators remain within the designated boundary. Anyone found outside of the designated area will be subject to citation by a BLM law enforcement officer.

d. OHV event pit crews will use only authorized pit areas. Pits shall be confined to existing disturbed areas. The pit area boundaries will be clearly marked to delineate the pit from the surrounding desert. On buggy races with pits, pit areas will be marked with a sign stating that a pit pass is required. A maximum of 10 pit passes will be issued to each entrant. Pit passes will have the name and date of the event and will be affixed to the windshield of the vehicle. Vehicles in the pit area without pit passes will be towed at the owner's expense.

e. To the extent possible, the OHV event promoter will clear the event course of all unauthorized vehicles and personnel prior to each race and implement measures to prohibit public access to the course during the event. All major access routes leading into restricted areas will be monitored, or marked closed and bannered off. Personnel shall be stationed at these areas, as appropriate, to enforce access restrictions. Directional signs to spectator and pit areas will be posted at all main access points. Race-in-progress signs will be posted at each location where the race crosses another road. Other disqualification or hazard zones will be monitored periodically during the event.

f. All OHV event-related vehicular activities will be confined to authorized vehicle routes and the course itself, and will not stray into vegetated areas. OHV event participants will be informed that passing on buggy, all-terrain vehicle, and motorcycle courses will be restricted to the disturbed areas of roads, trails, and washes. Road markers, vehicle barricades, or signs will be installed either the day of the race or the day before the race.

g. BLM staff will be present during daylight hours of OHV events to check for compliance with stipulations of the race permit. The importance of staying on the race course will be stressed to all participants by BLM and promoter.

h. A sufficient number of monitors and crowd control officials, as determined by BLM's authorized officer, will be present at the event to enforce compliance with stipulations of the race permit.

i. Permittees shall be responsible for trash and litter clean-up along the course and in spectator and pit areas. Stakes, flagging materials, temporary facilities, non-food type litter, and all other event-related materials shall be removed from the course and pit, parking, and spectator areas within 48 hours following the event; food trash will be removed promptly, but no later than 24 hours following the event. No new disturbances are anticipated as a result of events which are limited to existing roads and disturbances. If new disturbance occurs, the promoter shall rehabilitate disturbed areas within 45 days following the event.

j. In order to reduce casual use of the race course, the promoter will be required to station monitors and/or post signs at road intersections, prohibiting public access, where the general public is likely to access the race course.

k. During race activities, any desert tortoises found on or adjacent to the race course shall be relocated in accordance with Term and Condition 5.

l. Participants in each race who violate any stipulation for that event shall be disqualified from the race. Additionally, failure to comply with the above stipulations by any member of the support team or spectators associated with a particular driver or rider shall result in the disqualification or that driver or rider.

m. All personnel involved in the event shall complete the desert tortoise education program identified in Term and Condition 1.a., above.

n. All non-emergency vehicles shall be restricted to existing roads and trails, as recognized and approved by BLM.

3. To implement Reasonable and Prudent Measure Number 3, BLM shall implement terms and conditions to reduce impacts to desert tortoise and its habitat resulting from future licensing of livestock grazing and management of wild burros which may include the following:

a. All vehicle use in desert tortoise habitat associated with livestock grazing and burro management, with the exception of range improvements, shall be restricted to existing roads, trails, and disturbances, and large sandy washes as a last alternative unless authorized by BLM and Service.

b. The Service will be included as an interested party for all actions concerning grazing (livestock and wild burro) within desert tortoise habitat.

c. Mineral and salt blocks are authorized subject to 43 CFR section 4130 and placed in previously disturbed areas wherever possible, to minimize impacts to desert tortoise and its habitat. In some cases, blocks may be placed in areas that have a net benefit to tortoise by distributing livestock more evenly throughout the allotment, and minimizing concentrations of livestock that result in habitat damage.

d. Only certified weed-free hay and grain will be permitted within desert tortoise habitat.

e. Grazing utilization should not exceed 35 percent on key perennial grasses, forbs and shrubs. When the use levels are reached, the responsible class of animals shall be moved to another location or removed.

f. Desert tortoise habitat will be managed for maximum obtainable canopy cover for native species including perennial grasses, forbs, and shrubs for each ecological site as limited by the potential natural community. Native and introduced annuals should not be included in the canopy cover because introduced annuals are not desirable and both are climatically variable in their potential for cover on a particular year.

g. A qualified BLM specialist shall conduct annual visits to the Bullfrog HMA to ensure compliance with burro numbers. BLM shall schedule an HMA gather when a census determines that the wild burro population is approaching the AML. When that level is reached, a gather will be scheduled for the next fiscal year.

h. Authorized animal levels will be adjusted to reflect significant, unusual climatic conditions which result in a dramatic change in range conditions (*e.g.*, drought or fire), which negatively impact desert tortoise.

i. Trap sites, and temporary corrals and holding facilities for gather operations shall be located in previously disturbed areas or outside desert tortoise habitat, if at all possible.

j. Manage for native perennial grass, native perennial forbs, shrub and tree species diversity specific to respective ecological sites on each allotment within the limitations of the ecological site potential. Manage for the reestablishment by seedling and/or resprouting/regrowth of perennial grass and shrub species endemic to the respective ecological sites.

k. Vegetation on active grazing allotments will be monitored annually by BLM resources specialists, at a minimum, to determine utilization levels. Long-term trend monitoring will be read and evaluated during area assessments. Changes to wild burro levels will occur through the process of setting AMLs. Any such changes will require action-specific consultation under this programmatic biological opinion.

4. To implement Reasonable and Prudent Measure Number 4, BLM shall implement terms and conditions to reduce impacts to desert tortoise and its habitat resulting from operation of project vehicles and equipment which may include the following:

a. Project proponents constructing new road segments may be required by BLM to preclude or restrict public access of the general public.

b. Project vehicles shall not travel at speeds which would endanger tortoises in the action area.

c. The area underneath parked vehicles and equipment shall be inspected for tortoises before moving such materials, vehicles, or equipment. Tortoises may have taken cover underneath the vehicle/equipment during the time it was parked.

d. Access to emergency action sites shall be limited to existing roads and trails, to the greatest extent possible.

e. Portable mud pits shall be used when drilling with fluids unless other options are authorized by BLM.

f. Seismic survey procedures such as vibriosis, drill hole shot, or surface shot will not be completed within 100 yards of known tortoise burrows.

g. All personnel involved in the event shall complete the desert tortoise education program identified in Term and Condition 1.a., above.

h. Participants and sponsors of permitted activities will be encouraged to carpool or take other actions necessary to reduce the number of trips within tortoise habitat.

i. BLM and/or the Service may require surveys or an onsite biologist based upon the predicted size or impact of the project.

j. For projects requiring a tortoise clearance survey, overnight parking and storage of equipment and materials, including stockpiling, shall be in previously disturbed areas or areas to be disturbed which have been cleared by a qualified tortoise biologist.

5. To implement Reasonable and Prudent Measure Number 5, BLM shall implement terms and conditions to reduce impacts to desert tortoises found in harm's way, that must be handled, captured, and moved, which may include the following:

a. BLM must approve the consulting firm/biologist selected by the applicant to implement the "terms and conditions" of the permit. Any biologist and/or firm not previously approved must submit a curriculum vitae and be approved by BLM before being allowed to represent BLM in meeting compliance of the terms and conditions of the "take" provision from the Service's biological opinion.

In accordance with *Procedures for Endangered Species Act Compliance for the Mojave Desert Tortoise* (Service 1992), a qualified desert tortoise biologist should possess a bachelor's degree in biology, ecology, wildlife biology, herpetology, or closely related fields as determined by BLM. The biologist must have demonstrated prior field experience using accepted resource agency techniques to survey for desert tortoises and tortoise sign, which should include a minimum of 60 days field experience. All tortoise biologists shall comply with the Service-approved handling protocol (Desert Tortoise Council 1994, revised 1999) prior to conducting tasks in association with terms and conditions of this biological opinion. In addition, the biologist shall have the ability to recognize tortoise sign and accurately record survey results.

b. Any personnel assisting with implementing protective measures which require an approved biologist onsite must be under the direct field supervision of the approved biologist.

c. Tortoises found in harm's way shall be captured and relocated to undisturbed desert within 1,000 feet by BLM personnel experienced and trained in the handling of tortoises, or BLM contractors experienced and trained in the handling of tortoises according to current approved protocol. This protocol is found in *Guidelines for Handling Desert Tortoises During Construction Projects* (Desert Tortoise Council, 1994, revised 1999). Tortoises shall be deliberately moved solely for the purpose of moving them out of harm's way. Desert tortoises shall not be placed on lands not under the ownership of the Federal Government

without the written permission of the landowner. All personnel involved in tortoise capture shall obtain appropriate permits from the NDOW prior to handling any desert tortoise.

d. Tortoise and tortoise nests found on the site shall be relocated by a qualified tortoise biologist in accordance with Service-approved protocol (Desert Tortoise Council 1994, revised 1999). Tortoises that are moved offsite and released into undisturbed habitat on public land must be placed in the shade of a shrub, in a natural unoccupied burrow similar to the hibernaculum in which it was found, or in an artificially constructed burrow, depending upon the time of year and ambient temperatures. Injured tortoises shall be taken to a veterinarian for treatment.

e. Desert tortoises moved in the winter (i.e., November 1 through February 28/29) or those in hibernation regardless of date must be placed into an adequate burrow; if one is not available, one will be constructed utilizing the protocol for burrow construction in section B.5.f. of the Service-approved guidelines (Desert Tortoise Council 1994, revised 1999).

f. Tortoise burrows should be avoided whenever possible. All workers will also be instructed to check stockpiled material for tortoises and burrows prior to moving the material. Tortoises often construct burrows in stockpiles.

g. BLM must approve the selected consulting firm/biologist to be used by the applicant to implement the terms and conditions of this biological opinion or permit issued by BLM. Any biologist and/or firm not previously approved must submit a curriculum vitae and be approved by BLM before being authorized to represent BLM in meeting compliance with the terms and conditions of this biological opinion. Other personnel may assist with implementing terms and conditions that involve tortoise handling, monitoring, or surveys, only under direct field supervision by the approved qualified biologist.

h. Desert tortoises encountered experiencing heat stress will be placed in a tub, by a qualified tortoise biologist, with 1 inch of water in an environment with a temperature between 76 degrees F and 95 degrees F for several hours, until heat stress symptoms are no longer evident.

i. Tortoises and nests found shall be relocated by a qualified tortoise biologist in accordance with Service-approved protocol (Desert Tortoise Council 1994, revised 1999). Burrows containing tortoises or nests will be excavated by hand,

with hand tools, to allow removal of the tortoise or eggs. Tortoises and burrows will only be relocated to federally managed lands. If the responsible Federal agency is not BLM, verbal permission, followed by written concurrence, shall be obtained before relocating the tortoise or eggs to lands not managed by BLM.

j. Desert tortoises moved during the tortoise inactive season or those in hibernation, regardless of date, must be placed into an adequate burrow; if one is not available, one will be constructed in accordance with Desert Tortoise Council (1994, revised 1996). During mild temperature periods in the spring and early fall, tortoises removed from the site will not necessarily be placed in a burrow.

k. If a tortoise is found onsite during project activities which may result in take of the tortoise (e.g., in harm's way), such activities shall cease until the tortoise moves, or is moved out of harm's way by a qualified tortoise handler.

l. All trenches, pits and other excavations should be checked for tortoises immediately prior to backfilling.

6. To implement Reasonable and Prudent Measure Number 6, BLM shall implement terms and conditions to reduce impacts to desert tortoise and its habitat resulting from potential tortoise predators attracted to project sites approved by BLM which may include the following:

A litter-control program shall be implemented to minimize predation on tortoises by ravens drawn to the project site. This program will include the use of covered, raven-proof trash receptacles, removal of trash from project areas to the trash receptacles following the close of each work day or within 24 hours following authorized events (food related trash), and proper disposal of trash in a designated solid waste disposal facility. Appropriate precautions must be taken to prevent litter from blowing out along the road when trash is removed from the site. The litter-control program should apply to all actions covered under this biological opinion. A litter-control program shall be implemented, by the responsible Federal agency or their contractor, to minimize predation on tortoises by ravens and other predators drawn to the project site.

7. To implement Reasonable and Prudent Measure Number 7, BLM shall ensure compliance with this programmatic biological opinion, though implementation of terms and conditions at the action-level, which may include the following:

a. Specific to livestock grazing and burro management:

- For active grazing allotments: A summary of range monitoring activities (i.e., pattern mapping and utilization) including animal movement activities and details of utilization levels as they relate to allowed utilization levels.

- Any documented increase or decrease in numbers of wild burros in desert tortoise habitat in the Planning Area, and reasons for the change.

b. Specific to BLM actions that result in habitat disturbance and take of desert tortoise:

The project proponent must submit a document to BLM within 30 days of completion of the project showing the number of acres disturbed; remuneration fees paid; and number of tortoises taken, which includes capture and displacement, killed, injured, and harassed by other means, during project activities covered under this biological opinion. The information in this document would not replace the *Reporting Requirements* in this biological opinion.

c. A BLM representative(s) shall be designated who will be responsible for overseeing compliance with the reasonable and prudent measures, terms and conditions, reporting requirements, and reinitiation requirements contained in this biological opinion. The designated representative shall provide coordination among the permittee, project proponent, BLM, and the Service.

Conclusion

The Service believes that no more than 50 desert tortoises may be incidentally taken over the 10-year period of this consultation. In addition, an unknown number of tortoises may be incidentally taken as a direct or indirect result of increased abundance of tortoise predators; and ongoing management of livestock and wild burros. An unknown number of nests/eggs may be incidentally taken as a direct or indirect result of activities covered under this biological opinion. The reasonable and prudent measures, with their implementing terms and conditions, are designed to minimize the impact of incidental take that might otherwise result from the proposed actions. If, during the course of the actions, this level of incidental take is reached and anticipated to be exceeded, such incidental take represents new information requiring reinitiation of consultation and review of the reasonable and prudent measures provided. BLM must immediately provide an explanation of the causes of the taking and review with the Service, the need for possible modifications of the reasonable and prudent measures.

In addition to the anticipated incidental take, a cumulative total of 14,000 acres of desert tortoise habitat may be disturbed or transferred out of Federal administration.

Reporting Requirements

Upon locating a dead or injured endangered or threatened species, initial notification must be made to the Service's Division of Law Enforcement in Las Vegas, Nevada, at (702) 388-6380. Care should be taken in handling sick or injured desert tortoises to ensure effective treatment and care or the handling of dead specimens to preserve biological material in the best possible state for later analysis of cause of death. In conjunction with the care of sick or injured desert tortoises or preservation of biological materials from a dead animal, the finder has the responsibility to carry out instructions provided by the Division of Law Enforcement to ensure that evidence intrinsic to the specimen is not unnecessarily disturbed.

Injured desert tortoises shall be delivered to any qualified veterinarian for appropriate treatment or disposal. Dead desert tortoises suitable for preparation as museum specimens shall be frozen immediately and provided to an institution holding appropriate Federal and State permits per their instructions. Should no institutions want the desert tortoise specimens, or if it is determined that they are too damaged (crushed, spoiled, etc.) for preparation as a museum specimen, then they may be buried away from the project area or cremated, upon authorization by the Division of Law Enforcement. BLM shall bear the cost of any required treatment of injured desert tortoises, euthanasia of sick desert tortoises, or cremation of dead desert tortoises. Should sick or injured desert tortoises be treated by a veterinarian and survive, they may be transferred as directed by the Service.

CONSERVATION RECOMMENDATIONS

Section 7(a)(1) of the Act directs Federal agencies to use their authorities to further the purposes of the Act by carrying out conservation programs for the benefit of endangered and threatened species. Conservation recommendations are discretionary agency activities to minimize or avoid adverse effects of a proposed action on listed species or critical habitat, to help implement recovery plans, or to develop information. The Service hereby makes the following conservation recommendations:

1. BLM should identify and map important areas for the desert tortoise and remove as many human activities from these areas as practical, as identified in the Recovery Plan.

2. During review of proposed projects by BLM wildlife staff, potential impacts to species of concern should be avoided or minimized. This may involve minor modifications to project

design or location, or implementation of an action by BLM or project proponent to benefit the species potentially impacted by the action.

3. BLM range management should maintain a minimum diversity of 15 species of native perennial grass, forb, shrub and tree species, where applicable.

In order for the Service to be kept informed of actions that either minimize or avoid adverse effects or that benefit listed species or their habitats, the Service requests notification of the implementation of any conservation recommendations.

REINITIATION REQUIREMENT

This concludes formal consultation on the actions outlined in your September 6, 2001, request. As required by 50 CFR § 402.16, reinitiation of formal consultation is required where discretionary Federal agency involvement or control over an action has been retained (or is authorized by law) and if: (1) The amount or extent of incidental take is exceeded; (2) new information reveals effects of the agency action that may affect listed species or critical habitat in a manner or to an extent not considered in this opinion; (3) the agency action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in this opinion; or (4) a new species is listed or critical habitat designated that may be affected by the action. In instances where the amount or extent of incidental take is exceeded, any operations causing such take must cease pending reinitiation.

We appreciate the assistance and cooperation of your staff throughout this consultation process. If we can be of any further assistance, please contact Michael Burroughs in our Southern Nevada Field office in Las Vegas, at (702) 515-5230.

Robert D. Williams

Attachment

cc:
Desert Conservation Plan Administrator, Department of Comprehensive Planning, Clark County, Las Vegas, Nevada
Chief, Environmental Services Division, Nevada Department of Transportation, Carson City, Nevada
Administrator, Nevada Division of Wildlife, Reno, Nevada
Supervisory Biologist- Habitat, Nevada Division of Wildlife, Las Vegas, Nevada
Field Manager, Caliente Field Station, Bureau of Land Management, Caliente, Nevada
Field Manager, Las Vegas Field Station, Bureau of Land Management, Las Vegas, Nevada
Deputy State Director, Resources, Land Use and Planning, Bureau of Land Management, Reno, Nevada
District Ranger, U.S. Forest Service, Spring Mountains NRA, Humboldt and Toiyabe National Forests, Las Vegas, Nevada
Superintendent, Death Valley National Park, National Park Service, Death Valley, California
Project Leader, Desert National Wildlife Range Complex, Fish and Wildlife Service, Las Vegas, Nevada
Field Supervisor, Fish and Wildlife Service, Arizona Ecological Services Field Office, Phoenix, Arizona
Field Supervisor, Carlsbad Field Office, Fish and Wildlife Service, Carlsbad, California
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ATTACHMENT A

Draft Programmatic Consultation Guidance (10/18/01)

"Programmatic consultation" has become a generic term encompassing a broad category of Endangered Species Act section 7 consultations that evaluate the potential for Federal agency programs to affect listed and proposed species and designated and proposed critical habitat, hereafter referred to as listed species and designated critical habitat. Such programs typically guide implementation of future agency actions by establishing standards, guidelines, or governing criteria to which future actions must adhere. Examples include Forest Service Land and Resource Management Plans and Bureau of Land Management Resource Management Plans. At times the term programmatic consultation has been used to refer to consultations on a large group of similar actions (e.g., a national forest's timber harvest program for a particular year) as well as to refer to consultations covering different types of actions proposed within a large geographic area such as a watershed. Such consultations can provide the benefit of streamlining the consultation process while leading to a more landscape based approach to consultation that can minimize the potential "piecemeal" effects that can occur when evaluating individual projects out of the context of the complete agency program.

As background, there are several points about programmatic consultation processes that need to be established to ensure a common understanding:

(1) Programmatic consultations evaluate the potential for Federal agency programs to affect listed species and designated critical habitat. These programs guide implementation of the agency's future actions by establishing standards, guidelines, or governing criteria to which future actions must adhere.

(2) A variety of court decisions have made it clear that Federal agencies must consult on such programs, plans, or strategies (see Pacific Rivers Council v. Thomas, 30 F.3d 1050, 1052 - 1053 (9th Cir. 1994); Lane County Audubon Society v. Jamison, 958 F.2d 290, 293 (9th Cir. 1992); Silver v. Babbitt, 924 F.Supp. 976 (D. Ariz. 1995); Silver v. Thomas, 924 F.Supp. 976 (D. Ariz. 1995).[1]

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[1]It has been asserted by some that the case Ohio Forestry Association v. Sierra Club can be used to support the proposition that the Forest Service does not have to consult on Land and Resource Management Plans. This is incorrect and neither factually nor legally supportable. In Ohio Forestry, the Supreme Court decided whether a forest plan was judicially ripe for review. Consultation requirements under the ESA were neither raised nor discussed.

(3) In cases where a Federal agency adopts or approves a management plan or strategy that will be used to guide the development and implementation of future projects, there are typically at least two "tiers" of Federal agency action; the first tier action of adopting the management plan or strategy and second tier actions involving implementing individual projects, such as a timber sale or the issuance of an oil and gas lease, under the management plan or strategy. The courts have ruled that the decision to adopt plans (or strategies) that guide the implementation of future individual actions, as well as each future individual action itself, must complete the requirements of section 7 consultation (see Lane County Audubon v. Jamison, at 293; Pacific Coast Federation of Fishermen's Association v. National Marine Fisheries Service; Pacific Coast Federation of Fishermen's Association v. National Marine Fisheries Service, 71 F.Supp. 2d 1063 (W.D. Wa. 1999); Pacific Coast Federation of Fishermen's Association v. National Marine Fisheries Service, No. 99-36027 (9th Cir. 2001)).

(4) Each action that may directly or indirectly affect listed species or designated critical habitat (i.e., either adoption of the plan or implementation of any specific project under that plan) must have the appropriate Endangered Species Act effects analysis and associated documentation. In other words, any action that is determined "may affect, but is not likely to adversely affect" a listed species or designated critical habitat must have a written concurrence from the Service, while any action that is determined to be "likely to adversely affect" a listed species or designated critical habitat must have a **complete** biological opinion (including an incidental take statement, where appropriate[2])(Silver v. Babbitt, Silver v. Thomas, Conner v. Burford, 848 F.2d 1441 (9th Cir. 1988), Conner v. Burford, 605 F.Supp. 107 (D.Mont.1985)).

(5) When developing an incidental take statement that includes future actions for which insufficient information is available to make accurate determinations (e.g., when consulting at the plan level and when the specific future activities and locations are not identified), in the effects analysis the Service must provide the benefit of the doubt to the species and develop reasonable projections indicating potential conflicts between activities that can occur under the agency's program and the protection of listed species. From this, the Service must estimate the amount of take that is likely to occur. Note that this estimated level of incidental take should correspond to the maximum level of impacts that may be caused by the action (see Silver v. Babbitt, Silver v. Thomas, Conner v. Burford, 848 F.2d 1441).

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[2]This concept is further discussed in the "Incidental Take Statement for Programmatic Consultations" section below.

(6) The Service must ensure that the environmental baseline is appropriately tracked during implementation of programmatic consultations. This is described in greater detail below.

Given these factors, here are three appropriate procedures that may be used to carry out programmatic consultations.

I. Batched Programmatic Consultation Approach:

Though not the "classic" form of programmatic consultation, the "batched" approach is widely used throughout the different regions of the country. Under this programmatic consultation approach, the action agency groups, or batches, a series of proposed projects into one proposed action and the Service produces a single biological opinion, or in cases where all proposed projects are not likely to adversely affect listed species or designated critical habitat, a single concurrence letter, to fulfill the action agency's consultation requirements. In effect, several individual consultations are combined into one document. The design of each project is sufficiently developed to accurately assess its potential effects and anticipated take, if any. Thus, effects of each project are evaluated both individually and cumulatively within one document. This approach, while the most legally protective, is not always practical as it requires the action agency to have its specific future actions sufficiently developed to accurately evaluate their impacts.

Action agencies often desire to consult on the effects of implementing a program prior to having sufficiently developed specific projects. For example, an action agency may attempt to consult on the criteria that will be used to develop their future actions. In these cases, one of the other programmatic consultation approaches will be more appropriate.

II. Tiered and Appended Programmatic Consultation Approaches:

When there is insufficient information regarding individual future actions to complete a batched programmatic consultation, we suggest one of the following approaches. Each involves the initial development of a programmatic biological opinion that analyzes the potential effects of implementing the Federal agency's program, and then development of appropriate project-specific documentation that addresses the effects of individual projects that are proposed under the agency's program. In the case of the tiered programmatic approach, the Service completes a "project" biological opinion that tiers to the programmatic opinion. In the case of the appended programmatic approach, the Service produces project-specific documentation that is physically appended to the programmatic biological opinion. Following are procedures for implementing these approaches.

Programmatic Biological Opinions

Under both the tiered and the appended approaches, if it is determined that the proposed program may produce future actions that may adversely affect listed species or designated critical habitat, the Service first produces a programmatic biological opinion that contains all of the elements found in a standard biological opinion and that specifically:

1. Describes the proposed program and the types of future actions that may result. The level of specificity for this portion of the document will vary depending on the level of detail provided by the action agency.

2. Evaluates the manner in which listed species and designated critical habitat may be affected by projects implemented in accordance with the standards or requirements of the action agency's program. This evaluation must in some way specify limits on the impacts that are anticipated through implementation of the Federal agency's program. These limits are derived from the standards of the Federal agency's program and at times may be achieved through jointly limiting the period of time that the programmatic consultation is in effect. For example, after 5 years of implementation, there may be a requirement that the programmatic consultation be reinitiated to evaluate additional anticipated impacts. During the Service's analysis, all potential effects from future actions that meet the requirements of the action agency's program must be evaluated and a "conservative" effects analysis must be conducted; that is, the benefit of the doubt must be provided to the species and any effects that are likely to result from future actions must be analyzed. At times this may result in an assessment of effects that the action agency believes will not occur because they will not implement actions in a manner that result in such effects. For this reason it is essential that the action agency and Service work together in pre-consultation to ensure that the action agency's program contains standards that will ensure that such effects cannot occur; if it is possible for an action to meet the standards of the program and result in such effects, these potential effects must be analyzed. Ultimately, the effects analysis must show that when the program standards are applied to each project, the net additive effect of <u>all</u> projects will not result in jeopardy or adverse modification.

3. Identifies procedures for completing consultation on future actions proposed under the program.

4. Identifies procedures for monitoring the implementation of future projects and associated impacts.

5. Provides an incidental take statement that is general in nature and that exempts incidental take associated with adoption of the program.

Note that if it is determined that the action agency's program will only produce individual projects that are not likely to adversely affect listed species and designated critical habitat, then the programmatic level consultation requirements may be fulfilled by a programmatic concurrence document. However, if the subject program may produce even one project that is likely to result in adverse effects, then the programmatic level consultation requirements must be fulfilled with a complete biological opinion. As identified above, in the case of a programmatic biological opinion, the document must contain an incidental take statement that is general in nature and that exempts incidental take associated with adoption of the program. For additional information regarding these incidental take statements, see the "Incidental Take Statements for Programmatic Consultations" section below.

Project-level Consultation under the Tiered Programmatic Consultation Approach

Tiered programmatic consultations follow what most consider to be the "classic" programmatic consultation approach. Under the tiered programmatic consultation process, the project-level consultation requirements are completed with a project-level biological opinion as described below.

As individual projects (or batches of projects) are proposed under the program, the action agency provides project-specific information that describes each proposed action and the specific areas to be affected, identifies the species and critical habitat that may be affected, describes the manner in which the proposed action may affect listed species and designated critical habitat and the anticipated effects, specifies, if appropriate, that the "anticipated effects from the proposed project are consistent with those anticipated in the programmatic biological opinion," and describes additional effects, if any, not considered in the programmatic consultation.[3]

The Service reviews the information and effects analysis provided by the action agency for each proposed project and this project-specific review is appropriately documented. If it is determined that an individual proposed project is not likely to adversely affect listed species or designated critical habitat, the Service may complete its documentation with a standard concurrence letter that refers to the programmatic document (i.e., it "tiers" to it), and specifies that the Service concurs that the proposed project is not likely to adversely affect listed species or designated critical habitat. It should be noted that in cases where the Service concurs that a "not likely to adversely affect" determination is appropriate, a standard "stand-alone" concurrence letter (i.e.,

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[3]For a discussion of the information to provide regarding projects that are likely to adversely affect listed species or designated critical habitat, see 50 CFR 402.14(c). It may be appropriate for the action agency to reference, or tier to, the informational document(s) provided for the upper tier consultation.

one that does not "tier" to another document) may be used. However, tiering to a programmatic document may strengthen the Federal Government's administrative record.

If it is determined that the proposed project is likely to adversely affect listed species or designated critical habitat, even if the effects were considered in the programmatic biological opinion, the Service completes a project-level biological opinion with a project-specific incidental take statement.[4] The project-level biological opinion document, while meeting the basic requirements of biological opinions as specified at 50 CFR 402.14(h), generally requires less effort to complete because it references back, or tiers, to the programmatic opinion. This results in significant portions of the programmatic opinion being incorporated by reference. Though there is no standard, documentation for project-level biological opinions has generally been completed in approximately five pages. Project-level biological opinions should include:

1. An introductory paragraph that explains the fact that a programmatic consultation was completed and how it relates to the project-level consultation.

2. A summary of the information on which the opinion is based. This will generally include incorporation by reference of the documents that were used to complete programmatic consultation as well as any other documents or information used to determine the effects of the proposed project, incorporation by reference of the Species Account section from the programmatic biological opinion, a summary description of the proposed action, and an updated description of the environmental baseline incorporating effects that have occurred within the proposed action area since the last environmental baseline update. These effects include both those from other actions implemented under the action agency's program as well as actions unrelated to the program.

3. A short project summary. For example, "40 acres of suitable foraging habitat will be harvested from the panther watershed (township and range) of the Sadie ranger district using shelter wood harvest techniques that will leave 30 sq. ft. of basal area per acre."

4. A detailed discussion of the effects of the proposed action on listed species and critical habitat. This will entail a summary of the effects of the proposed action and incorporation by reference of the pertinent portions of the effects analysis from the programmatic biological opinion. For example, "the proposed timber harvest is anticipated to result in take of two individuals through disruption of foraging activities. [Provide a discussion of the specifics of the individuals to be impacted (e.g., past reproductive success if known, the

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[4]Note that it is not appropriate to provide a concurrence letter stating that the adverse effects of the proposed tier II action were considered within the tier I consultation; a biological opinion is required for each action that is likely to result in adverse effects to listed species or designated critical habitat.

role these individuals play in the species' conservation, etc.).] For a complete description of the manner in which such disruptions of foraging activities impact this species, see the Timber Harvest subsection of the Effects section on page 7 of the September 27, 2000, programmatic biological opinion." Generally this section should specify what the proposed action will do to both the landscape and individuals of the species within the action area, but it can refer back to the programmatic biological opinion's discussion of these types of impacts and present any additional information on how these impacts will affect species and habitat within this specific action area and how these specific effects will affect the species' conservation. In general, the documentation presented in this step must be sufficient to show that the specific effects of the individual proposed action under review have been assessed.

5. A statement regarding the consistency (or inconsistency) of the effects of the proposed project with the effects analyzed in the programmatic biological opinion.

6. The Service's opinion on whether the action is likely to jeopardize the continued existence of a listed species or result in the destruction or adverse modification of critical habitat. Note that it may be necessary to revisit the programmatic biological opinion if an individual project generated by the action agency's program results in a jeopardy or adverse modification determination.

7. A project-specific incidental take statement with appropriate reasonable and prudent measures and associated terms and conditions that exempts the take associated with implementation of the specific action (for additional information on this subject, see the "Incidental Take Statements for Programmatic Consultations" section below).

8. Any procedures needed to monitor the impacts of the proposed action that were not identified in the programmatic biological opinion. At times not all of the monitoring procedures identified in the programmatic biological opinion may be appropriate for every proposed action. In these cases, the project-level biological opinion should specify which of the procedures is appropriate for this project.

9. A statement regarding the specific project's impacts to the environmental baseline (including a restatement of the amount of take that is anticipated) and a tallying of the overall impacts to the environmental baseline from projects implemented under the programmatic consultation to date and, if appropriate, a statement that this level of additive effects will not jeopardize the continued existence of a listed species or adversely modify designated critical habitat.

As specified above, the programmatic consultation should in some way specify the limits of the impacts that are anticipated through implementation of the Federal agency's program. Then during

implementation of the project-specific consultation, anticipated impacts to the environmental baseline should be tracked in a distinct section of the biological opinion or project review documentation. This section should be included after the incidental take statement, if any.

Project-level Consultation under the Appended Programmatic Consultation Approach

Under the appended programmatic consultation approach, as individual projects (or batches of projects) are proposed, the action agency again provides project-specific information that: (1) describes each proposed action and the specific areas to be affected; (2) identifies the species and critical habitat that may be affected; (3) describes the manner in which the proposed action may affect listed species and designated critical habitat; (4) describes the anticipated effects; (5) specifies, if appropriate, that the "anticipated effects from the proposed project are consistent with those anticipated in the programmatic biological opinion"; and, (6) describes any additional effects, if any, not considered in the programmatic consultation.[5]

The Service reviews the information and effects analysis provided for each proposed project and this project-specific review is documented in accordance with the guidance provided below. To initiate the project-specific review, the action agency's project information and effects analysis should be accompanied by a cover letter that specifies that the action agency has determined that the proposed project is consistent with the programmatic biological opinion and reasonable and prudent measures and associated terms and conditions, if any, and requests that the proposed project be appended to the programmatic biological opinion to fulfill the agency's consultation requirements.

In the case of projects that the Service concurs are "not likely to adversely affect" listed species or designated critical habitat, the Service may complete its documentation with a standard concurrence letter that refers to the programmatic consultation document and specifies that the Service concurs that the proposed project is not likely to adversely affect listed species or designated critical habitat. This letter may either be delivered to the action agency as a stand-alone document, or it may be appended to the programmatic consultation as described below. Again, attaching this concurrence to a programmatic document may strengthen the Federal Government's administrative record.

If, after review, it is determined that an individual proposed project is "likely to adversely affect" listed species or designated critical habitat, rather than produce a project biological opinion as is

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[5]For a discussion of the information to provide regarding projects that are likely to adversely affect listed species or designated critical habitat, see 50 CFR 402.14(c). It may be appropriate for the action agency to reference, or tier to, the informational document(s) provided for the upper tier consultation.

done in the tiered programmatic consultation approach, the Service provides a letter to the action agency that contains:

(1) A summary of any information not identified in the programmatic consultation document used to evaluate the effects of the proposed action;

(2) A short project summary. For example, "40 acres of suitable foraging habitat will be harvested from the panther watershed (township and range) of the Sadie ranger district using shelter wood harvest techniques that will leave 30 sq. ft. of basal area per acre.";

(3) A detailed discussion of the effects of the proposed action on listed species and critical habitat. This will entail a summary of the effects of the proposed action and incorporation by reference of the pertinent portions of the effects analysis from the programmatic biological opinion. For example, "the proposed timber harvest is anticipated to result in take of two individuals through disruption of foraging activities. [Provide a discussion of the specifics of the individuals to be impacted (e.g., past reproductive success if known, the role these individuals play in the species' conservation, etc.).] For a complete description of the manner in which such disruptions of foraging activities impact this species, see the Timber Harvest subsection of the Effects section on page 7 of the September 27, 2000, programmatic biological opinion." Generally this section should specify what the proposed action will do to both the landscape and individuals of the species within the action area, but it can refer back to the programmatic biological opinion's discussion of these types of impacts and present any additional information on how these impacts will affect species and habitat within this specific action area and how these specific effects will affect the species' conservation. In general, the documentation presented in this step must be sufficient to show that the specific effects of the individual proposed action under review have been assessed;

(4) A statement regarding the specific project's impacts to the environmental baseline (including a restatement of the amount of take that is anticipated) and a tallying of the overall impacts to the environmental baseline from projects implemented under the programmatic consultation to date;

(5) Any additional project-specific RPMs needed to ensure the minimization of the impacts of the take that will result from the proposed project; and,

(6) Language that appends the project to the programmatic consultation and associated incidental take statement, if appropriate.

Again, though there is no standard, project-specific documentation for appended biological opinions generally has been completed in approximately two pages. This documentation is then

physically attached to the programmatic biological opinion in an appendix. Therefore, similar to the situation with batch programmatic consultations, the programmatic biological opinion, together with the appended documentation, fulfills the consultation requirements for implementation of both program-level and project-level actions.

III. Incidental Take Statements for Programmatic Consultations

As stated above, each action that may result in incidental take must have an incidental take statement, whether the action is the adoption of a strategy for developing future projects or the implementation of specific activities under the strategy. It is important to recognize that with programmatic consultation, while the take associated with the implementation of individual proposed actions is encompassed by the take associated with the adoption of a plan, each specific project is an individual action and, therefore, must receive its own individual incidental take exemption. To better understand the rationale behind this, it may be helpful to consider a situation where an action agency proposes a project anticipated to take a listed individual. If the agency finds after project implementation that the listed individual is still present, and it proposes a new action that is anticipated to result in take of that individual, it must receive a new incidental take statement that exempts the take anticipated from the new action; the previous incidental take statement does not exempt the take associated with the new action. This is particularly important because the RPMs contained in the initial incidental take statement may actually reduce the impacts of the incidental take to the point that death of the individual does not occur.

With batched programmatic consultations there is usually only one biological opinion and one incidental take statement since the specific projects to be covered are identified at the time of consultation and combined into a single document. With tiered or appended programmatic consultations, this issue can be more complicated because the specific actions that will be implemented under the action agency's program and their locations may not be identified at the time of the programmatic consultation. As discussed above, this results in the need to develop projections of the anticipated effects and level of take that may be expected given the standards, requirements, or criteria established by the action agency's program. Such projections are developed in the same manner as is done in non-programmatic biological opinions when an action agency does not provide sufficient information to accurately evaluate the effects of a proposed action. That is, providing the benefit of the doubt to the species, the Service must carefully examine the standards, requirements, or criteria established by the proposed action and evaluate the worst (from the species standpoint) potential effects that can occur under the agency's proposed program. It is important that the analysis be completed in this manner because regardless of whether the action agency intends to implement its future actions in this way, the biological opinion and associated incidental take statement, if any, essentially authorizes the implementation of future actions in this way. For this reason it is often very important for action agencies to place sufficiently narrow side-boards on their potential actions so as to ensure that they meet their responsibilities under section 7(a)(2); that is, that they can ensure that jeopardy and

adverse modification will be avoided. If the anticipated additive level of take is such that the conservation status of the species will be eroded, a jeopardy determination is appropriate and the take is not "incidental."

Programmatic Incidental Take Statements (Both Tiered and Appended Approaches)

Incidental take statements for programmatic biological opinions exempt take associated with adoption of the entire "program" that is the subject of consultation. Based on the effects analysis, the programmatic incidental take statement should in some way specify the maximum amount of incidental take that is anticipated through implementation of the action agency's program. Because at this point in the consultation process it is likely that individual projects will not yet be developed, these incidental take statements are typically general in nature encompassing impacts from potential projects that may be implemented within the program's standards, requirements, or criteria. These incidental take statements must contain RPMs, if any, and associated T&Cs that will minimize the impacts of the take that may occur as a result of the action of implementing the agency's plan. Because such plans are typically general in nature, the associated RPMs and T&Cs also are likely to be general in nature. They will pertain to requirements that can be implemented on a broad scale (i.e., the plan-level scale) and are likely to involve adjustments or additions to the design criteria.

Though the intent in the tiered and appended programmatic approaches is for the programmatic incidental take statement to contain all necessary RPMs and associated T&Cs, due to the lack of available information regarding the specifics of individual projects during completion of programmatic biological opinions, in some cases it may be necessary to develop project-specific RPMs and T&Cs to ensure the minimization of the impacts of the incidental take associated with the specifics of each individual project. However, if this is the case, the Service should carefully consider whether the individual proposed project is beyond the scope of the programmatic consultation. While it may be appropriate to make minor changes to proposed projects due to local variations that result in differing opportunities to minimize the anticipated incidental take, it is not appropriate to use such procedures to compensate for impacts that are not anticipated or analyzed in the upper tier consultation. This must be examined on a case by case basis with the ultimate decision being made by the Service in consultation with the action agency.

The programmatic incidental take statement should include an RPM requiring the action agency to ensure that the impacts of each individual proposed project are appropriately minimized. The associated T&C(s) to implement this RPM should further require the action agency to submit each proposed project to the Service for review to determine if the existing RPMs and associated T&Cs will appropriately minimize the impacts of the specific incidental take associated with each distinct action. Note, this also could be accomplished by the action agency incorporating these procedures into the project design. If such incorporation is used, then the programmatic incidental take statement should simply reiterate these procedures prior to the RPMs.

With the **tiered** programmatic consultation approach minimization of the impacts of take anticipated with each individual proposed project is ensured through the development of a project-specific incidental take statement that exempts only the take associated with the specific project under review. With the **appended** approach, this is ensured through the development of project-specific RPMs and associated T&Cs that are appended to the programmatic incidental take statement, which covers each of the individual projects implemented under the action agency's program. These RPMs and associated T&Cs should state that for the subject project, certain additional identified T&Cs must be implemented in addition to those contained in the programmatic biological opinion. These RPMs and T&Cs should be presented in a format similar to those contained in the incidental take statement of the programmatic biological opinion so they can be clearly identified. Note that at times no additional RPMs will be needed. In these cases, the Service's project-specific documentation should state that no RPMs and T&Cs are necessary beyond those contained in the programmatic incidental take statement. At other times it may be determined that one or more of the RPMs and associated T&Cs contained in the programmatic incidental take statement are not needed to minimize the impacts of the incidental take anticipated from the implementation of a proposed project. If this is likely to be the case, then the incidental take statement in the programmatic biological opinion should state that to be exempt from the section 9 take prohibitions all of the nondiscretionary RPMs and associated T&Cs must be implemented unless otherwise specified by the Service in the project specific documentation contained in the appropriate appendix of the programmatic consultation. Then the project specific documentation should clearly specify the RPMs and associated T&Cs that are not required and provide justification for this determination.

With both the tiered and appended programmatic consultation approaches, the project specific documentation should specify that the take anticipated from implementation of a specific project is a subset of that anticipated in the programmatic incidental take statement. For example, "Implementation of the proposed project is anticipated to result in the take of all individuals associated with the harvest of 40 of the 500 acres anticipated to be harvested under the [action agency's] forest management program that was analyzed in the [date] programmatic consultation on the [action agency's] adoption of the subject program." With either the tiered or appended programmatic consultation process, the cumulative amount of take exempted for individual projects cannot exceed that which was exempted under the upper tier incidental take statement without reinitiating consultation on the upper tier biological opinion.

Conclusion

This guidance document contains appropriate methods for completing programmatic consultation. Each approach may not be appropriate for every situation. The appropriate approach will depend on the specifics of each situation (e.g., the level of project specific information available at the time of consultation, workload and staffing issues, etc.). The Service should consider these factors along with the desires of the action agency when determining the appropriate approach for each individual situation.

SECTION 7 FEE PAYMENT FORM

Entire form is to be completed by Federal agency and project proponent

Biological Opinion File Number: 1-5-01-F-570

Species: Desert tortoise (*Gopherus agassizii*)

Location of Fish and Wildlife Service Office that Issued the Opinion: Reno, Nevada

Project:

_____

Amount of Payment Received:

_____

Total Payment Required:

_____

Date of Receipt:

_____

Check or Money Order Number:

_____

Number of Acres to be Disturbed:

_____

Project Proponent:

_____

Address:_____

_____

Telephone Number: _____

Authorizing Agency: Bureau of Land Management

Address: 1553 South Main Street
P.O. Box 911
Tonopah, NV 89049

Case Number (if Bureau of Land Management):_____

Project Reviewed By: _____

Wildlife Staff

Make checks payable to: Clark County Treasurer

Deliver check to: Clark County Habitat Conservation
Department of Comprehensive Planning
Clark County Government Center, Third Floor
500 South Grand Central Parkway
Las Vegas, Nevada 89155
(702) 455-3530

If you have questions call the Las Vegas Office of the U.S. Fish and Wildlife at (702) 515-5230.