

**Habitat Conservation Plan  
for the Authorized Incidental Take of Desert Tortoise (*Gopherus agassizii*)  
from the Proposed Wildwash Sand & Gravel Mine Site,  
San Bernardino County, California**

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## EXECUTIVE ABSTRACT

*The County of San Bernardino has conditionally approved a mining and reclamation plan for E.L. Yeager Construction Company, Inc. to mine approximately 35 acres at the Wildwash site. The conditional approval, which is subject to Yeager's compliance with the County's conditions, is for a period of five years. The habitat conservation plan and incidental take permit application, pursuant to section 10(a)(1)(B) of the Endangered Species Act of 1973, as amended, submitted by Yeager to the U.S. Fish and Wildlife Service considered mining on up to 100 acres of the proposed site over 20 years. However, the analyses of the County, pursuant to the California Environmental Quality Act, and the Service, pursuant to the National Environmental Policy Act, did not completely address the effects of the proposed mining activities on the human environment for the 20-year period or the 100-acre mine site. Consequently, the Service has determined that the incidental take permit will authorize the take of plan species only on 35 acres with an initial term of 5 years. The Service's section 10(a)(1)(B) permit would then match the County's approval in terms of acreage and duration.*

*The habitat conservation plan has not been altered, other than by addition of the first two paragraphs of this section, to reflect this change. If Yeager wishes to conduct mining for a longer period or over a larger area, up to 20 years and 100 acres, the provisions of this habitat conservation plan would remain valid. An amendment to the incidental take permit will be required prior to additional mining. The Service's environmental assessment and the implementing agreement between the Service and Yeager would likely need to be supplemented and a notice published in the Federal Register to allow for additional public review.*

E.L. Yeager Construction Company, Inc. proposes to develop the Wildwash Sand & Gravel Mine on up to 100 acres of potentially occupied desert tortoise (*Gopherus agassizii*) habitat, located on the east side of Interstate 15, midway between Victorville and Barstow, San Bernardino County, California. The proposed development of the mine site in occupied tortoise habitat would be in violation of Section 9 of the Federal Endangered Species Act (FESA) unless a Section 10(a)(1)(B) incidental take permit is issued by the U.S. Fish and Wildlife Service (Service) prior to initiating mining operations.

This habitat conservation plan (HCP), pursuant to a site-specific 10(a)(1)(B) permit, is designed to minimize and mitigate the potential loss of tortoises and the expected loss of up to 100 acres of marginally suitable tortoise habitat. The Service's 10(a)(1)(B) permit would allow for immediate impacts on up to 35 acres, which comprise the "initial mining phase," and for ultimate impacts to the remaining 65 acres, which comprise the "subsequent mining phase(s)."

Other special-status species reported from the area include the State-listed, threatened Mohave ground squirrel and loggerhead shrike. Measures implemented to protect tortoises on- and off-site would also benefit these two species.

General measures include (a) protection of tortoises during the initial mining phase; (b) minimization of impacts to tortoises occurring in adjacent areas; (c) protection of tortoises during the subsequent mining phase; (d) minimization of impacts to Mohave ground squirrel and loggerhead shrike; and (e) off-site mitigation for impacts to tortoises, Mohave ground squirrels, and loggerhead shrikes.

The HCP also (a) provides for unforeseen events; (b) describes funding sources for all authorized activities; (c) discusses the “No Action Alternative” and “Alternatives Considered But Rejected;” (d) identifies other measures required by the Service, including an “Implementing Agreement” and “Monitoring Program;” (e) lists the literature reviewed for the completion of this and related documents; and (f) lists the persons contacted to complete these documents.

Additional documents drafted pursuant to the 10(a)(1)(B) permit include (a) formal request for issuance of the permit; (b) Federal Fish and Wildlife Permit Application Form; (c) Implementing Agreement; and (d) Draft Environmental Assessment. An application for a California Endangered Species Act Memorandum of Understanding has also been completed for State authorization of incidental take.

**Habitat Conservation Plan  
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**CHAPTER 1**

INTRODUCTION

This Habitat Conservation Plan (HCP) is prepared by Circle Mountain Biological Consultants (CMBC), on behalf of Land Planning & Entitlement Consultant, M.A. Yeager & Associates (Mark Yeager), who is the planning consultant enlisted by E.L. Yeager Construction Company, Inc. (Yeager or Proponent or Permittee). Herein, CMBC outlines a strategy whereby a Section 10(a)(1)(B) permit would be issued by the U.S. Fish and Wildlife Service (Service) to Yeager, which would allow for the incidental take of the Federally listed, threatened desert tortoise (*Gopherus agassizii*). This HCP outlines measures that would be implemented by Yeager to minimize and mitigate impacts to the desert tortoise under authority of Section 10(a)(1)(B) of the Federal Endangered Species Act of 1973, as amended (FESA).

A. Site Description

Most of the following information has been provided by M.A. Yeager & Associates (1997): *Project Description: Narrative Report/General Description of E.L. Yeager Const. Co., Inc.'s Wildwash Sand & Gravel Mine (on property owned by: Catellus Land Company)*, which is dated 27 May 1997, and has been submitted to the San Bernardino County Planning Department for environmental review.

Although the project is referred to as the “*Wildwash Sand & Gravel Mine*,” the proposed project is not within Wild Wash, nor is mining proposed within any USGS-designated blueline streams. The name was chosen because the site is accessed by the Wild Wash exit off Interstate-15.

The proposed Wildwash Sand & Gravel Mine Site (Project or mine site) occurs approximately 16 miles south of Barstow and 12 miles north of Victorville, due west of Stoddard Mountain, on the east side of Interstate 15 in unincorporated portions of San Bernardino County, California (USGS 7.5' Turtle Valley quadrangle, Section 9, Township 7 North, Range 3 West, SBBM) (Assessor's Parcel Number 418-011-04) (Map 1; all maps are included in Appendix 1). Proposed mining activities could eventually affect up to 100 acres of the 540-acre parcel that is owned by the Catellus Land Development Company (Catellus).

Yeager is the operator and applicant that proposes to mine up to 35 acres over the next five years (initial mining phase), and develop up to 65 additional acres over the subsequent 15 years (subsequent mining phase(s)). As such, during the next 20 years, an estimated 1,418,00 cubic yards (or 2,339,500 tons) of rock, gravel, and sand could be removed from up to 100 acres in support of miscellaneous construction projects in San Bernardino County. Aggregate material would be provided for the construction of two additional traffic lanes on Interstate 15, which is imminent.

The site's biological resources have been described in Thomas Olsen Associates, Inc. (1997) (Olsen) and Circle Mountain Biological Consultants (CMBC) (1997), which are summarized as follows (see Appendix 2 for copies of the two reports). As reported by Olsen, most of the site is vegetated by Mojave Creosote Bush Scrub (Holland 1986). They estimated that about 20 acres of the southern portion of the site had been significantly impacted by previous mining activities, which Mark Yeager (pers. comm., 29 and 31 July 1997) indicated was closer to 45 acres and was mined in about 1978 for freeway construction.

The native scrub has been eliminated from most of this previously mined area, so that species occurring there now are either not native to California [i.e., short-pod mustard (*Brassica geniculata*), tamarisk (*Tamarix ramosissima*), several grasses (*Bromus rubens*, *Bromus tectorum*), etc.] or are native species often associated with waste places [i.e., rabbitbrush (*Chrysothamnus nauseosus*), cheesebush (*Hymenoclea salsola*), desert milk-aster (*Stephanomeria pauciflora*), etc.]

In less degraded areas, creosote bush (*Larrea tridentata*) and burrobrush (*Ambrosia dumosa*) are the dominant species. Upland areas, between the various washes, are comprised of desert pavement to the west and slightly rockier areas to the east, where elevations are slightly higher (2,980 feet to the west and 3,180 feet to the east). Plant density is relatively sparse to the west and denser to the east. The densest and most diverse areas are within the washes, particularly the one along the northern boundary. Species commonly found in these areas include paperbag bush (*Salazaria mexicana*), Anderson's boxthorn (*Lycium andersoni*), brittle bush (*Encelia farinosa*), cottonthorn (*Tetradymia* sp.), and needlegrass (*Stipa speciosa*). The four cactus species identified by Olsen are relatively more common within and adjacent to the washes than in upland areas, with the possible exception of beavertail cactus (*Opuntia basilaris*), which may be more common on pavement and other upland areas.

## B. History of Conservation Planning Process

To our knowledge, no focused surveys for biological resources had been conducted on the site prior to Olsen's 1997 focused survey for tortoises. Previous mining activities likely occurred with limited or no environmental review, and were conducted prior to requirements imposed by the Surface Mining and Reclamation Act of 1975 (SMARA); hence the unrestored condition of the ± 45-acre borrow pit (Mark Yeager, pers. comm., 29 and 31 July 1997).

Olsen found four relatively fresh, tortoise scat in the wash at the northern boundary of the site, but did not find any other tortoise sign on the remainder of the site. Based on their findings, they advised Yeager as follows:

*“No individual desert tortoise were observed on site. The four scat located during the survey is sufficient sign to warrant construction of a tortoise fence for the perimeter of the construction site. Following fence construction, a 100% survey should be conducted within the fenced area. With the high level of use by off road vehicles in the area it is recommended that the fence be monitored and maintained periodically during the course of mining activities. These recommendations will satisfy agency requirements and reduce the possibility of incidental take of a desert tortoise.”*

One month after Olsen’s April 1997 survey, on 30 May 1997, Randy Scott of the San Bernardino County Planning Department (County) asked CMBC to visit the site and determine if Olsen’s findings were accurate. He also asked that CMBC provide a report discussing appropriate regulatory measures for development of the site, which are reported in Circle Mountain Biological Consultants (1997).

During a brief, seven hour reconnaissance survey of the site on 5 June 1997, CMBC found a total of 12 scat in the same northern wash, but more importantly, also found two tortoise burrows with older scat on the eastern portions of the site (Map 2), where no tortoise sign had been previously documented. Based on these findings, CMBC advised Yeager as follows (Circle Mountain Biological Consultants 1997):

*“Incidental take of desert tortoises should be permitted before the take has occurred. The following recommendations are presented in descending order of preference:*

*“• The proponent should reduce the size of the site to avoid tortoises, and consider expansion of the existing pit to the north, along I-15, rather than east where CMBC found tortoise burrows. We [CMBC] expect that potential impacts to tortoises are directly proportional to how large the site is; the farther out the boundary extends from the existing gravel pit, the more likely one is to encounter and impact tortoises. We expect that tortoises are more likely east of the existing pit than north of it, which would need to be confirmed prior to ground disturbance. If this approach is taken, the clearance survey of the reduced area should occur before the fence is installed, and installation may need to be monitored.*

*“• The proponent should determine if this project is an “Interrelated Action” that may be authorized under the larger project. CMBC understands that the Service is preparing its Biological Opinion for the I-15 widening*

*project; given its association with that project, could the gravel pit be authorized under the same opinion?*

*“• If there is no Interrelated Action nexus, the proponent should determine if there is a federal agency that will fund, authorize, or carry out any portion of the project, which would constitute a federal action and require permitting under Section 7 of FESA. Funding by the Federal Highway Administration or permitting by the Army Corps of Engineers may constitute a nexus that would allow formal consultation to occur.*

*“• If there is no federal nexus, the proponent may need to obtain a 10(a)(1)(B) incidental take permit from the Service.”*

Based on CMBC's findings, the County required that Yeager obtain appropriate authorization prior to site development. During early July 1997, Mark Yeager discussed the project with Doug Laye of the Service. Laye indicated that he did not think that there was a Section 7 nexus, nor did he think that the size of the project area could be reduced to avoid tortoises, as CMBC had recommended. It was his conclusion that the 10(a)(1)(B) process was the only one available to ensure that Yeager did not violate Section 9 of FESA.

CMBC was contracted by Mark Yeager on 24 July 1997 to assist with the permitting process. Ed LaRue, of CMBC, met with Ray Bransfield of the Service briefly on 25 July 1997, where Bransfield reiterated that a 10(a)(1)(B) permit would be required for site development. LaRue spoke with Laye on 29 July 1997 to discuss the appropriateness of a “Low-Effect” HCP for mine development. LaRue and Laye concurred that the Low-Effect HCP was likely appropriate, and that LaRue would provide the rationale supporting the applicability of this expedited approach to permit issuance.

CMBC concluded that the Low-Effect HCP was appropriate for the following reasons: (1) no tortoises were found during 100% coverage of the site by Olsen (three surveyors spent three days surveying the site at 30-foot transects) or CMBC; 16 scat were found in three aggregations in the northern wash, and two inactive, definite tortoise burrows were found in upland areas on the eastern portions of the site, which is not indicative of high or even moderate density tortoise areas; (2) nearby lands managed by the Bureau of Land Management (Bureau) have been designated as Category III habitat; the Bureau manages this habitat category to reduce the adverse effects of actions on the tortoise but recovery of tortoises in these areas is not a goal; (3) the site is not within a proposed Desert Wildlife Management Area (DWMA) or tortoise critical habitat, as designated by the Service; (3) at least 40% of the site has been impacted by mining activities occurring in the late 1970's (Mark Yeager, pers. comm., 31 July 1997), and the remainder of the site “...exhibits extensive evidence of human disturbance with ORV [sic] trails, roads, [and] debris piles...” (Thomas Olsen Associates, Inc. 1997); (4) any resident tortoise population has likely been significantly reduced due to the proximity of the site to Interstate 15 (Nicholson 1978; LaRue 1992; Marlow and Hoff 1992); and (5) impacts will, ultimately, be temporary, as the

site is to be reclaimed concurrently with mining operations (M.A. Yeager & Associates 1997).

However, on 11 September 1997, the Regional Office of the Service concluded that this project would not constitute low-effect under the National Environmental Policy Act (NEPA) based on the potential cumulative impact of sand and gravel mining in the region. They concluded that, whereas impacts of this project to desert tortoise may be considered low-effect, the cumulative impact to the environment could not be considered low-effect. As such, this HCP has been reformatted and the associated Environmental Assessment has been expanded; hence, the "24 September 1997" revision date on the title page.

### C. Project Description

The mine would consist of an excavation pit that will be used for extraction of sand and gravel, a mobile screening and crushing plant, and a portable asphalt concrete plant. Yeager would remove an estimated 1,418,000 cubic yards (or 2,339,500 tons at 1.65 tons per cubic yard) of rock, gravel, and sand as shown in the mining plan, intended for construction projects in San Bernardino County over a 20 year life span. Yeager would provide about 190,000 cubic yards of aggregates for the first phase of the Interstate 15 widening project and extract an estimated 150,000 cubic yards per year for 20 years. Depending on timing of permits and additional County approval, the mine would begin operations in 1997 and end in about 2017.

Equipment required for mining will include a portable crushing and screening plant, a portable drum mixer type asphalt concrete plant, bulldozers, water trucks, front-end loaders, motorgrader, supervisory pick-up trucks and cars, and street legal trucks. Extensive discussion as to how these vehicles would be used is provided in the Environmental Assessment (M.A. Yeager & Associates 1997).

Mark Yeager indicated that a surface mining process would include extracting material into a screening plant for stockpiling finished materials by size (e.g., 1/2" gravel, 3/4" gravel, etc.), and product (Class 2 Aggregate) for use in asphalt concrete. The rock and sand can be trucked to a given construction site as is or mixed with asphalt emulsion into asphalt concrete and trucked to a "public works" job site.

*this does not include cement, right? There are a cement batch plant would not be covered*

Ancillary uses commonly found in conjunction with mine excavation and plant sites, such as equipment service areas, fueling stations, portable office trailers, and mineral storage areas would also be constructed within site boundaries. Roads would be maintained with motorgraders ("blades") and dust would be controlled by use of water trucks. A 100 foot minimum setback would be maintained along any and all property lines. The setback is planned for security and safety of the mine site, reclamation of the site, and to provide sufficient mitigation from all possible erosion and headcutting concerns, namely those based

on U.S. Army, Corps of Engineers criteria. The active mine area shall be surrounded by tortoise-proof fencing with “No Trespassing” signs placed every 400 feet.

Finished slopes would not exceed 3:1 (horizontal : vertical). As the surface mining operation progresses, the ultimate slope grades would be achieved along with installation of appropriate erosion protection (slope walking-stabilizing, seeding, etc.); revegetation of the slopes and the mine floor shall commence on an incremental basis. The site will be SMARA (and AB 3098) approved to insure marketability to Caltrans and other State agencies as well as to local cities and the County. All mining operations shall comply with the Mining and Reclamation Plan identified in M.A. Yeager & Associates (1997), as well as comply with the pending Conditions of Approval to be prepared for this project by the County of San Bernardino Agencies and Departments.

The objectives of the Mining and Reclamation Plan are given as: (1) to revegetate the site; (2) to mitigate and reduce the visual impacts as a result of the changes of land form and revegetation; and (3) to mitigate runoff impacts and restoration of flows of runoff storm waters to natural, existing conditions.

With input from the biologist, vegetation would be scraped from phase 1 areas and stockpiled outside the excavation area so that it may be used in reclamation. M.A. Yeager & Associates (1997) estimates that about 147,000 cubic yards of unusable sand and crushed materials would result from mining activities; these materials would be returned to the open pit as part of reclamation. Test plot areas for the reseeding program shall be located within the area of previous mining activity as shown in the Mining and Reclamation Plan. Test plots will allow observation of the revegetation program’s effectiveness, whereby modification can be made if necessary.

Current plans are to revegetate each acre of impact with 5 pounds of palo verde (*Parkinsonia aculeata*) seed, 10 pounds of creosote bush (*Larrea tridentata*) seed, and 15 pounds of brittle bush (*Encelia farinosa*) seed, with continuing input from the project biologist. Following soil preparation and seeding, the site will be monitored for success rate per the goals established for the seed mix versus the natural vegetation and density of the area. For two years following site reclamation, the site shall be monitored by the operator for success of reclamation and revegetation as well as for maintenance. It is estimated that reclamation costs will be about \$189,578.00 (M.A. Yeager & Associates 1997).

Per SMARA and as approved by the County, a Reclamation Bond shall be posted and the original bond, for an approved amount, shall be held by the County. The State of California shall be named on the financial assurance instrument.

Extensive, additional information is provided in the following documents, which are incorporated by reference: M.A. Yeager & Associates 1997; San Bernardino County 1997a, 1997b, and 1997c.

D. Summary of Expected Impacts

Up to 35 acres of creosote bush scrub would be lost during the next five years of mining activities. Areas to the west, which are occupied by Interstate 15 would not be significantly affected by these activities. Given that most of the tortoise sign is found on the northern and eastern portions of the site, tortoises in adjacent areas to the east and north are more likely to be affected.

Mitigation measures recommended herein are designed to avoid direct impacts to adjacent areas. However, undeveloped areas to the north and south, and particularly to the east, away from Interstate 15, may be indirectly affected by mining activities. These effects are not considered to be as significant as if the proposed project was a residential development. Even so, the effects of fugitive dust, ground vibration, noise, etc. on tortoises are poorly understood and could adversely affect tortoises resident in adjacent areas.

The initial mining phase would result in the loss of up to 35 acres of marginally suitable tortoise habitat within the next five years, and up to 65 additional acres could be incrementally affected during the subsequent mining phase(s). Desert tortoises may be killed if protective measures are not implemented; unauthorized "take" would be in violation of Section 9 of FESA.

One beneficial impact associated with this project is the ultimate purchase of up to 100 acres of compensation habitat, which would be managed in perpetuity for the conservation of tortoises. The subject mine is not located in an area that can be reasonably managed for tortoise conservation, although compensation land will be located in such a manageable area. The compensation lands, as required by this HCP, will be in Bureau Category I habitat, in designated critical habitat, and within a DWMA, which are the areas that have been identified by the Service as essential for the survival and recovery of the species. They will also occur within the historic range of the Mohave ground squirrel, which will partially offset potential impacts to habitat that may be lost to mining activities.

A single loggerhead shrike was observed on-site during CMBC's June 1997 survey. It is possible that shrikes may nest in the palo verde trees along I-15 or in Mohave yuccas that are sparsely located throughout the site. If so, depending on the timing of initial ground disturbance of initial and subsequent phases, several nesting shrikes could be adversely affected by those activities. This HCP identifies measures to minimize or avoid this potential impact.

## CHAPTER 2

### BIOLOGICAL DATA AND SPECIES OF SPECIAL CONCERN

#### A. Desert Tortoise (*Gopherus agassizii*)

##### 1. *Species description and overall status*

Desert tortoises occur in creosote bush scrub and saltbush scrub communities throughout the region, where they occur in burrows excavated in firm soil, typically at the bases of shrubs. Threats leading to its listing included residential and agricultural development of historic habitat; impacts associated with various human activities such as off-highway vehicle use, sheep and cattle grazing, and mining; collection for pets and ceremonial purposes; military maneuvers; raven predation; and effects of Upper Respiratory Tract Disease. Extensive, additional life history information is provided in the following references: Woodbury and Hardy 1948; Burge and Bradley 1976; Burge 1978; Luckenbach 1982; Berry 1984; Weinstein et al. 1987; Hovik and Hardenbrook 1989; etc.

Desert tortoise, which was Federally listed as threatened in 1990 (U.S. Fish and Wildlife Service 1990), is known to occur throughout the region surrounding the Wildwash area. Maps produced by the Bureau (1980) indicate that the proposed mine site is located within an area that supported more than 250 tortoises per square mile. Interstate 15 bisects this high density, tortoise area, and has very likely affected tortoise densities in the immediate vicinity of the freeway, as described in Nicholson 1978, LaRue 1992, and Marlow and Hoff 1992.

As indicated above, the site is not found within regional areas that have been identified as essential to the survival of the species; the nearest critical habitat areas and proposed DWMAs are 10 miles east (Ord-Rodman Unit) and 10 miles west (Fremont-Kramer Unit) of the subject property. Adjacent, Bureau lands are designated as Category III habitat, which is not considered essential to the maintenance of viable populations of tortoises.

##### 2. *Status of desert tortoise in project area*

No tortoises have been found on the site by focused, 100% surveys (Thomas Olsen Associates, Inc. 1997) or reconnaissance surveys (Circle Mountain Biological Consultants 1997). However, evidence of two or three tortoises has been found: one tortoise in the northern wash; one tortoise near the northeastern corner, which may be the same individual as above; and one tortoise near the southeastern corner (Map 2). CMBC provided the following information (see Appendix 2 for figures and other cited information):

*“Olsen found four fairly fresh scat in the wash at the north end of the site. CMBC found the following tortoise sign in the same wash: 13, mostly older, adult scat in a large wood rat midden under a caliche overhang on the north side of the wash (#1 on Figure 3); one older, adult scat in a second*

wood rat midden several hundred feet east of the caliche overhang on the north side of the wash (#2 on Figure 3); and two very fresh, adult scat under a small caliche overhang on the south side of the wash (#3 on Figure 3). Whereas the scat in the middens were carried there by the resident wood rats, the two scat found to the west (i.e., #3), which were several days to several weeks old, were deposited there by the tortoise. Although we searched adjacent areas for tortoises and burrows, none were found.

“No tortoise sign was found in the 45 wood rat middens that were inspected in the three washes south of the main, northern wash, where most of our survey effort was focused. We spent very little time (about 1.5 of the 7.5 hours on-site) surveying the upland areas where the “new” tortoise sign was found; i.e., sign that was not detected by the Olsen survey team.

“An older, very large scat of an adult tortoise was found in a scrape beneath a creosote bush on the northeastern portion of the site (#4 on Figure 3). An intact, possibly active pallet burrow, measuring 8” wide by 12” deep, was found about 50 feet east of this scat.

“A second pallet burrow, with no evidence of recent use, measuring 12” wide by 12” deep, was found approximately 1,000 feet south, southeast of the burrow described above (#5 on Figure 3). A relatively fresh scat of an adult tortoise was found 10 feet west of this burrow, and a drinking depression, possibly produced by the same tortoise, was found 30 feet north of the burrow.

“The 16 scat found by CMBC in the northern wash only confirms the findings reported by Olsen; the two burrows found in upland areas, well south of this wash, constitute significant new findings, not reported by Olsen. Given the size differences between these two burrows and the 1,000-foot distance between them, we conclude that the burrows were produced by two different tortoises. The locations of these two burrows in upland areas, relatively far from the northern wash, is evidence that tortoises are not restricted to northern portions of the site and that evidence of at least three tortoises occurs on-site.

“Given these findings during our cursory survey, it is possible that additional tortoise burrows, not found by Olsen’s surveyors, may occur. Tortoise burrows and scat are evidence of occupied habitat, even when actual tortoises are not found. Olsen’s conclusion that “No federally listed threatened or endangered species or special status species were identified as occurring on the Wildwash site. Sign (scat) of the desert tortoise was observed.” is conflicting, since the presence of scat (and the burrows found by CMBC) is evidence that tortoises have used the site and could occur in the future.”

Given these observations, tortoises likely occur throughout the surrounding areas in low densities, and may very likely be found on some portion of the 100-acre site at the time of ground disturbance, particularly in areas to the east.

3. *Effects of the Proposed Action on desert tortoise*

The Proposed Action is issuance of a 10(a)(1)(B) permit that would authorize the immediate development of up to 35 acres and the future development of up to 65 additional acres. The Proposed Action includes all mitigation measures given in Chapter 3 of this HCP.

Impacts to tortoises that would be associated with the Proposed Action for initial and subsequent mining activities have been summarized in Chapter 1, Section D, and are not reiterated herein. The following, additional information is provided relative to compensation of habitat, which is considered a beneficial impact of the project.

Given that the mine site is found in an area where surrounding Federal lands are designated as Category III Habitat (Bureau 1989), Yeager proposes to mitigate impacts at a ratio of 1:1 (Desert Tortoise Compensation Team 1991); that is, for each acre of tortoise habitat lost to development, Yeager will provide the Bureau (see discussion below) with one acre of compensation habitat.

Yeager proposes to compensate the initial mining phase first, and compensate other impacts later prior to any ground disturbance on subsequent mining phase(s). A parcel of land up to 35 acres, which compensates impacts for the initial mining phase only, shall be purchased and deeded to a Service-approved management organization *prior to any ground disturbance*. The compensation land shall be located within the following designated habitat areas: (a) within California Department of Fish and Game (Department) designated *Crucial* Habitat, which corresponds with Service-designated Critical habitat (Tierra Madre Consultants, Inc. 1991a); (b) outside transportation and utility corridors, which is a requirement of the Department (Tierra Madre Consultants, Inc. 1991a); (c) within Service-designated critical habitat (Service 1994a); and (d) within Bureau-designated Category I habitat (Bureau 1989).

Although the Bureau is not the Federal Lead Agency (it would not “fund, authorize, or carry out” any portion of the project), it is chosen as the management agency because it already has the established infra-structure to manage tortoise critical habitat. As part of the West Mojave Coordinated Management Plan, DWMA's would be established in the western Mojave Desert; because of the requirements in this HCP of where Yeager must acquire the compensation lands, a high likelihood exists that the lands transferred to the Bureau would be within a DWMA.

B. Mohave Ground Squirrel (*Spermophilus mohavensis*)

1. *Species description and overall status*

Mohave ground squirrel (MGS) is State listed as threatened. Historically MGS occurred north to Olancho, south to the San Gabriel and San Bernardino Mountains, east to Lucerne Valley, and west to the Lancaster/Palmdale area. The Mine Site is near the southeastern portion of its range.

MGS has been trapped or observed in creosote bush scrub, saltbush scrub, and Joshua tree woodland, and may be absent from rocky, steep slopes, and dry lake playas. It is generally active from March through July and remains inactive, in underground burrows for the remainder of the year. Threats similar to those for tortoises also affect MGS. Additional life history information is provided in the following references: Wessman 1977; Aardahl and Roush 1985; and Zeiner et al. 1990b.

2. *Status of Mohave ground squirrel in project area*

No focused trapping surveys have been performed on-site for MGS. The most comprehensive trapping surveys of the region were performed by Wessman (1977), who trapped them 10 miles west at Silver Lakes and Helendale and approximately 13 miles south, just west of Victorville. There are historic records as far southeast as Rabbit Dry Lake in western Lucerne Valley. Based on current, known information, the proposed Mine Site is located within an area where the range of MGS overlaps with that of round-tailed ground squirrel (*Spermophilus tereticaudus*). For purposes of this HCP and the attached California Endangered Species Act Memorandum of Understanding (CESA MOU) application to the Department, CMBC assumes that the site may be occupied by this species, so that necessary permits are being solicited to ensure no violation with applicable State regulations.

3. *Effects of the Proposed Action on Mohave ground squirrel*

Development of the Mine Site would result in the eventual loss of up to 100 acres of potentially suitable habitat. Animals resident on-site at the time of mine development would be lost to ground disturbing activities. This HCP is developed on the premise that 100 acres of MGS habitat and resident animals could be lost, which would be considered a significant impact under the California Environmental Quality Act (CEQA) and constitute take under the California Endangered Species Act (CESA). Compensation lands have been chosen, in part, because they occur within the range of MGS; mitigation measures designed to minimize impacts to adjacent areas will also benefit this species.

C. Loggerhead Shrike (*Lanius ludovicianus*)

1. *Species description and overall status*

The loggerhead shrike is a California Species of Special Concern. They are open country birds, found in a variety of habitats from hardwood savannahs to Joshua tree woodland and desert riparian. Scattered perch sites such as fence posts, shrubs, utility lines, and trees are an important habitat component. Shrikes feed primarily on large insects, also small mammals, birds, amphibians and reptiles, fish, carrion, and invertebrates. Loggerhead shrikes are known for caching their prey on thorns, barbed wire, and sharp twigs. They breed from March to May, laying clutches of four to eight eggs in well-concealed nests in a trees or shrubs.

2. *Status of loggerhead shrike in project area*

A single loggerhead shrike was observed near the southwestern corner of the site, adjacent to Interstate 15. The best available nesting substrates for this species are the palo

verde trees (*Parkinsonia aculeata*) along the drainage, adjacent to Interstate 15, which, we assume, were planted there by Caltrans. The Mohave yucca (*Yucca shidigera*) found sparsely distributed in upland areas of the site may also be used for nesting. The entire site is considered to be suitable foraging habitat for the species.

3. *Effects of the Proposed Action on loggerhead shrike*

CMBC (1997) concluded that impacts to one or several loggerhead shrikes would not constitute a CEQA significant impact. Shrikes are likely to be dispersed from the site and forced to forage and nest in adjacent areas. However, they are relatively tolerant of human habitation and may continue to use unmined portions of the site for foraging and possibly nesting. Mark Yeager has indicated that the palo verde trees along Interstate 15 will be avoided, as they occur within the 100 foot buffer around the boundary of the site. Palo verde is also one of the plants that is presently planned for site revegetation. As such, impacts to loggerhead shrike, if any, will be temporary and should be effectively mitigated.

### CHAPTER 3

#### MEASURES INTENDED TO MINIMIZE AND MITIGATE THE TAKE OF SENSITIVE SPECIES

##### A. Minimization of Impacts to Desert Tortoise

This section identifies measures that will be implemented on-site to minimize impacts to any desert tortoises that may be found at the time of mining activities.

###### 1. *Desert tortoise on the initial mining phase*

The take of desert tortoises from up to 35 acres comprising the initial mining phase shall be minimized by the following actions.

a. Prior to implementing any of the following measures, Yeager must provide up to 35 acres of compensation lands to the Bureau to mitigate impacts of the first phase of mine development. The Bureau shall send written notice to the Service's Ventura office with carbon copies to Yeager that up to 35 acres have been received to offset impacts associated with the first phase of development. Yeager may then implement the following measures and begin mining activities.

b. Prior to ground disturbance, workers shall be given an education program advising them of the presence of desert tortoises on and adjacent to the site. The Service shall review the program prior to its use. The program shall be administered by a representative or the qualified biologist, as identified below. The program shall be administered by a representative or the qualified biologist listed by the Federal government as a representative or the qualified biologist. It is noted that the desert tortoise is listed by the Federal government as a threatened species and that there are penalties for violations of the Federal Endangered Species Act, the unauthorized take of desert tortoises (16 U.S.C. 1540).

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c. Yeager shall appoint a Field Contact Representative (FCR) to ensure that all measures delineated in this HCP are fully implemented. The FCR shall be responsible for overseeing compliance with Service-approved protective measures identified herein.

d. Yeager shall enlist a qualified biologist to implement all survey and handling activities for desert tortoises. Yeager shall provide the Service with résumé(s) of prospective biologist(s) for review and approval at least 15 days prior to the onset of ground disturbance. Only those biologists authorized by the Service shall participate in surveying for and handling desert tortoises.

e. Prior to the onset of ground disturbance, the project biologist will assist Yeager in choosing an area for the initial mining phase that will result in the fewest impacts to tortoises. A desert tortoise-proof fence shall be installed around the 35 acres comprising the initial mining phase to prevent tortoises from entering the Mine Site. The purpose of the

fence is to exclude tortoises from the mine area and to minimize indirect impacts to adjacent, undeveloped areas.

f. A qualified biologist shall be present to monitor fence installation. The FCR and qualified biologist shall advise Yeager how to install and maintain the fence in a manner that will prevent the entry of desert tortoises into the work area. Workers shall be informed that their activities are to be restricted to the fenced area.

g. After the fence has been installed and prior to other ground disturbing activities, the authorized biologist shall conduct two surveys of the fenced area for desert tortoises and their burrows, using the established Service protocols for surveying (U.S. Fish and Wildlife Service 1992). If tortoises and/or burrows not detected during the first survey are found during the second survey, additional surveys shall be conducted until desert tortoises are no longer detected. Burrows may be excavated as they are found or, alternatively, may be flagged and excavated after surveys are completed.

h. The qualified biologist shall maintain the following information relative to excavated tortoise burrows, which will be reported in the final report as per measure A.1.r.: (i) location of each burrow on a map of appropriate scale; (ii) width, height, and condition of the burrow prior to excavation; and (iii) depth and contents of each burrow (e.g., no tortoise sign, old or fresh scat, tortoise, etc.) after excavation.

i. All burrows shall be excavated using hand tools only, either by or under the direct supervision of the authorized biologist. All unoccupied burrows shall be filled in or excavated so that desert tortoises cannot re-enter them.

j. All tortoises shall be handled in accordance with guidelines given in Desert Tortoise Council (1994) (see Appendix 3).

k. Tortoises removed from the initial mining area shall be placed outside the fenced area on Yeager's adjacent lands. Alternatively, with prior permission from either the Bureau or private land owner, the biologist may translocate tortoises into adjacent areas not owned/leased by Yeager to avoid handling the tortoises again during development of subsequent mining phase(s).

l. The qualified biologist shall observe the relocated tortoises a sufficient amount of time to ensure that they have not been placed at risk. As per Desert Tortoise Council (1994), it may be necessary for the biologist to place tortoises in artificial burrows to avoid adverse weather conditions.

m. The qualified biologist shall maintain the following information relative to relocated tortoises. This information shall be included in the annual report as per measure A.1.r. and shall be submitted to the Service: (i) *Data Sheet for Handling Desert Tortoises* (see Desert Tortoise Council 1994); (ii) map and narrative on locations of burrows and

tortoises, how many burrows were excavated, how many tortoises were handled, locations of relocated tortoises, etc.; (iii) the number and location marked on each tortoise; and (iii) any pertinent observations following relocation, particularly evidence that the tortoise was or was not adversely affected.

n. The authorized biologist or FCR shall contact the Service if the harassment limit or the mortality limit set in the Service's biological opinion is met. Herein, we recommend that the harassment limit be set to *all tortoises occurring on the 100-acre Mine Site*; the mortality limit must be decided by the Service and will appear in the intra-Service biological opinion drafted for this project.

o. Every precaution shall be taken to ensure that no desert tortoises are killed by brushing, grading, or mining activities. These precautions shall include the following nonexclusive list of measures:

i. All vehicles, including heavy equipment and personal vehicles, shall use established roadways to access the site. All vehicles shall be restricted to the site and shall not disturb areas adjacent to the initial mining area. The existing, disturbed borrow pit would function very well as a staging area and may be used even if it is not included within the fenced area.

ii. All mine personnel shall be forewarned that desert tortoises seeking shade may crawl beneath parked vehicles. Therefore, all personnel shall check the ground beneath parked vehicles before moving the vehicle. If a desert tortoise is found beneath the vehicle, and the qualified biologist is still on-site (see Section A.1.p.), the biologist shall be called immediately to move the tortoise from harm's way. Alternatively, the vehicle shall not be moved until the tortoise has left the area on its own.

iii. In the event a desert tortoise is injured, it shall be immediately taken to the Bear Valley Animal Hospital (760-240-5228), which has qualified veterinarians experienced in the care of injured tortoises. Any veterinary bills resulting from such an injury shall be paid by Yeager. If the veterinarian determines that the tortoise cannot be returned to the wild because of its injuries, the Service shall be contacted for advice on the final disposition of the tortoise. If the tortoise can be returned, it will be relocated as approved by the Service, likely in the vicinity of the site.

iv. If a tortoise is accidentally killed or found freshly dead in the vicinity of mining activities, it shall be reported to the Service within three working days by either the qualified biologist or FCR. A written report shall be submitted within five working days, and shall include the date, time, location, and circumstances of the death.

v. To avoid attracting common ravens and other desert tortoise predators to the site, Yeager shall ensure that a litter-free environment is maintained at the Mine Site. The FCR or qualified biologist shall inform the mine foreman or supervisor that

all trash and food scraps shall be placed in containers with lids and that these containers shall be emptied at authorized locations on a timely basis.

p. A qualified biologist does not need to remain on-site once it has been fenced, tortoises removed, and the vegetation cleared. The fence is intended to exclude tortoises from the mining area and all personnel will have been forewarned to restrict their activities to that area. It shall be the responsibility of the mine supervisor to have the fence periodically checked to find and repair any breaks. If a tortoise is found within the fenced area after the biologist is no longer required, the following measures shall be implemented:

i. The project foreman or supervisor shall call the FCR or qualified biologist.

ii. All activities likely to harm tortoises shall stop until the authorized biologist arrives.

iii. The foreman or supervisor shall watch the desert tortoise until the biologist arrives. Upon arrival, the biologist shall move the tortoise to adjacent lands, outside the fence.

iv. The biologist shall work with mine personnel to find and close the breach in the fence that allowed the tortoise to immigrate onto the site.

q. For the first month of mining activities after the biologist leaves the site, the biologist will make unannounced visits to the site one time each week to ensure that protective measures continue to be implemented and enforced. Following that first month, if measures are being adequately implemented, the biologist shall visit the site one time each month for the first six months of operation to ensure compliance. Following that, the biologist shall arrange an unannounced site visit with Yeager once each year for the life of the project; Yeager would not announce the site visit to mine personnel. Among other things, the biologist shall check the fence for breaches, ensure that a litter-free environment is maintained, ensure that mining impacts are not outside the fenced area, etc. If the biologist determines that measures are not being implemented, he/she shall contact the FCR, Yeager, and the Service to determine other means to ensure compliance with protective measures.

r. Within 90 days after completion of fence installation and tortoise removal, if any, the FCR and/or authorized biologist shall prepare a report for submittal to the Service. A similar report will be submitted to the Service at the end of each year for as long as mining activities are covered by the 10(a)(1)(B) permit. Each report shall document the effectiveness of the mitigation measures, the number of desert tortoises excavated from burrows, and the number of desert tortoises moved from the Mine Site. The report will make recommendations for modifying or refining the above stipulations for subsequent mining activities to enhance desert tortoise protection or to reduce needless hardship on the project proponent.

2. *Desert tortoise in adjacent areas*

Once the initial mining area has been fenced and tortoises, if any, removed, Yeager shall implement the following measure to minimize indirect impacts to surrounding areas:

a. Yeager shall, as necessary, monitor the perimeter, tortoise-proof fence to ensure that it continues to effectively exclude tortoises from mining areas.

b. Yeager shall ensure that all direct impacts associated with the mine are restricted to the fenced area or on disturbed portions of the mined area.

3. *Desert tortoise on subsequent*

The measures delineated above shall apply only to the initial phase of mining. No mining of subsequent phase(s) is allowed until the measures have been implemented. The take of desert tortoise in subsequent mining phase(s) shall be minimized by the following:

a. Prior to implementing any of the measures, Yeager must match the number of acres comprising the subsequent mining phase(s) to be developed with the same amount of compensation habitat, and provide those acres to the Bureau or other Service-approved management organization to mitigate impacts. The Bureau or other organization shall send written notice to the Service's Ventura office with carbon copies to Yeager that compensation lands have been received to offset impacts associated with phased mining.

Alternatively, subject to Service approval, Yeager may choose to compensate for lost habitat under a Service-approved, programmatic plan, such as the West Mojave Coordinated Management Plan (WMCMP), that may be in place at the time of future phase development.

Yeager shall then implement the following measures.

i. Prior to initiating any mining activities on subsequent phase(s), Yeager shall enlist a qualified biologist to survey the phase(s) to be mined. The survey shall cover 100% of the site and be designed to determine the number of tortoises that occur within the phase to be mined. The results of the survey and the anticipated date that this phase of the mining will start shall be submitted to the Service. Yeager may then begin mining activities with implementation of the following measures.

ii. All measures identified above in Chapter 3, Section A.1. shall be implemented for future mining, and be repeated as often as necessary until up to 100 acres comprising the Mine Site are developed. The 10(a)(1)(B) permit shall authorize mining activities for only this site; no other development projects are covered by this permit. Yeager requests that the 10(a)(1)(B) permit remain effective for 20 years; until the year 2017, assuming the permit is issued in 1997.

*Suggests fill compensation on subsequent development lands to*

B. Minimization of Impacts to Mohave Ground Squirrel

Measures identified above for tortoises, which are designed to minimize indirect impacts and restrict direct impacts to the 100 acres, will also protect MGS habitat adjacent to the site.

C. Minimization of Impacts to Loggerhead Shrike

Mine development shall consider the locations of palo verde trees and avoid as many trees as possible; most trees will occur within the protected, 100-foot buffer zone and should not be affected. The plant pallet identified in the Mining and Reclamation Plan currently has palo verde as one of its components to facilitate the reintroduction of this tree species onto the site, which may ultimately benefit shrikes.

Under the Migratory Bird Treaty Act, project development cannot take individual birds, their nests, eggs, or young (Service's Regional Office, pers. comm., 16 September 1997). As such, the following recommendations are made if initial ground disturbance occurs between February and June: (a) concurrent with tortoise surveys, the biologist shall also inspect each Mohave yucca and palo verde within the zone of impact for nesting shrikes; (b) if nesting shrikes are found, a buffer area of 50 feet shall be established around the nest, and no blading activities shall occur in the buffer area; (c) blading activities may occur outside the buffer area, during which time the nesting shrikes shall be monitored; if it is apparent to the trained biological monitor that the shrike may abandon its nest in spite of the buffer zone, Yeager shall work with the biologist to modify these measures to facilitate successful nesting; and (d) these measures do not apply to ground disturbing activities between 1 July and 31 January of a given year; such activities may occur without special regard to shrikes.

*The paragraphs in italics were added to the HCP after further review of the proposed measures to minimize impacts to nesting loggerhead shrikes and a conversation between Service staff and Mark Yeager. The Service believes that maintenance of a 50-foot buffer around a nest, with grading occurring outside that area, would not effectively conserve enough area to allow the successful rearing of nestlings. Because loggerhead shrikes are predators, they would need substantially more area for foraging than would occur within a 50-foot buffer. Also, the HCP proposed that, if the nest seemed about to fail, the biologist would work with Yeager to resolve the problem. The Service contends that detecting imminent failure may not be possible and preventing the failure, once the foraging habitat had been removed would be impossible.*

*In response to these concerns, Mark Yeager agreed to the implementation of the following measures to minimize the potential adverse effects of mining, if nesting occurs at the mine site:*

*All clearing of native shrubs and palo verde shall occur outside of the nesting period of the loggerhead shrike, which is generally from February through June;*

OR

*Clearing during the period between February through June, inclusive, shall occur only after surveys of the area to be included in the phase to be mined have determined that nesting loggerhead shrikes are not present.*

*With the implementation of one of two these measures, the Service believes that potential impacts to the loggerhead shrike would be minimized to the maximum extent practicable.*

D. Mitigation of Impacts to Desert Tortoise

This section identifies measures that will be implemented off-site to mitigate impacts to desert tortoise associated with the development of the Mine Site.

Impacts to desert tortoises shall be mitigated, in part, by the transfer of lands from Catellus ownership to the Bureau. These lands shall (a) occur within either the Fremont-Kramer or Superior-Cronese Critical Habitat Units so that they are also within the known range of MGS; (b) occur within Department-designated Crucial Desert Tortoise Habitat, which is a requirement of the Department; (c) occur within Bureau Category I habitat, which is to be maintained for stable populations and protection of habitat values of desert tortoises and MGS; and (d) occur outside transportation corridors, which is a requirement of the Department.

The land transfer from private to public ownership will ultimately replace up to 100 acres of Bureau-designated Category III habitat that are not intended to be managed for the long-term conservation of tortoises with up to 100 acres of Category I habitat, which will be managed for conservation of tortoises. The southern portions of the Mine Site have been previously affected by mining activities, and most of the site has likely been somewhat affected by the proximity of Interstate 15 and the Stoddard Valley Off-highway Vehicle management Area. Compensation lands are not likely to be similarly affected and are located within areas that have been designated as important to the survival and recovery of tortoises, as identified in the previous paragraph.

Purchase and transfer of these lands to the Bureau shall be governed by the following, non-discretionary measures:

1. Prior to disturbing the initial mining phase, Yeager shall transfer up to 35 acres of compensation land to the Bureau.

2. Prior to beginning subsequent mining phase(s), Yeager shall acquire and transfer compensation lands to the Bureau that would equal or exceed the acreage of the area that would be affected by that phase of the mining, as per Chapter 3, Section A.3.a.

3. Alternatively, Yeager may transfer all 100 acres of compensation land to the Bureau prior to disturbing the initial mining phase, and no additional acreage would be required for development of subsequent phase(s).

E. Mitigation of Impacts to Mohave ground squirrel

A CESA MOU application has been drafted that would result in State authorization to take tortoises and Mohave ground squirrel (MSG) from the subject property. Becky Jones of the Department is currently (September 1997) processing the CESA MOU for this project. Impacts to MGS are considered as part of this HCP, and the measures required to minimize and mitigate impacts to tortoises are also intended to benefit MGS. Compensation lands are required by this HCP to occur within the range of MGS, and Bureau protection of those lands will benefit the species. As such, a total of up to 100 acres of habitat within the range of MGS will ultimately be removed from private ownership and associated threats and be deeded to the Bureau.

F. Mitigation of Impacts to Loggerhead Shrike

No specific off-site, mitigation measures are identified for this species, although the presence of tree species, such as Mohave yucca and Joshua tree (*Yucca brevifolia*), on compensation lands would benefit shrikes occurring in those areas. Thus, insofar as possible, it is recommended that compensation lands support growth of these or other native, desert tree species.

G. Unforeseen Events

1. In the case of unforeseen events that preclude implementation of the measures of the HCP, the FCR shall immediately inform the Service personnel who have functioned as the principal contacts for the Proposed Action; currently, Ray Bransfield or, in his absence, another biologist at the Ventura Fish and Wildlife Office.

2. Unforeseen events shall be considered to fall within one of two categories:

a. Type A events are those which do not significantly affect the outcome of the HCP or the level of take of desert tortoises. Type A events shall be resolved through coordination among staff from the Service's Ventura Fish and Wildlife Office, the FCR, and Yeager. Examples of Type A events could include modifications of survey or burrow excavation procedures, changes in the qualified biologist, or changes in the designated veterinarian.

b. Type B events are those which significantly affect the outcome of the HCP or the level of take of desert tortoises, and which would require formal amendment of the 10(a)(1)(B) permit. Resolution of Type B events shall be initiated through coordination among staff from the Service's Ventura Fish and Wildlife Office, the FCR, and Yeager.

Examples of Type B events could include failure of one or more of the parties to implement its responsibilities as outlined in the Implementing Agreement, an unexpected increase in the number of desert tortoises on the site, or the failure of mitigation measures to reduce the take of desert tortoises.

If a Type B event cannot be resolved through coordination among the parties noted in the previous paragraph, all activities that could result in the take of desert tortoise shall cease until the 10(a)(1)(B) permit is amended. An amendment of this nature may require an additional notice in the *Federal Register*, reissuance of an Environmental Assessment, and reinitiation of the intra-Service consultation.

3. Should any unforeseen event that could result in mortality or injury of desert tortoises occur, all activities that could result in such take shall cease until all hazards to desert tortoises are eliminated and the issue resolved.

## CHAPTER 4

### FUNDING FOR THE HABITAT CONSERVATION PLAN

Money necessary to purchase up to 100 acres of land, or portions thereof for phased mining, shall be provided by Yeager.

Yeager may purchase lands previously approved by the Bureau from the current landowner and have those existing compensation lands serve as mitigation for development of the mine. In this case, Yeager would pay the current landowner an agreed upon price, and Yeager and/or the current land owner would inform the Bureau that up to 100 acres are to be subtracted from the total acreage credited to the current land owner. The Bureau would acknowledge, in writing to the Service, that Yeager has satisfied its compensation land requirements for the development of the site, as identified in this HCP, and the Service would acknowledge in writing to Yeager that applicable phase(s) may be developed.

Alternatively, Yeager may purchase lands and transfer them to the Bureau. Compensation acreage will be the same as impact acreage for a given phase, and will be transferred to the Bureau prior to any ground disturbance on the phase to be developed, which will be confirmed by the Service. For example, if development of the next phase would impact 50 additional acres, Yeager would purchase and transfer those 50 acres to the Bureau before any land disturbance occurs; the Bureau would send a memorandum to the Service; and the Service would inform Yeager that development of those 50 acres may proceed.

It shall be Yeager's responsibility to (a) fence all phases prior to development to prevent tortoises from immigrating into the mining area; (b) hire a qualified biologist to perform the tasks described in Chapter 3; (c) pay any veterinary bills for injured tortoises; and (d) provide sufficient funding to implement all other measures expressly identified in this HCP and the attached Implementing Agreement. The costs of these materials and services shall be determined by Yeager at the time they are required, and shall be paid by Yeager. Prior to initiating grading, Yeager shall submit to a copy of the annual operating budget for the Wildwash mine to the Service. The costs that would not be covered by the SMARA reclamation bond, such as fencing, hiring of a qualified biologist, and veterinary bills, shall be shown as a line item for that year. For the following years, the annual operating budget with HCP line item costs shall be submitted as part of the annual report to the Service.

## CHAPTER 5

### ALTERNATIVES TO THE PROPOSED ACTION

Section 10(a)(2)(A)(iii) of FESA requires that alternatives to the taking of species be considered and that reasons why such alternatives are not implemented be discussed. These alternatives are presented as follows:

#### A. No Action Alternative

If chosen, the No Action Alternative would result in no take of desert tortoise; tortoises would not be displaced from the site, nor would marginally suitable habitat be adversely modified. The 100-acre parcel would continue to be exposed to existing impacts that, if not already, will likely extirpate tortoises from the area over time. These include heavy off highway vehicle (OHV) impacts; use of the site for dumping, target practice, and camping; impacts associated with the proximity of the site to I-15, including roadkill, elevated raven numbers, higher potential for tortoise poaching; etc. No compensation habitat would be purchased and deeded to the Bureau; no manageable acreage would be preserved under this alternative.

#### B. Alternatives Considered But Not Selected for Detailed Analysis

Yeager could purchase aggregate materials from an existing source. Three have been identified, including one at Oro Grande, one in Barstow, and one near the junction of Hodge Road and Interstate 15. Yeager considers this alternative to be economically infeasible. Yeager may ultimately purchase some aggregate materials from commercial providers, but that purchase would be in addition to materials obtained from the Wildwash site. As such, the purchase of aggregate materials would supplement, not replace, materials extracted from the proposed mine.

Yeager could abandon this site and choose to develop another site in a less ecologically sensitive area. This alternative was not selected for detailed analysis because the site, itself, is considered to be less ecologically sensitive compared to many other locations in the region: it occurs adjacent to Interstate 15 and the Bureau's Stoddard Valley Off-highway Vehicle Management Area, both of which have adversely affected biological resources; about 45 acres of the site have already been mined; the site is not located within areas that have been identified by the regulatory agencies as essential to tortoises (Critical habitat, Category I Habitat, DWMA, etc.); and the proximity of this site to the Interstate 15 widening project will predictably minimize the impacts associated with hauling aggregate materials to the point of construction (see next paragraph). This alternative could also require Yeager to purchase additional lands, which they consider to be cost prohibitive.

Yeager may consider mining an existing local mine, such as the Black Angel Mine, which Laye asked about during a phone conversation with LaRue on 29 July 1997. This alternative

was not selected for detailed analysis because, although previously disturbed mine areas, such as the Black Angel Mine located five or six miles to the north, may be available, they do not support the type of aggregate materials required for planned construction (Mark Yeager, pers. comm.). Haul trucks leaving the Black Angel Mine would have to travel about 2.5 miles to the interstate, which, over time, would predictably result in tortoises and other wildlife being crushed along the haul road.

Yeager may develop all 100 acres simultaneously rather than in phases. This alternative was not selected for detailed analysis because it would result in impacts to a larger area than is currently required to meet existing and future, local construction needs. Initial development of about 15 acres would meet existing needs; development of a significantly larger area is not warranted at this time, but future needs could require eventual development of up to 100 acres.

Yeager may develop a deeper excavation pit that would impact less surface area. This alternative was not selected for detailed analysis because the current plan is designed, in part, to reduce impacts to natural storm water runoff; a deeper pit would potentially result in more adverse impacts to downstream areas than would occur under the current plan. Conversely, a shallower pit would impact more surface area, which is not desirable.

Yeager's HCP is being developed because there is no programmatic conservation plan for the region that authorizes the lawful incidental take of tortoises. The Bureau has been overseeing formulation of the West Mojave Coordinated Management Plan (WMCMP) since about 1992. However, there is no guarantee that WMCMP will be completed or that its final form would authorize development of this site; it may only function as a programmatic Section 7 consultation, which would not authorize private development.

## CHAPTER 6

### OTHER MEASURES REQUIRED BY THE U.S. FISH AND WILDLIFE SERVICE

Section 10(a)(2)(A)(iv) of FESA states that the HCP must specify “such other measures that the Secretary may require as being necessary or appropriate for purposes of the plan.” For previous 10(a)(1)(B) permits issued for the desert tortoise (Tierra Madre Consultants, Inc. 1991a), the Service has required an implementing agreement and monitoring program be developed and implemented.

#### A. Implementing Agreement

The Implementing Agreement has been drafted and is attached to this HCP (see Section IV). It identifies each party involved in the implementation of this HCP and reiterates their respective responsibilities.

#### B. Monitoring Program

Yeager will enlist a qualified biologist to monitor the initial mining phase and to provide monitoring reports, as described in Chapter 3, Section A.1.r. Measures identified in Chapter 3, Section A.3. ensure that future phase development would occur with minimal impacts to tortoises and require that the Service, if applicable, be notified prior to any ground disturbance. As such, the pertinent regulatory agencies will have constant feedback on the implementation, successes, and failures of this 10(a)(1)(B) permit.

## CHAPTER 7

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## APPENDICES

Appendix 1. Maps and figures

Appendix 2. Biological resource inventories performed on the site during 1997

Appendix 3. *Guidelines for Handling Tortoises During Construction Projects*

Appendix 4. List of persons contacted to complete these documents

## **Appendix 1.**

### **Maps and Figures**

- Map 1.** Wildwash Sand & Gravel Mine Site: Vicinity Map
- Map 2.** Wildwash Sand & Gravel Mine Site: Locations of Known Desert Tortoise Sign

**Appendix 2.**

**Biological Resource Inventories Performed on the Site During 1997**

### **Appendix 3.**

## **Guidelines for Handling Desert Tortoises During Construction Projects**

## Appendix 4.

### List of Persons Contacted to Complete These Documents

*Ray Bransfield*, U.S. Fish and Wildlife Service, Ventura Fish and Wildlife Office, 2493 Portola Road, Suite B, Ventura, CA 93003, (805) 644-1766. Several phone calls with Yeager and brief meetings with LaRue on 25 July and 17 September 1997 to discuss the planning process.

*Mike DeKeyrel*, Realty Specialist, Bureau of Land Management, 150 Coolwater Lane, Barstow, CA 92311, (760) 255-8700. 25 June 1997 discussion on Bureau's ability to receive compensation lands.

*Tom Egan*, Wildlife Biologist, Bureau of Land Management, 150 Coolwater Lane, Barstow, CA 92311, (760) 255-8700. 25 June 1997 discussion on Bureau's ability to receive compensation lands.

*Scott Eubanks*, Realty Specialist, Bureau of Land Management, 6221 Box Springs Blvd., Riverside, CA 92507, (909) 697-5377. 29 July 1997 discussion on Bureau's ability to receive compensation lands.

*Larry Foreman*, Section 7 Coordinator, Bureau of Land Management, 6221 Box Springs Blvd., Riverside, CA 92507, (909) 697-5387. 25 June 1997 discussion on Bureau's ability to receive compensation lands.

*Becky Jones*, California Department of Fish and Game, 330 Golden Shore, Suite 50, Long Beach, CA 92802, (805) 285-5867. Several phone conversations regarding the CESA MOU for the project.

*Doug Laye*, U.S. Fish and Wildlife Service, Mojave National Preserve Field Office, 222 East Main Street, Suite 102, Barstow, CA 92311, (760) 255-8844. Numerous discussions with Yeager and LaRue concerning the planning process.

*Randy Scott*, San Bernardino County Public Works Group, Planning Department, 385 North Arrowhead, 3rd Floor, San Bernardino, CA 92415, (909) 387-4099. 30 May 1997 discussion on surveys of subject property.

*Dave Showers*, California Department of Fish and Game, 1416 Ninth Street, Sacramento, CA 95814, (916) 653-9779. Discussion on 28 July 1997 regarding CESA MOU for the project.

*Richard Touslee*, San Bernardino County Public Works Group, Planning Department, 15505 Civic Drive, Victorville, California 92392, (760) 243-8245. Discussions in June 1997 on survey findings on subject property.

*Mark Yeager*, M.A. Yeager & Associates, P.O. Box 127, Riverside, CA 92502, (909) 680-4727. Logistical support throughout document preparation.

Signed IA (and any significant drafts such as the one that was noticed in the Federal Register)



# United States Department of the Interior

## FISH AND WILDLIFE SERVICE

Ventura Fish and Wildlife Office  
2493 Portola Road, Suite B  
Ventura, California 93003

November 25, 1997

### Memorandum

To: Regional Solicitor, Pacific Southwest Region, Department of the Interior,  
Sacramento, California (ATTN: Cheryll Dobson)

From: *Acting* Field Supervisor, Ventura Fish and Wildlife Office, Ventura, California

Subject: Implementing Agreement for the Wildwash Sand and Gravel Mine, San  
Bernardino County, California

Attached please find the implementing agreement for an incidental take permit, pursuant to section 10(a)(1)(B) of the Endangered Species Act of 1973, as amended (Act), for the Wildwash Sand and Gravel Mine. I would appreciate your review of this document to ensure that it meets the appropriate legal requirements. For your information, I have also attached the habitat conservation plan and environmental assessment for the proposed action. These documents have also been electronically mailed to Cheryll Dobson of your staff.

The public comment period on the environmental assessment will close on December 18, 1997. I would appreciate receiving any comments you may have by that date. If you have any questions, please contact Ray Bransfield of my staff at (805) 644-1766.

Attachments

*Judy Holman*

