



UNITED STATES
DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE

ECOLOGICAL SERVICES

3616 W. Thomas, Suite 6
Phoenix, Arizona 85019

2-21-90-F-082

February 23, 1990

MEMORANDUM

TO: District Manager, Arizona Strip District, Bureau of Land
Management, St. George, Utah

FROM: Field Supervisor

SUBJECT: Biological Opinion for the Mesquite, Nevada Airport

This Biological Opinion responds to your request for formal consultation with the Fish and Wildlife Service (FWS) pursuant to Section 7 of the Endangered Species Act of 1973, as amended (Act). Your request was dated February 14, 1990 and received by us on February 15, 1990. At issue are the impacts that the construction and operation of the Mesquite, Nevada Airport may have on the desert tortoise (Gopherus [= Xerobates] agassizii), a federally listed endangered species.

Biological Opinion

It is the opinion of the FWS that the proposed project is not likely to jeopardize the continued existence of the desert tortoise.

Project Description

In July, 1987, Wadell Engineering Corporation released an environmental assessment (NV-056-8-14) analyzing the leasing of lands within the Stateline Resource Area to the City of Mesquite, Nevada, for the purpose of constructing an airport. The project would consist of site preparation and earthwork for airfield, terminal, and access areas, and drainage and utility systems; construction of a 5100-foot by 75-foot runway with 200-foot overruns at each end, associated taxiways, and public apron area; construction of an airport access road; construction of hangars and terminal buildings; and installation of navigational aids, runway lighting, airport fencing, and landscaping. Airport construction would be funded through the Federal Aviation Administration.

On May 16, 1989, the Bureau of Land Management (BLM) leased 516 acres to the City of Mesquite for the purposes of constructing an airport (Lease N-43266) on T. 13 S., R. 71 E., Section 8, lots 6-21, SW1/4NW1/4, W1/2SW1/4, and Section 4, lots 5 and 12, SE1/4NE1/4, E1/2SE1/4, Mt. Diablo Meridian, Nevada. No mention was made of lands in Arizona. Excavation work on the airport began in July 1989.

On November 15, 1989, the Arizona Strip District discovered that construction of a portion of the airport was occurring on public lands in Arizona without a use permit or lease. BLM instructed the City of Mesquite to halt activities in Arizona on November 16, 1989.

On November 17, 1989, the City of Mesquite applied for a temporary Use Permit for the area in Arizona. On December 4, 1989, the Arizona Strip District Office received an application for an airport lease from the City of Mesquite. The granting of a Temporary Use Permit (EA #AZ-010-90-006) and airport lease constitute a Federal action requiring compliance with the Endangered Species Act.

BLM proposes to allow the City of Mesquite an airport lease for six acres in Arizona. This area would serve as an aircraft approach clear zone and contain a navigational aid site. A road from the airstrip to the navigational aid site would also be necessary. Work is expected to begin in March 1990 and continue into May 1990. The site in Arizona is about two miles from Mesquite, Nevada, two miles from Interstate Highway 15, and immediately adjacent to the Nevada border in T. 40 No., R 16 W., Section 29.

Direct impacts from construction have already occurred to low density tortoise habitat in Nevada and Arizona. Long-term loss of habitat on approximately 550 acres in Nevada and 6 acres in Arizona occurred during 1989 when bulldozers, graders, and earth-movers prepared the site for construction of an airport runway, clear zone, hangars, parking zone, and terminal. The work in Arizona involved excavating a hill at the end of the runway to lower the area to the same height as the runway in Nevada. Additional short-term loss of tortoise habitat occurred when a pipeline and road were constructed across approximately 0.3 mile of public land to allow access to the east end of the runway excavation area.

During a November 28, 1989, meeting between the FWS (Reno and Phoenix Field Offices) and BLM (Las Vegas and Arizona Strip District Offices), and the City of Mesquite, it was determined that excavation activities could continue provided that no new surface disturbance was allowed in Arizona or Nevada. The following day, activity resumed on the site and continued until excavation work was completed. The BLM agreed to consult on the project and the City of Mesquite agreed not to conduct any further construction activities until after Section 7 consultation was complete. These activities would include paving the runway and parking areas, construction of a terminal and hangars, lights, navigational aids, and fences.

Effects of the Project on the Listed Species

Species Account

On August 4, 1989, the FWS determined the Mojave population of the desert tortoise to be endangered under an emergency rule. The emergency rule will expire 240 days following that date. The FWS has since developed a proposed rule that would provide long-term endangered status, which was published in the Federal Register on October 13, 1989. After review of public comments, the FWS will make a final determination on the proposal to list the Mojave population of the tortoise.

The desert tortoise is a large, herbivorous reptile found in portions of the California, Arizona, Nevada, and Utah deserts. It also occurs in Sonora and Sinaloa, Mexico. Generally, the species is active during the spring and early summer when annual plants are most common. Additional activity occurs during warmer autumn months and occasionally after summer rain storms. Tortoises spend the remainder of the year in burrows, escaping the extreme weather conditions of the desert.

On July 24, 1987, four desert tortoise relative density transects were run within the proposed Mesquite Land Sale in T. 13 S., R. 71 E., Sections 7, 8, 9, and parts of Sections 13, 14, and 24. The tortoise transects were 1.5 mile long and 16 meters wide and run as an equilateral triangle of 0.5 miles on each leg. Results of the survey were three tortoise shell remain sites, one eggshell remain site, and three inactive tortoise burrows. Biologists estimated the tortoise population in this area at less than 50 per square mile.

On November 16 and 17, 1989, areas along the pipeline, access road, and in and around the excavation were searched for signs of desert tortoise. Tortoise shell bone fragments, which appeared to be over four years since death, were found along the pipeline access road. No tortoise sign (live tortoise, shells, scats, or coversites) was observed on or within 100 meters of the excavation site.

Based upon data from the two surveys, this area appears to have low tortoise densities due to poor habitat conditions. The project area has been designated as Category 2 desert tortoise habitat following the BLM's Rangeland Plan directives. The area was previously used as a dump for the City of Mesquite. Part of the project area is within one mile of Interstate Highway 15. There has been significant human use of the area for livestock grazing, dumping, off-road vehicle free play, recreational firearm use, and temporary habitation. The natural character of the area no longer exists. Due to the proximity to Mesquite, Highway 91, and Interstate 15, it is likely that tortoises have been collected for pets and captive tortoises have been released in this area.

The vegetation in the area is typical for this region of the Mohave Desert, dominated by creosote (Larrea tridentata), Mormon tea (Ephedra nevadensis), and white bursage (Ambrosia dumosa). The area has been grazed by livestock since pioneers settled in the mid-1800's.

Soils are generally sandy or gypsiferous. Desert tortoise coversites appear to be restricted to caliche layers along the tops of steep slopes. Although not quantified, soils do not appear to be optimal for tortoise denning due to their highly erosional nature. Coversite density is low compared to other nearby sites.

No sign of disease such as the Upper Respiratory Disease (URDS) has been documented in tortoises in the immediate area. Tortoises on the Beaver Dam Slope, approximately 8 to 10 miles east of the project site, may have signs of URDS.

The project will not isolate any populations of desert tortoise. The Mormon Mesa population west of the project will remain connected to the Beaver dam Slope population through a 10 to 12-mile wide corridor north of the airport.

Further information on the range, biology, and ecology of the desert tortoise can be found in Burge (1978), Burge and Bradley (1976), Hovik and Hardenbrook (1989), Luckenbach (1982), and Weinstein et al. (1987).

Analysis of Impacts

Because the majority of direct impacts associated with construction activity have already occurred, the number of tortoises affected by construction activities at the Mesquite Airport site is unknown. Excavation of the airport runway and service areas have resulted in mortality of all tortoises that may have existed within the project site.

Desert tortoises near the project will be affected by the loss of foraging habitat and coversites which may have been destroyed by excavation activities. Direct impacts to tortoises may result from vehicle travel to the airport, vehicle travel on the airport site, and possible increased collecting pressures from the increased human presence in the area. Nicholson (1978) reported that tortoise densities within one mile of a highway dropped to near zero due to collection and collisions with automobiles. Tortoises may also be affected by the presence of low-flying aircraft and the increased noise levels at the airport. The increase in human activity may lead to increases in the population of common ravens (Corvus corax) in the vicinity. Ravens are very efficient predators of young tortoises and are attracted to trash generated by human activity.

Additional direct impacts to tortoises from surface disturbance will result from construction of the navigational aid site and a road from that site to the airport, affecting less than one acre. Indirect impacts to tortoises in the area may also occur from an increase in human activity in the area. Developments of private lands in association with the airport is likely to occur.

The FWS does not believe the impacts described above are sufficient to jeopardize the continued existence of the species. We present this conclusion for the following reasons:

1. The habitat in the project area has been degraded due to excessive human disturbance and supports low numbers of desert tortoises. The project area was previously used as a dump for the City of Mesquite. Part of the project area is within one mile of Interstate Highway 15. There has been significant human use of the area for livestock grazing, dumping, off-road vehicle free play, recreational firearm use, and temporary habitation.

2. The BLM will implement measures to reduce the take of individual tortoises during construction of the airport. The City of Mesquite will have a qualified biologist on the site during construction activities to ensure

tortoises within the project area are not harmed. Construction activity will cease until tortoises within the project area have been removed by a qualified biologist to an adjacent area out of harm's way.

3. No new surface disturbance except for the navigational aid and access road will occur. Surface disturbance will be limited to the area needed for the proposal. Surveys of the site and surrounding area (out 100 yards) concluded that no tortoise coversites would be disturbed by construction activities.

Cumulative Effects

Cumulative effects are those impacts of future State and private actions that are reasonably certain to occur in the project area. Future Federal actions will be subject to the consultation requirements established in Section 7 of the Endangered Species Act and, therefore, are not considered cumulative to the proposed project.

Many of the actions that are reasonably expected to occur within the vicinity of the project will be subject to Section 7 consultations, because the Federal government owns large portions of land in the area. However, actions on private lands, such as urbanization, recreation, and grazing, will continue to contribute to habitat degradation and loss, especially near the town of Mesquite. Development of private lands in association with the airport is likely to occur. In 1987, approximately 1,440 acres of BLM land in T. 13 S., R. 71 E., Sections 8, 9, and 10 were sold to the City of Mesquite for potential development areas. This land lies directly south of the airport. There is no development planned for areas in Nevada north or west of the airport, or in Arizona east of the airport.

Incidental Take

Section 9 of the Endangered Species Act prohibits the take of listed species without special exemption. Taking is defined as harassing, harming, pursuing, hunting, shooting, wounding, killing, capturing, collecting, or attempting to engage in any such conduct. Under the terms of Section 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 to be prohibited taking under the Act provided that such taking is in compliance with this Incidental Take statement.

The FWS anticipates that the project, as proposed and with additional stipulations as stated below, should not result in the take of any desert tortoises within the project area. The participation of a competent and qualified desert tortoise biologist during all construction phases of the access road navigational aid site will eliminate the potential for take of desert tortoises during this project. In addition, remaining construction will impact less than one acre of desert tortoise habitat.

The FWS assumes that the stipulations contained in this Opinion, as Reasonable and Prudent Measures and Terms and Conditions will eliminate the potential for take associated with the proposed action. These stipulations include measures developed by BLM in both the Environmental Assessment and Biological Assessment for this project that the FWS deems necessary to eliminate the possibility of take of desert tortoises during the construction of the access road and navigational aid site. The FWS does not authorize any form of take, including the collection of tortoises for pets. Any person found engaging in such an activity will be liable for prosecution.

Reasonable and Prudent Measures

The FWS believes that the following reasonable and prudent measures are necessary and appropriate to eliminate the potential of incidental taking of desert tortoises:

1. Construction crews contracted by the City of Mesquite, Nevada, shall limit their activities to the designated work areas to eliminate adverse impacts to desert tortoise habitat.
2. Attraction of ravens to the construction area shall be reduced to the maximum extent possible.
3. If take of tortoises occurs, the City of Mesquite and its working crews shall immediately cease those activities which resulted in take and request that the BLM reinitiate formal consultation with the FWS.

Terms and Conditions

To conform with the Reasonable and Prudent Measures presented in this Opinion, the BLM and its agent, the City of Mesquite, must ensure that the contractors employed on this project comply with the Terms and Conditions listed below. These Terms and Conditions are as follows:

1. All construction activities which could take tortoises in any manner shall occur in the presence of a qualified biologist. Guidelines for selection of a qualified biologist to determine presence or absence of desert tortoises are attached. The biologist shall flag burrows in a manner that will enable work crews to ensure that tortoises and their burrows are avoided. Should a situation arise in which a tortoise is at risk, the authorized biologist shall move the animal to safety. This Condition does not authorize any additional handling of tortoises. Any hazards to tortoises that may be created by this activity shall be eliminated prior to the work crew leaving the site.
2. The specific work areas for each section of this project must be designated and burrows within these areas flagged by a qualified biologist before any work can be started.

3. Construction employees shall be informed of the occurrence of the desert tortoise in the area and the status of this species. They shall be advised as to the potential impact to tortoises and the potential penalties (up to \$50,000 in fines and one year in prison) for taking an endangered species. They shall also be made aware of the specific restrictions placed on their activities by the Terms and Conditions included in this Biological Opinion.

4. The City of Mesquite shall implement a litter control program during construction that will include use of covered trash receptacles and prompt removal to avoid attracting common ravens.

5. The FWS is to be notified within three working days of any endangered species found dead or injured as a result of this action. Notification must include the date, time, and location of the carcass, and any other pertinent information. Dead animals may be marked in an appropriate manner and left on-site. Injured animals should be transported to a qualified veterinarian. Should any treated tortoises survive, the FWS should be contacted regarding the final disposition of the animals. The FWS contact person is Sherry Barrett, FWS, Phoenix, Arizona.

Conservation Recommendations

In furtherance of the purposes of the Endangered Species Act (Section 2(c) and 7(a)(1) that mandate Federal agencies to utilize their authorities to carry out programs for the conservation of listed species, we recommend implementing the following action:

1. Actively develop and implement programs to successfully revegetate disturbed desert areas with native vegetation. Areas would include the existing access road and pipeline road.

This concludes formal consultation on the Mesquite, Nevada Airport construction. If the action is significantly modified in a manner not discussed above or if new information becomes available on listed species or impacts to listed species, reinitiation of formal consultation with the FWS should be considered.

The initiation of formal consultation after the action has been completed is a rare circumstance for the FWS. Formal consultation should occur prior to affecting the action. We realize that the applicant was irresponsible in modifying habitat that was not considered in the original permit issued by BLM. Due to this action, we believe that the BLM was not in compliance with Section 7 of the Act. In the future, please ensure that formal and informal consultation occur prior to the action, as you have done routinely in the past. If we may be of further assistance, please contact Sherry Barrett or me (Telephone: 602/379-4720 or FTS 261-4720).

Literature Cited

Burge, B. L. 1978. Physical characteristics and patterns of utilization of cover sites by Gopherus agassizii in southern Nevada. Proc. 1978 Symp., The Desert Tortoise Council. Pp. 80-111.

Burge, B. L., and W. G. Bradley. 1976. Population density, structure and feeding habits of the desert tortoise, Gopherus agassizii, in a low desert study area in southern Nevada. Proc. 1976 Symp., The Desert Tortoise Council. Pp. 51-74.

Hovik, D. C., and D. B. Hardenbrook. 1989. Summer and fall activity and movements of desert tortoises in Pahrump Valley, Nevada. Abstract of paper presented at Fourteenth Annual Meeting and Symposium of the Desert Tortoise Council.

Luckenbach, R. A. 1982. Ecology and management of the desert tortoise (Gopherus agassizii) in California. In; R. B. Bury (ed.). North American Tortoises: Conservation and Ecology. U. S. Fish and Wildlife Service, Wildlife Research Report 12, Washington, D.C.

Nicholson, L. 1978. The effects of roads on desert tortoise populations. Proc. 1978 Symp., The Desert Tortoise Council. Pp. 127-129.

Weinstein, M., K. H. Berry, and F. B. Turner. 1987. An analysis of habitat relationships of the desert tortoise in California. A report to Southern California Edison Co.

Sincerely,



Sam F. Spiller
Field Supervisor

Attachment

cc: Field Supervisor, Fish and Wildlife Service, Reno, Nevada
(Attn: Mary Jo Elpers)
Field Supervisor, Fish and Wildlife Service, Salt Lake City, Utah
State Director, Bureau of Land Management, Phoenix, Arizona
Director, Arizona Game and Fish Department, Phoenix, Arizona
Regional Director, Fish and Wildlife Service, Albuquerque, New Mexico
(FWE/SE)

Attachment

Qualifications of Surveyor: The Fish and Wildlife Service does not necessarily endorse any individual or company with respect to their abilities to conduct satisfactory surveys. We provide the following guidelines as recommendations for selection of a biologist to conduct surveys to determine presence or absence of tortoises in a given area.

As a general rule, a qualified desert tortoise surveyor is a biologist with a bachelors degree or graduate degree in biology, ecology, wildlife biology, herpetology, or related fields. He/she must have demonstrated prior field experience using accepted resource agency techniques to survey for desert tortoises. Field experience may mean a minimum of 60 days field experience searching for tortoises and tortoise sign.

The surveyor should have the following qualifications for the survey results to be accepted by the Fish and Wildlife Service: 1) ability to recognize and accurately identify all types of desert tortoise sign as listed above and 2) ability to carefully, legibly, and completely record all sign including size of cover sites, shells, and estimated size of live tortoises.

To determine the accuracy of the surveyor in locating desert tortoise sign, the Fish and Wildlife Service suggests that the surveyor conduct an intensive survey in a portion of the project area following completion of the 100 percent survey. The size of the intensive survey area is 5 percent of the size of the project area. The intensive survey area would also receive 100 percent coverage using transects 10 feet wide rather than 30 feet. The location of the intensive survey would be plotted on the map and a comparison made between the sign recorded in this area during the 30-foot wide surveys and the 10-foot wide surveys. The quality or accuracy of the survey results for the project area will be determined by comparing the transect data with the data from the intensively surveyed area.

If the surveyor does not meet the minimal qualifications stated above or the quality of the survey results is low, the survey may not be deemed reliable by the Fish and Wildlife Service.