

Low-effect Habitat Conservation Plan
For the Authorized Incidental Take of Desert Tortoise (*Gopherus agassizii*)
From the Proposed 314.6 Acre Joshua Tree Recreational Campground Site in the
Community of Joshua Tree, San Bernardino County, California

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Executive Summary

JAT Associates, Inc. (Proponent) herein provides a Low-effect Habitat Conservation Plan to minimize and mitigate impacts to the federally listed, threatened desert tortoise (*Gopherus agassizii*) on a 314.6 acre site located in the unincorporated community of Joshua Tree, San Bernardino County, California (Appendix A).

The Proponent plans to develop an eco-friendly recreational campground that will improve the environment and the local community. The planned development will restore and protect 300.8 acres of land that has for many years been abused by illegal activities including but not limited to target shooting, dumping and off road vehicle use (OHV). This will be achieved by situating the proposed buildings and pathways on a carefully delineated 13.8-acre portion of the site that specifically avoids the areas of higher-density desert tortoise sign to the greatest extent practicable. The collective area of the footprints of these scattered structures and roads is 13.8 acres. This careful design was achieved with the direct input of Circle Mountain Biological Consultants (CMBC) and representatives of the California Department of Fish and Game (CDFG) and the United States Fish and Wildlife Service (USFWS). The original project design was completely reworked with their inputs. The project will be built in two phases. Phase I will comprise approximately 62% of the total project. The campground will be in operation for 3 to 5 years before Phase II construction begins.

Since project development is adjacent to potential desert tortoise habitat it may be in violation of Section 9 of the Federal Endangered Species Act and no other recourse is available to the Proponent to mitigate impacts (i.e., no federal nexus, West Mojave Plan is not in place), section 10(a)(1)(B) incidental take authorization is being solicited. This Habitat Conservation Plan, pursuant to a site-specific section 10(a)(1)(B) take permit, is designed to minimize and mitigate the possible displacement of desert tortoises and loss of up to 13.8 acres of potential habitat.

The Proponent has already implemented numerous measures to minimize potential impacts to the desert tortoise, including but not limited to, scaling back the project size, redesigning the project to avoid desert tortoise sign, relocating specific structures and so forth. The Proponent further proposes to implement measures to minimize potential impacts during construction and operation, additional measures to mitigate potential impacts, and post-construction measures to minimize residual and indirect potential impacts. To minimize potential impacts to the desert tortoise and its habitat the Proponent will, among other things, complete pre-construction surveys; on-site biological monitoring during construction; conduct conservation awareness programs; appoint a field contact representative to oversee compliance; and meet a schedule of reporting requirements. Additionally, the Proponent will implement measures to protect desert tortoises from potential impacts related to campground development and operation.

It should be noted that the campground construction and operation areas have been specifically designed to be outside of the identified areas of higher-density desert tortoise sign. This will ensure that 300.8 acres of moderately to severely impacted

potential habitat will be restored and protected. The USFWS requires that mitigation is commensurate with the level of impact; therefore the mitigation proposed to meet the statutory issuance criteria is 13.8 acres. The Proponent has chosen to preserve over 95% of the land as part of the project design which includes mitigation and extra conservation. Essentially, less than 4.4% of the land will be developed. This ratio of developed to preserved lands, including mitigation and extra conservation, is an unprecedented 1:21.8. This outcome is the direct result of the collaborative efforts of the USFWS, the CDFG, CMBC and the Proponent and creates the unique opportunity to provide a more significant and much greater conservation package than the traditional mitigation requirement. Furthermore, any redesign or modification of the project as proposed, would require a full review and written approval by the USFWS and the CDFG, per San Bernardino County law.

Finally, the Low-effect Habitat Conservation Plan provides for addressing changed and unforeseen circumstances, describes funding to implement identified measures, discusses alternatives, identifies other measures required by the U.S. Fish and Wildlife Service, lists the literature reviewed for the completion of this and related documents, and lists the persons contacted to complete the documents. This Agreement, if approved as requested in this HCP, shall become effective on the date that the USFWS issues the permit and shall remain in full force and effect for the period of thirty (30) years with additional 10-year extensions requested to ensure that the resident desert tortoises will be cared for in perpetuity. Additional documents drafted pursuant to the section 10(a)(1)(B) permit include a formal request for issuance of the permit and Federal Fish and Wildlife Permit Application Form. An application for a California 2081 Incidental Take Permit for Threatened Species is being sought for State authorization of incidental take.

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1.0 INTRODUCTION AND BACKGROUND

1.1 Overview/Background.

Circle Mountain Biological Consultants (CMBC) prepared this Low-effect Habitat Conservation Plan (HCP) in conjunction with Yacoubian Law Offices, APC and JAT Associates, Inc., which is herein referred to as the “Proponent.” This HCP outlines a conservation strategy that will be implemented by the Proponent to minimize and mitigate potential impacts to the desert tortoise under authority of section 10(a)(1)(B) of the Federal Endangered Species Act of 1973, as amended (FESA). The Proponent’s conservation strategy, in the instant case, will serve to protect the desert tortoises on the property that are regularly subjected to trespasser dumping, shooting and off road vehicle (OHV) use.

The Proponent plans a small (4.4% site coverage), low-impact and eco-friendly campground/resort supporting art and educational, entertainment and recreational activities (the project). Through the use of ecologically sensitive design and “green” building technologies as well as wildlife educational training and materials, the project will provide a unique opportunity for employees, guests and the community to experience the natural desert surroundings while respecting its delicate balance. By rehabilitating the terribly degraded and abused 314.6-acre parcel, the project will heighten public awareness for the threatened desert tortoise and preserve and protect over 300 acres of potential habitat for the species. The Proponent has already implemented numerous measures to minimize potential impacts to the desert tortoise, including but not limited to, scaling back the project size, redesigning the project to avoid desert tortoise sign, relocating specific structures and so forth. The Proponent further proposes to implement measures to minimize potential impacts during construction and operation, additional measures to mitigate potential impacts, and post-construction measures to minimize residual and indirect potential impacts.

Notwithstanding the fact that the project will improve the status quo for the listed species, nevertheless, the Proponent requests issuance of a section 10(a)(1)(B) incidental take permit (ITP) from the U.S. Fish and Wildlife Service (USFWS). The permit will authorize incidental take of the federally listed, threatened desert tortoise (*Gopherus agassizii*) from 13.8 acres of potential habitat in the Morongo Basin portion of the West Mojave Desert.

1.2 Permit Duration.

This Agreement shall become effective on the date that USFWS issues the permit requested in the HCP and shall remain in full force and effect for the period of thirty (30)

years or until termination of the permit, whichever occurs first. Three years prior to the end of the term, the Proponent will have the option to submit a written request to renew the permit for an additional 10-year term. The USFWS will have the opportunity to evaluate the effectiveness of the permit, the performance of the Proponent and make any necessary changes prior to granting the permit renewal. The USFWS will process the permit renewal request provided by the Proponent pursuant to the Code of Federal Regulations (50CFR13.22). The USFWS will provide the Proponent with written notice of the permit renewal/denial not less than one year prior to the end of the 30-year term. Additional 10-year permit renewals would be processed in the same manner. With many assurances provided for by monitoring and reporting, changed and unforeseen circumstances as well as an adaptive management strategy, the 30-year term of this ITP is both appropriate and responsive to the requirements for successful financing of the project. The ability to renew the permit would guarantee that the necessary care, monitoring and protection of the desert tortoises would continue in perpetuity.

1.3 Regulatory/Legal Framework for Plan.

The Federal Endangered Species Act of 1973, as Amended (“Act”), requires all federal agencies to consider listed species in their planning efforts and to take positive actions to further the conservation of these species. Section 9 of the Act prohibits any taking of a listed species. The definition of “take” includes to harass, harm, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in any such conduct. “Harm” in the definition of “take” means an act that actually kills or injures protected wildlife. Section 10 of the Act allows the U.S. Fish and Wildlife Service to approve exceptions to the federal prohibitions against take of a listed species. In the 1982 amendments to the Act, Congress established a provision in Section 10 that allows the “incidental take” of an endangered and threatened species of wildlife by non-Federal entities. “Incidental take” is defined as take that is “incidental to, and not the purpose of, the carrying out of an otherwise lawful activity.” Under section 10 of the Act, the applicant for an “incidental take permit” is required to submit a conservation plan to USFWS that specifies, among other things, the impacts that are likely to result from the taking, and the measures the permit applicant will undertake to minimize and mitigate such impacts, and the funding that will be available to implement those steps.

Similarly, the California Endangered Species Act (“CESA”) is administered by the California Department of Fish and Game (“CDFG”) and prohibits the take of plant and animal species, designated by the Fish and Game Commission as either threatened or endangered in the State of California. Sections 2091 and 2081 of CESA allow the CDFG to authorize exceptions to the state’s prohibition against take of listed species.

1.3.1 *Listed species.* The California Fish and Game Commission listed the desert tortoise as threatened in 1989. The USFWS listed the desert tortoise as “endangered” under emergency listing provisions of the ESA on August 4, 1989. During the following year, the USFWS reviewed the status of the desert tortoise and formally listed the Mojave population of the desert tortoise as “threatened” on April 2, 1990. The “Mojave population” is a scientific designation that represents desert tortoise living north and west

of the Colorado River and includes 30 percent of their range. The USFWS designated 26,087 km of federally protected “critical habitat” for the Mojave population of desert tortoise on February 8, 1994, not including Joshua Tree National Park and the Desert Tortoise Research Natural Area which were already protected. On June 28, 1994, the USFWS approved the “Desert Tortoise (Mojave Population) Recovery Plan” which recommended the establishment of 14 Desert Wildlife Management Areas (DWMAs) in six regional recovery units (U.S. Fish and Wildlife Service 1990a) (Figure 1). In response to these designations, the Bureau of Land Management (BLM) has prepared the Draft Environmental Impact Report/Statement for the West Mojave Plan (U.S. Bureau of Land Management 2003). The project site is within the Joshua Tree DWMA and within the areas covered by the West Mojave Plan.

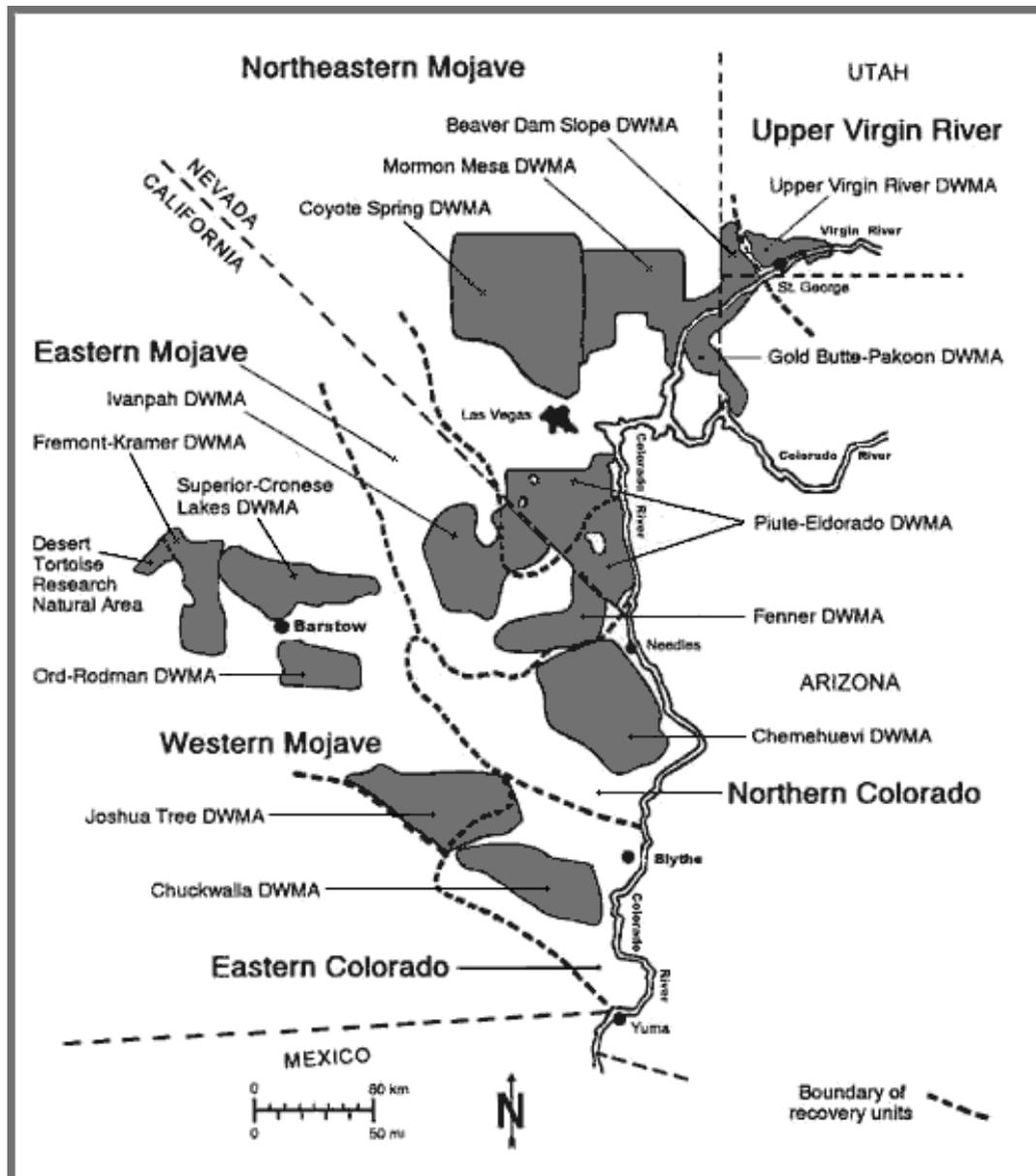


Figure 1. Shown is the portion of the desert tortoise population (Mojave population) that is federally listed as “threatened.” The six recovery units and 14 Desert Wildlife Management Areas (DWMAs) are described in the Desert Tortoise (Mojave Population) Recovery Plan (USFWS, 1994a).

1.3.2 *Qualifications of HCP author.* CMBC is a uniquely qualified consulting firm having conducted the original field studies for the Proponent in 2003 (Circle Mountain Biological Consultants 2003), and having previously completed numerous HCPs for the desert tortoise (see Section 9.0). Three of these HCPs have resulted in issuance of 10(a)(1)(B) permits. These three included the first (Tierra Madre Consultants 1993), second (Tierra Madre Consultants, Inc. 1994), and fourth (Circle Mountain Biological Consultants 1997a) permits authorizing the incidental take of desert tortoises in California. Between 1998 and 2004, Ed LaRue, one of the Principals of CMBC, served as the Bureau of Land Management’s wildlife biologist on the West Mojave Plan,

which set up the framework for incidental take and conservation of desert tortoises throughout the 14,600 square mile planning area (U.S. Bureau of Land Management 2003). The Proponent's HCP is based, in part, on these and other documents listed in Section 9.0 (i.e., particularly Circle Mountain Biological Consultants 2004).

The Proponent, in consultation with CDFG, USFWS, and CMBC, developed the conservation strategy given herein. Once finalized, the HCP and supporting documents will be sent to USFWS's Ventura Field Office (Brian Croft and Jen Lechuga) and the CDFG's Palmdale Field Office (Becky Jones). CMBC personnel (Ed LaRue, Sharon Dougherty), the Proponent (Abel Villarreal and John Simpson), and legal counsel (Talin Yacoubian) will remain available to USFWS and CDFG staff to provide any additional information and to ensure that incidental take permits are issued in a timely manner.

1.3.3 *Determination of low-effect HCP.* Given the parameters of the proposed project, the Proponent requested that USFWS consider this project in the context of a "low-effect" HCP. On May 6, 2005, Ms. Judy Hohman of USFWS confirmed that the Proponent's project qualifies as a "low-effect" HCP. The following information is taken from U.S. Fish and Wildlife Service, 1996. The "low-effect" HCP category is defined as, those projects involving: (1) minor or negligible effects on federally listed, proposed, or candidate species and their habitats covered under the HCP; and (2) minor or negligible effects on other environmental values or resources. "Low-effect" incidental take permits are those permits that, despite their authorization of some small level of incidental take, individually and cumulatively have a minor or negligible effect on the species covered in the HCP. Factors relevant to the determination that an activity is a "low-effect" activity include, but are not limited to, the effect of the activity on the distribution or the numbers of the species. USFWS must consider each HCP on a case-by-case basis in determining whether it belongs in the "low-effect" category, taking into account all relevant factors including biological factors. The determination of whether an HCP qualifies for the "low-effect" category must be based on its anticipated impacts *prior to* implementation of the mitigation plan. The purpose of this category is to expedite handling of HCPs for activities with inherently low impacts, not for projects with significant potential impacts that are subsequently reduced through mitigation programs. However, this determination should factor in actions taken by the applicant to avoid take, such as conducting activities during specific times to avoid the nesting season or by relocating project locations. (U.S. Fish and Wildlife Service 1996).

"Low-effect" HCPs and permit applications often involve a single small land or other natural resource owner and relatively few acres of habitat. The impacts of such projects on federally listed species frequently are minor or negligible and the applicants often do not have the resources to withstand long delays. *Consequently, an important guiding principle of the handbook is that permit application processing requirements for low-effect HCPs, as defined above, will be substantially simplified and permit issuance for such HCPs will be expedited to the maximum extent possible, consistent with Federal law.* (U.S. Fish and Wildlife Service 1996, *emphasis in original text*).

This will be accomplished by: (1) establishing clear processing standards for all HCP permit applications; (2) eliminating or standardizing section 10 documents for “low-effect” projects, wherever possible; (3) eliminating unnecessary review procedures; (4) categorically excluding “low-effect” HCPs from NEPA requirements; and (5) utilizing other techniques described throughout the handbook. (U.S. Fish and Wildlife Service 1996).

This project qualifies as “low-effect” HCP due to the negligible impacts to desert tortoises, desert tortoise habitat, and the human environment (pursuant to 40 CFR 1508.27) by constructing campground facilities on not more than 13.8 acres of land where there is no desert tortoise sign and possibly never was habitat. Surveys indicate that the HCP boundary appears to have a low number of tortoises using the area. In addition, this project is not located in any critical habitat. The nearest critical habitat area is located 15 miles to the east-southeast in the Pinto Mountains.

1.4 Plan Area.

The 314.6-acre site (APN: 605-151-03) is located in San Bernardino County, California, in the community of Joshua Tree. (See Figures 1, 2 and 3 in Appendix A.) The site is located immediately north of Sunflower Road, between Sunever and Rice Roads, and includes parts of Bunker Mountain. Elevations on the site range from 744 meters to 831 meters (2,440 to 2,720 feet), with Bunker Mountain rising to the northwest from an alluvial flat at its base.

Importantly, not all of the 314.6 acres are proposed for development. Proponent estimates that these scattered new buildings, roadways, trails, and parking areas would directly impact no more than 13.8 acres on the subject property (See Figures 2 and 4, revised proposed site plans in Appendix A). The Proponent’s original development plans (see Figure 1 original site plan in Appendix A) were significantly scaled down and modified in October 2003, to realize mitigation measures, pursuant and in response to recommendations made by Becky Jones of CDFG. Roadways and facilities locations were rearranged to be located outside of areas of higher-density sign and to take advantage of existing areas of disturbance, such as roadways and heavily destroyed cove areas. Further changes and adjustments were made to the plans in August of 2004 following a collaborative meeting attended by USFWS, CDFG, CMBC, Bill Warner of Warner Engineering and the Proponent. In general, the proposed development was reduced in size and relocated into areas of the site that did not contain desert tortoise sign while incorporating additional minimization and mitigation efforts such as a comprehensive fencing strategy, the use of culverts and additional building relocations, among others.

1.5 Species to be Covered by Permit.

Authorized incidental take is being sought for the desert tortoise (*Gopherus agassizii*), which is federally listed and State listed as threatened.

2.0 ENVIRONMENTAL SETTING/BIOLOGICAL RESOURCES

2.1 Environmental Setting.

The 314.6-acre site is located in the southeastern portion of the West Mojave Desert in the Morongo Basin, midway between Yucca Valley and Twentynine Palms. As described in the next few sections, site location and the local climate have affected common and uncommon plant and animal species occurring on-site and in the region.

2.1.1 *Climate.* The local climate is typical of the West Mojave Desert where there is limited rainfall, cold temperatures in the winter, and high winds throughout much of the year. The subject property is located far enough to the east that it receives a bimodal rainfall pattern of winter *and* summer precipitation. The local climate is also affected by the proximity of the San Bernardino Mountains to the west and Little San Bernardino Mountains to the south, which likely results in somewhat more precipitation than many areas in the West Mojave.

2.1.2 *Topography, geology.* The southern-most portions of Bunker Mountain occur within the western and northern portions of the subject property. The elevation of the highest peak, which is located on the west-central portions of the site, is 2,720 feet. Central, southern, and eastern portions of the site are gently sloping alluvial fans spreading southeast from Bunker Mountain. The lowest elevations, of 2,440 feet, occur near the southeast corner and near the northeast corner where several intermittent blue-line streams converge and exit the site.

2.1.3 *Hydrology, streams, rivers, drainages.* Several intermittent blue-line streams run west-to-east through the site (see Figure 2 in Appendix A). None supports riparian, streamside growth, although the band of vegetation associated with the watercourses is denser in places to the east (See Exhibit 7 in Appendix B). Vegetation in the wash areas differed only slightly from that in surrounding areas, in that a few wash-associated species were present in limited numbers. These included catclaw acacia (*Acacia greggii*), cheesebush (*Hymenoclea salsola*), thick-leaf ground-cherry (*Physalis crassifolia*), and a few smoke trees (*Psoralea arguta*), which were found in the northwestern portion of the property, in the vicinity of Golden Avenue.

2.1.4 *Vegetation.* The following is taken from Circle Mountain Biological Consultants 2003. The plant community present on the site is best characterized as a creosote bush series (Sawyer and Keeler-Wolf 1995), with creosote bush (*Larrea tridentata*) the dominant plant. Other perennials present include cheesebush (*Hymenoclea salsola*), senna (*Senna armata*), paper-bag bush (*Salazaria mexicana*), indigo bush (*Psoralea schottii*), silver cholla (*Opuntia echinocarpa*), pencil cholla (*O. ramosissima*), rayless encelia (*Encelia frutescens*), and bush sunflower (*E. virginensis*). Vegetation at higher elevations, on the rocky slopes and hilltops of Bunker Mountain was somewhat different from that found on the flats. Several species associated with rock outcrops or foothill areas were first detected in these areas, and

included California buckwheat (*Eriogonum inflatum*), Pima rhatany (*Krameria erecta*), brittlebush (*Encelia farinosa*), and fagonia (*Fagonia laevis*).

Due to late summer rains in 2003, several fall annuals were abundant during the August survey, particularly chinch weed (*Pectis papposa*) and six-weeks grama (*Bouteloua barbata*). Other annual plant species detected included desert dandelion (*Malacothrix glabrata*), chia (*Salvia columbariae*), plicate coldenia (*Tiquilia plicata*), odora (*Porophyllum gracile*), desert filaree (*Erodium texanum*), and purple phacelia (*Phacelia crenulata*), among others. Some non-native grasses and other weedy species were also present, including split grass (*Schismus* sp.), fiddleneck (*Amsinkia tessellata*), tansy (*Descurainia pinnata*) and wild turnip (*Brassica tournefortii*). A few Joshua trees (*Yucca brevifolia*) were seen along the base of the Bunker Mountain, at slightly higher elevations than elsewhere on the alluvial flats. Many of these trees were dead.

2.1.5 *Wildlife.* Wildlife species detected on the site during August 2003 surveys include 7 reptile, 16 bird, and 8 mammal species (Circle Mountain Biological Consultants 2003, see list in Appendix B). Common Mojave Desert species detected included mourning dove, verdin, black-tailed sparrow, phainopepla, lesser nighthawk, common raven, house finch, western whiptail, desert iguana, zebra-tailed lizard, desert horned lizard, side-blotch lizard, black-tailed hare, Audubon's cottontail, coyote, kit fox, antelope ground squirrel, bobcat, desert tortoises and kangaroo rats (detected by burrows and tracks).

2.1.6 *Existing land use.* During the 2003 survey evidence of human disturbance was very heavy in some locations, but light in other parts of the site (Circle Mountain Biological Consultants 2003). Table 1, below, summarizes the amount of disturbance noted on the flats. Vegetation on some portions of the site was very sparse, where target shooting has been prevalent. Large numbers of derelict cars, appliances and other trash have been dumped in these areas and used as targets. (See Exhibits 5 and 6 in Appendix B.) Little disturbance was observed higher on the rocky mountainsides and hill tops, although targets have been propped in the rocks at the base of the mountain in many places, and broken glass, spent bullets, and other shooting debris are abundant at these locations. Human disturbance on the remainder of the flatter portions of the site is much lighter, and some areas of relatively intact vegetation remain. Few non-native plants are present in the less disturbed areas. It is important to note that the human disturbance is cumulative and increasing, the harm to the desert tortoise is ongoing and very violent in nature due to almost constant shooting, dumping and OHV use.

Table 1. Human Disturbance Tallied on Flats

Disturbance	OHV	Shotgun	Road	Skeet/Target	Dump*	Rifle	Dog	Trail
Total Incidents Observed	1179	114	102	79	54	30	19	3
# per 100 feet of transect	0.408	0.039	0.035	0.027	0.018	0.010	0.006	0.001

* Includes some very large dumpsites, with abandoned cars, appliances, etc.

During CMBC’s surveys of the site, a group of three dogs was twice observed on the property, once in pursuit of a black-tailed hare on the afternoon of 25 August, and again apparently hunting on the morning of 27 August 2003. Several of the desert tortoises observed during surveys had damage to the gular area of their plastron, which is characteristic of animals that have been mauled by dogs. Free-ranging or feral dogs appear to be a significant source of disturbance to desert tortoises in the vicinity.

Adjacent land uses include one single-family residence immediately east of the southeast corner of the site, and several at the eastern end of Golden Avenue, west of the northwest corner. A large water tank and access road are present on the hilltop adjacent to the northeast corner of the site. All other adjacent areas are undeveloped, and adjacent roads are unpaved.

2.2 Species of Concern in the Plan Area.

The species that could potentially be affected by proposed development is the desert tortoise.

2.2.1 *Desert tortoise.* Desert tortoises occur in creosote bush scrub and saltbush scrub communities throughout the region, where they seek shelter in burrows excavated in firm soil, typically at the bases of shrubs. Threats leading to its listing included habitat fragmentation such as residential and agricultural development of historic habitat; impacts from 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 life history information is provided in the following references (see Section 9.0): U.S. Bureau of Land Management 2003; Woodbury and Hardy 1948; Burge and Bradley 1976; Burge 1978; Luckenbach 1982; Berry 1984; Weinstein et al. 1987; Hovik and Hardenbrook 1989.

In a 2002 report on “The Status of the Desert Tortoise in California Desert”, Rebecca Jones, of the CDFG stated that, “the desert tortoise population in California appears to be in rapid decline in the West Mojave, East Mojave and Colorado deserts. Even populations that were thought to be stable or increasing in the early 90s are now also in decline” (Jones, 2002). Twenty years or more of data from long-term desert tortoise monitoring plots within the recovery units show increasing threats that are

exacerbated by the rapid expansion of urbanization in desert areas, especially in the Western Mojave DWMA. These threats include: intentional shooting, harassment and harm by free-ranging and feral dogs, Upper Respiratory Tract Disease (URTD) and prevalence of new diseases such as herpes virus and shell necrosis. Western Mojave study plots since 2000 show increasing signs of vandalism such as burrow excavation, shooting, and mutilation of shells and appendages by dog attacks (Jones 2002).

Population declines leading to the listing of the desert tortoise were as high as 90 percent in some populations of what is now the Western Mojave DWMA. Since the listing in 1994 and subsequent monitoring surveys in 1996 and 1997, the desert tortoise population within the Desert Tortoise Research Natural Area has declined by 50 percent. Jones reports similar and worse losses from study plots throughout the 6 western Mojave recovery units. Jones concludes that, "Populations are so low in some areas, they should be examined to determine if populations are still viable". Within Joshua Tree National Park, biologist Amy Fesnock, reports that there is currently an "outbreak of upper respiratory tract disease" and populations of desert tortoise are in decline although the rate and degree of decline is undetermined (Amy Fesnock, biologist, Joshua Tree National Park (JTNP), CA, personal communication 08/03/05.). She has observed some cutaneous dyskeratosis of shells but herpes virus is new in the wild population and its impact within JTNP is undetermined. Also, attacks by feral dogs are a severe problem in the Sand Hill study plot in 29 Palms Marine Corps Air Ground Combat Center (Fesnock 2002).

The federally threatened desert tortoise is known to occur throughout the region surrounding the proposed campground. In 1980, maps produced by the Bureau of Land Management indicate that the campground is located in an area that supported between 20 and 50 desert tortoises per square mile (U.S. Bureau of Land Management 1980), and was designated as Category III desert tortoise habitat. The site is not found within regional areas that have been identified as essential to the survival of the species; the nearest Critical Habitat area is located to the east-southeast (Pinto Mountains Unit) (U.S. Fish and Wildlife Service 1994b).

It should be noted that the findings of desert tortoise sign on the subject property were well below the 1980 BLM indications for that area. This is likely due in whole or in part to the destructive activities that regularly occur on the site. The data shows that only 6 live desert tortoises were found in half of one square mile (a rate of 12 per square mile). This is between 40 and 60 percent of the expected findings per 1980 BLM indications but is consistent with range wide declines over the last six years for expected densities within the Western Mojave DWMA.

CMBC (2003) reported the following information specifically for the site. Six desert tortoises were seen on the site either in burrows or aboveground, foraging. Table 2, below, lists all sign detected. Figure 2 in Appendix B shows the locations of all detected animals and sign. Most of the desert tortoise carcasses were found on the rocky hillsides overlooking the flats. It is likely that ravens or other predators or scavengers moved many of these carcasses to the rock outcrops from the nearby flats. The highest concentration

of other sign was found in the northeastern parts of the site, with additional concentrations along the main wash that runs northeast through the central portion of the site.

Table 2. Summary of Desert Tortoise Sign Detected

DESERT TORTOISE SIGN	AMOUNT
Adult Desert Tortoise	6
Subadult Desert Tortoise	0
Total Number Desert Tortoises	6
Adult Desert Tortoise Carcass	9
Subadult Desert Tortoise Carcass	2
Juvenile Desert Tortoise Carcass	3
Total Number Carcasses	14
Adult Desert Tortoise Burrow	32
Subadult Desert Tortoise Burrow	5
Total Number Burrows	37
Adult Desert Tortoise Scat, deposited this year	164
Subadult Desert Tortoise Scat, deposited this year	56
Adult Desert Tortoise Scat, deposited before this year	25
Subadult Desert Tortoise Scat, deposited before this year	11
Total Number Scat	256
Adult Desert Tortoise Tracks	1
Subadult Desert Tortoise Tracks	1
Total Sets Of Tracks	2

In August 2003, based on the surveys showing the amount and location of the sign present, CMBC extrapolated that at least seven adult desert tortoises, two or more subadult animals, and an unknown number of juvenile desert tortoises were expected to be resident on the site.

2.2.2 *Plant Species of Concern.* No special-status plants are known to occur on the subject property, nor is coverage being solicited for any plant species at this time.

3.0 PROJECT DESCRIPTION/ACTIVITIES COVERED BY PERMIT

3.1 Project Description.

The 314.6-acre site (APN: 604-151-03) is located in San Bernardino County, California, in the community of Joshua Tree (see Appendix A, Figure 3). The site is located immediately north of Sunflower Road, between Sunever and Rice Roads, the northern parts of which include Bunker Mountain. Elevations on the site range from 2,440 to 2,720 feet (744 to 831 meters), with Bunker Mountain rising to the north and northwest from an alluvial fan at its base.

The Proponent plans a campground supporting recreational facilities. The project will be built in two phases. Phase I will constitute approximately 62% of the total

project, and will be comprised of 11 private tee-pee tent campsites, therapeutic salt water pools, a fitness center, massage treatment rooms and a reception/restaurant building. The campground will be in operation for 3 to 5 years before Phase II construction begins. Phase II will be comprised of 11 additional private tee-pee tent sites, a bunkhouse for additional lodging, expansion of the spa area, a photo studio, stables, an outdoor theater, a general store, a meeting hall, a dining room, a photo gallery, ranger's station, maintenance buildings, and a greenhouse. Table 1 provides acreage for various components of the two phases.

Table 3. Impact Acreage Associated with the Proposed Project

Total Building Area
Phase I: 51,971 sq. ft.
Phase II: 90,332 sq. ft.
Total: 142,303 sq. ft.
Total Roads, Trails and Parking Area
Phase I: 324,400 sq. ft.
Phase II: 135,600 sq. ft.
Total: 460,000 sq. ft.
Percentage of site to be developed
Buildings: 1.04% (3.27 acres)
Roads, Trails & Parking: 3.36% (10.56 acres)*
Total: 4.4% (13.83 acres)

*This acreage is larger than anticipated since roads and trails will follow existing tracks where possible.

Importantly, site plans were significantly scaled down and modified following an October 2003 meeting on-site with Sharon Dougherty of CMBC, Proponent, and Becky Jones of CDFG. In response to that meeting, roads and trails were relocated out of washes, the main access road was realigned with an existing road to minimize impacts, and campground facilities were relocated to places that are already significantly degraded by dumping, shooting, and other illegal activities. For the most part, these areas were devoid of vegetation and desert tortoise sign and are so degraded that the habitat is marginal, at best. Further modifications were made following the August 2004 meeting in Pasadena, where additional minimization and mitigation efforts were explored and implemented into the plans.

At completion of Phase II, the Proponent anticipates a maximum of 200 persons on-site, including employees and guests. The projected daily average for Phase I is 75 persons, and for Phase II is 150 persons. Vehicle use will be restricted to the main entrance road leading to the parking area. Trail use within the campground will be limited to pedestrians, electric golf carts, mountain bikes, horses, and by service and emergency response vehicles, when necessary.

3.2 Activities Covered by Permit.

All impacts of the proposed project that are covered by the 10(a)(1)(B) permit will be restricted to the 314.6-acre subject property. Coverage is not sought for any pipelines, reservoirs, or other ancillary facilities that would be located outside the subject

property. Construction activities will be phased, so that about 62% of the impact will occur during Phase I development following permit issuance. The remaining portions of the site will be developed in three to five years, depending on several factors (for phasing see Appendix A, Figure 4). Proponent anticipates that not more than 13.8 acres will be developed for campground construction and operation. Please note that these 13.8 acres were carefully delineated with the aid of USFWS and CDFG as areas devoid of vegetation and desert tortoise sign and are so degraded that the habitat is marginal, at best. The covered activities include:

Activities associated with construction of Phase I and II of facility:

- Earthmoving – surveying, clearing, digging, trenching, grading, berming, watering for dust control, etc.
- Heavy Equipment Use – tractors, cranes, jackhammers, compactors, delivery trucks, etc.
- Construction – installing fencing, erecting buildings, storing/transporting/using of equipment and materials, workers arriving/departing parking areas by car, moving desert tortoises out of harms way, etc.

Activities associated with ongoing use and maintenance of facility:

- Staff – maintenance/emergency vehicle operation, monitoring/patrolling by foot/bicycle/horse/golf cart, arriving/departing parking lot by car, truck deliveries, refuse and re-cycling collection/sorting/storing/removal, washing/cleaning/repairing/operating of machines and equipment, repairs and maintenance of landscaping/roads/trails/fences/buildings/grounds, etc.
- Guests – walking, hiking, bicycling, horse back riding, golf cart operation, exercising, swimming, dining, taking classes, photography, shopping, spa services, attending a performance or event, etc.

Enhancement and Long-term Management of Undeveloped Land:

- Land Rehabilitation – collecting/sorting/storing/transporting debris, sandblasting graffiti from boulders, planting/clearing vegetation, etc.
- Monitoring – patrolling, data collection, reporting, etc.
- Maintenance – fence/trail/road repairs, culvert and vertical mulching maintenance, raven control activities, etc.

The Proponent anticipates potentially having a well on the site (within the 13.8-acre development site) to accommodate some of their water needs.

Section 5.4 identifies numerous measures that will be implemented by the Proponent to minimize impacts during campground construction and operation.

4.0 POTENTIAL BIOLOGICAL IMPACTS/TAKE ASSESSMENT

4.1 Direct, Indirect, and Cumulative Impacts.

On a regional scale, direct impacts of campground construction are considered minimal to desert tortoise conservation and recovery. The subject property is not found within regional conservation areas that have been identified as essential to the survival

and recovery of the species. It is located approximately 15 miles west of the Pinto Mountain Critical Habitat Unit, which was delineated in 1994 by USFWS (U.S. Fish and Wildlife Service 1994b). Nor is the site found within any conservation areas identified in the Draft Environmental Impact Report/Statement for the West Mojave Plan (U.S. Bureau of Land Management 2003). Rather, the subject property is found within the Incidental Take Area identified for San Bernardino County in the West Mojave Plan.

On a local scale, the campground is proximate to existing, single-family residential development in the Copper Mountain Mesa area. However, fragmented habitats in the Copper Mesa area still support relatively good numbers of desert tortoises (Circle Mountain Biological Consultants 1997b, U.S. Bureau of Land Management 2003). During the 2003 survey, CMBC found 6 desert tortoises, 37 burrows, and more than 250 fresh and older scat (see Figure 2 in Circle Mountain Biological Consultants 2003, Appendix B). The sign was mostly distributed on a southwest-northeast axis through the flatter portions of the site, where desert tortoises are somewhat more vulnerable than those in mountainous areas.

Importantly, in October 2003 in response to input from CDFG (Becky Jones), the Proponent modified the development footprint to minimize and mitigate direct impacts to desert tortoises. This resulted in situating development along several existing roads and in areas where dumping and on-going habitat degradation are prevalent. Further modifications were made to the plans to include additional minimization and mitigation efforts following the August 2004 meeting in Pasadena.

If the entire 314.6-acre site were developed, based on CMBC's 2003 survey information, construction could affect at least six adult desert tortoises, and possibly two or more subadult animals, and an unknown number of juvenile desert tortoises. However, development will be limited to approximately 13.8 acres in areas where there is no desert tortoise sign and possibly never was habitat. As such, direct impacts to desert tortoises will likely be negligible.

Native biological resources would be removed from construction areas where pad sites are graded, roadways are built, etc., which are examples of direct impacts. Indirect impacts are those adverse effects that could occur after phased construction is complete. One of the main differences between direct and indirect impacts, then, is the timing of the impact; direct impacts occur at the time of construction, whereas indirect impacts usually occur in the future following completion of phased construction.

Foreseeable indirect impacts include introduction of domestic pets into the natural environment. Operating a new campground in the area may attract ravens, coyotes and other wildlife if new food and water sources are created. These ravens may become opportunistic predators on young desert tortoises occurring on undeveloped portions of the site and in adjacent areas. All of these potential impacts have been considered and thoughtful resolutions have been implemented into the operating policies of the project. While well-behaved dogs will be allowed to enter and stay at the facility, owners are required to maintain them on a leash when outside of their (desert tortoise-impermeable)

fenced campsites. With the introduction of more people to the area of the campsite, the use of signage in key locations (i.e., parking lot, perimeter fence line, at each campsite) provides a unique opportunity to heighten desert tortoise awareness. In addition, wildlife training for all staff members and construction workers and a variety of wildlife educational materials made available to guests will help to create an atmosphere of respect for wildlife that is ultimately the key to their survival. Raven occurrences will be monitored regularly. The Proponent will utilize low to the ground lighting and all together avoid light polls, which could serve as raven perch locations. If necessary, Proponent will obtain salvage permits to allow for raven removal.

The cumulative impacts of this minimally invasive project on the species favor the ongoing survival of the desert tortoise at this location that otherwise, if left vacant, would leave the desert tortoises vulnerable to persistent and ongoing threatening and destructive activities. Campground construction is considered to have minimal growth-inducing impacts. Rather, the campground would accommodate recreational needs of an increasing urban population in the Morongo Basin, and provide non-motorized recreational opportunities in a more structured, regulated manner. Appropriate management, implemented as envisioned, will allow for the protection of about 300 acres of potential desert tortoise habitat on the undeveloped portions of the site. Perimeter fencing, increased human presence, desert tortoise awareness programs, etc. will eliminate illegal activities that would have eventually extirpated desert tortoises from the site (i.e., dumping, shooting, off-road recreational vehicle activities, etc.).

The property where the project will be located is in a scarcely populated area of north Joshua Tree. The northern property line abuts a large area of BLM land as well as five 5-acre vacant parcels that are privately owned and zoned RL. The southern, eastern and western bordering properties are all vacant, privately owned parcels (zoned RL) with the exception of 2 existing residences at the present time. One residence is located adjacent to the southeast corner of the property on the eastern perimeter and another is located adjacent to the northwest corner on the western perimeter. Due to the limited utilities currently available to this area and some challenging geographical characteristics, additional development will likely proceed at a slower rate than other surrounding areas with greater infrastructures in place.

4.1.1 *Potential take: Wildlife species.* Take is defined in Section 3(18) of FESA as harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in any such activity. Harm is further defined to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing essential behavior patterns, including breeding, feeding, or sheltering (50 CFR 17.3). Harass is defined as actions that create the likelihood of injury to listed species to such an extent as to significantly disrupt normal behavior patterns which include, but are not limited to, breeding, feeding, or sheltering.

The Proponent is seeking the issuance of a 10(a)(1)(B) permit that would authorize the eventual development of up to 13.8 acres of lands adjacent to potentially occupied desert tortoise habitat. Although very unlikely, desert tortoises could be

inadvertently killed if protective measures are not implemented; unauthorized “take” would be in violation of Section 9 of FESA. According to the survey conducted in 2003, 6 live desert tortoises were identified on the property. However, none were located on the 13.8 acres to be developed. While the current number of desert tortoises is unknown, it is likely to be similar or less, based on current trends in the area and the fact that severely destructive activities continue to occur on the site.

It is likely that no desert tortoises will be handled or accidentally killed during authorized activities. However, as a contingency, the Proponent asks that the take limits be: (a) not more than thirty-one desert tortoises may be captured and relocated (assuming that relocation may be needed approximately once per year of the permit term) and (b) not more than four desert tortoises accidentally killed or injured/wounded during the permit term of 30 years.

As a minimization measure, a Service-approved biologist will be called upon to move a desert tortoise (if absolutely necessary) out of harm’s way to avoid harm or mortality to the individual animal. All desert tortoises shall be handled by a USFWS-authorized biologist and according to the most current Desert Tortoise Council’s handling guidelines (Desert Tortoise Council 1999). This measure is not expected to result in jeopardy of the species and we anticipate that the benefits will out weigh any adverse effects to the species. There have been cases where a single "problem" desert tortoise has been handled on numerous occasions so that the stated capture/harassment limit was in danger of being reached. In such cases the biologist has chosen not to handle subsequent desert tortoise(s) because the proponent is nearing the harassment limit for the project, when in fact the tortoise(s) should have been moved from harm's way.

If the incidental mortality take limit identified in the USFWS’s intra-Service biological opinion and permit is met, activities posing a risk to the desert tortoise shall cease or be modified and the Proponent shall meet with the USFWS to discuss the reasons for take and modify the measures as necessary to avoid any additional take. Under no circumstances shall the take limit be exceeded without prior approval of the USFWS. "Prior approval of the USFWS" may entail amendment to the HCP.

4.1.2 *Anticipated impacts: Plant species.* No rare plant species have been identified on-site, nor does the Proponent ask that any sensitive plant species be covered by the 10(a)(1)(B) permit associated with this HCP.

4.2 Beneficial Impacts.

Most importantly, there are some clear *beneficial impacts* associated with site development. As documented in CMBC (2003), there are extensive areas within the proposed HCP boundary of illegal dumping, shooting, and recreational vehicle activity. With the assistance of CMBC, the USFWS, and the CDFG, the Proponent redesigned the project to situate developed areas where direct and indirect impacts would be negligible. The remainder of the site (300.8-acres) will be cleaned up, restored and protected forever. All destructive and illegal activities that have been occurring will be eliminated. The

project will serve as a model for thoughtful eco-sensitive development in an environmentally abused and unprotected area. The Proponent will also introduce an extensive educational program designed to inform its employees and guests regarding the desert tortoise and the protection of its habitat. Additionally, San Bernardino County law ensures that the project as described herein could not be altered or modified without written approval from the USFWS and the CDFG.

5.0 CONSERVATION PROGRAM: INCLUDING MEASURES TO MINIMIZE AND MITIGATE IMPACTS

5.1 Biological Goals, Objectives, and Adaptive Management.

The Proponent has developed the HCP pursuant to the following Biological Goals and Objectives:

Management of Indirect Threats to the Desert Tortoise on the Parcel

Goal 1: Reduce or eliminate the presence of desert tortoise predator subsidies on the parcel.

Objective 1: Eliminate raven perches at the project site and sanctuary (300.8-acres) by utilizing low to the ground lighting and perch spikes where necessary so that artificial raven perching sites are practically eliminated. This threshold is achieved when routine monitoring of raven activity documents that 80 percent of the observed raven perches are on natural features as opposed to artificial perches.

Adaptive Management: If routine monitoring documents that artificial perch sites are over the threshold, the source of the problem will be investigated by staff and the necessary repairs or upgrades to facilities will be made.

Goal 2: Reduce or eliminate the presence of litter on the parcel.

Objective 1: Maintain the parcel so that no uncontained litter is found during routine weekly monitoring of the campground.

Adaptive Management: If uncontained litter is found during daily collection cycles it would be removed and the monitor would research the source of the problem to develop and implement adaptive measures. These adaptive measures may include increasing collection cycles from campsites as well as dumpster bins so that they never reach capacity, educating staff and guests as needed about not leaving food in coolers, closed plastic containers, or bags unattended at their campsites, reinforcing unlocked trash collection sites, and providing guests with lockable pet dishes that are too heavy for a raven to lift, or which are locked to the ground.

Management of Direct Threats to the Desert Tortoise on the Parcel

Goal 3: Reduce or eliminate depredation by ravens.

Objective 1: Maintain the parcel so that no common raven nests are present at any given time. This threshold is achieved when routine monitoring observes no nests within the campground or sanctuary area.

Adaptive Management: The Proponent will obtain a qualified biologist holding USFWS migratory bird depredation permits and CDFG scientific collection permit, to allow for raven and raven nest removal, as needed.

Goal 4: Eliminate depredation by dogs.

Objective 1: Require that guests bringing a dog onto the property maintain their pet on a leash or within their desert tortoise-exclusion fenced campsite. This threshold is reached when no desert tortoises are harassed or harmed by a guest's dog.

Adaptive Management: If a guest intentionally or otherwise allows their dog outside of their individual desert tortoise-exclusion fenced campsite without a leash or takes their dog on a leash into the desert tortoise sanctuary area they will be asked to leave and/or be barred from returning as management sees fit. All guests arriving with a pet will be required to sign a written statement at the time of registration, acknowledging that they are aware of the presence of desert tortoises on the site and are willing to comply with the policies regarding pets.

In the event that a desert tortoise is taken by a guest's dog, a USFWS approved biologist will document and report the incident to the USFWS and additional adaptive measures will be determined between the USFWS and management so that the threshold of fewer than 4 take (mortalities) occur over the permit period of 30 years.

Goal 5: Reduce or eliminate the possibility of injury or mortality of the desert tortoise during construction and operation of the campground facility.

Objective 1: Implement minimization and avoidance measures during construction and operation of the campground facility with a threshold of having no desert tortoises wounded or killed.

Adaptive Management: Minimization measures include having a USFWS approved biological monitor on site during construction and a USFWS approved biological monitor on call at all times during operation of the facility in the event that a desert tortoise needs to be removed from harm's way. If the threshold of two injuries or deaths is met, or if a "problem" desert tortoise requires multiple incidents of removal or the 15th desert tortoise is captured/harassed, minimization and avoidance measures would be evaluated to determine areas of weakness and ineffectiveness. The USFWS approved biologist would initiate discussions with USFWS and CDFG to develop more effective measures. The possibility of marking "problem" tortoises for monitoring may be considered.

Objective 2: Eliminate mortality due to vehicle crushing by guests and staff by enforcing reduced speed limits within the campground and parking areas to 10 mph with a threshold of less than three violations documented by personnel per individual guest and less than two violations by staff members.

Adaptive Management: If personnel document that the threshold for violating the speed limit has been met by a guest, management shall deliver written notice that the subsequent violation will result in eviction and barring from the facility. If the threshold for a staff member is met, it would be documented in their personnel file and employment probation or termination could occur.

Objective 3: Use desert tortoise-exclusion fencing and signage around the access road, parking lot, and entrance gate, so that no desert tortoises would be injured or killed by vehicles arriving or departing from the parking lot. The speed limit along the access road would be designated at 20 mph, and employees would be given training to verbally remind departing guests to check under their vehicles before driving away.

Adaptive Management: In the unlikely event that a desert tortoise is injured or killed on the access road or in the parking lot, management shall evaluate remedial measures such as installing speed bumps or altering the steepness or intervals of the speed bumps as well as improving signage and education.

Goal 6: Raise awareness of the desert tortoise for construction personnel, staff, guests and the community.

Objective 1: Utilize educational materials for all construction workers, employees, and guests of the campsite so that no desert tortoises will be injured or killed due to ignorance or lack of information. Staff and guests will be required to sign a statement accepting personal responsibility for understanding the information provided and fully complying with the regulations of the facility.

Adaptive Management: If the threshold were to be met, staff and/or guests would be required to accept personal responsibility and an on-call USFWS approved desert tortoise handler would immediately be called to document and report the incident to the USFWS. If the incident was believed to be intentional, law enforcement would be notified and responsible parties would be subject to federal and state fines, penalties and/or imprisonment. Unintentional or accidental non-compliance by staff would result in a performance review and employment probation or termination pending outcome of an investigation. Unintentional or accidental non-compliance by a guest would result in possibly being temporarily or permanently barred from the facility pending outcome of an investigation.

Management of Desert Tortoise Sanctuary

Goal 7: Stop the destructive activities presently taking place on the site that are destroying potential habitat and harming the resident desert tortoises (i.e., OHV use, illegal dumping, target shooting, etc.).

Objective 1: Implement security measures, such as: signage, fencing, vertical mulching and patrolling, that would reduce the possible occurrence of these

activities, by maintaining a threshold of less than three trespasses or security breaches per year.

Adaptive Management: In the event that any of these activities were to occur, the breached area would be immediately repaired and attempts would be made to identify the offending subject and the incident reported to law enforcement. If occurrences exceeded the threshold, increased patrolling would be initiated and unsuccessful fortifications would be evaluated, remedied and monitored.

Goal 8: Provide and maintain a sanctuary for resident desert tortoises on the undeveloped 300.8 acres of the site (of which 13.8 acres will be for mitigation, and the remaining 287 acres are offered for additional conservation benefit).

Objective 1: Maintain the undeveloped portion of the site so that no more than 2% of the total area is impacted by human disturbances such as foot and horse trails.

Adaptive Management: If this area were to become larger than 2% of the undeveloped area as determined by routine surveillance and monitoring management would evaluate the sources of the problems and take remedial action such as increasing patrols to ensure that visitors stay on approved trails, closing and re-vegetating new trails, improving signage of approved routes and/or restricting access to the undeveloped areas to only groups accompanied by a staff member.

Objective 2: Use educational materials, staff training and signage to raise desert tortoise awareness so that fewer than 4 desert tortoises, if encountered, would be harmed during the permit term of 30 years.

Adaptive Management: If the take threshold of 4 desert tortoises occurs within the permit term, and in addition to standard response measures identified above, the project proponents will notify and work with the USFWS to avoid additional take until the Service determines whether a permit amendment is appropriate.

Proponent estimates that not more than 13.8 acres will be affected by Phase I and II development (see Figures 2 and 4 in Appendix A). The remaining 300 acres is currently open to numerous adverse impacts, including shooting, dumping and OHV use. Through perimeter fencing and other protective measures identified in this HCP, desert tortoises will be provided safe refuge from future impacts, and more importantly over 300 acres of desert tortoise habitat will be restored and protected by the Proponent. This and other measures identified herein will minimize and mitigate any adverse affect on the desert tortoise to the maximum extent practicable and provide extra conservation benefit.

It should be noted that the campground construction and operation areas have been specifically designed to be mostly outside of the identified habitat portion of the site. This design will ensure that 300.8 acres of moderately to severely impacted habitat will be restored and protected forever. The Proponent has chosen to develop less than 4.4% of the parcel. The ratio of developed to preserved lands, including mitigation and extra conservation, is an unprecedented 1:21.8. This outcome is the direct result of the

collaborative efforts of the USFWS, the CDFG, CMBC and the Proponent and creates the unique opportunity to provide a more significant and much greater conservation package than the traditional mitigation requirement. Furthermore, any redesign or modification of the project as proposed would require a full review and written approval by the USFWS and the CDFG, per San Bernardino County law.

5.2 Measures to Mitigate Impacts.

In coordination with the CDFG, the USFWS and CMBC, the Proponent has made numerous changes to the scope and design of the original plan in order to mitigate impacts to desert tortoises and other important resources (i.e., washes). To further enhance the mitigation strategy for the project, additional measures have been included that will better the situation for resident desert tortoise. All of these measures are given below *to mitigate direct impacts*:

- Relocate permanent structures to areas of no or low-density desert tortoise sign;
- Realign the proposed access road to correspond to an existing road;
- Relocate the entrance station out of the wash;
- Realign proposed access trails to tent sites so that they do not coincide with washes;
- Place two culverts along access road at two washes to avoid fragmentation;
- Locate desert tortoise-exclusion fencing along access road and parking lot to avoid crushing desert tortoises;
- Locate desert tortoise-exclusion fencing along access road close to the edge of the road in the areas that the two culverts transect the road in order to minimize the length of the culverts;
- Locate a desert tortoise-permeable perimeter fence and 24-hour security to eliminate illegal OHV use, dumping, shooting;
- Place 3-strand barbed wire perimeter fence in level areas, attached to rocky areas, rather than entire perimeter;
- Place signs along the perimeter and elsewhere to elevate conservation and wildlife awareness;
- Eradicate entrance roads in rocky areas by vertical mulching or other camouflage method: and
- Conserve and enhance 13.8 acres of land.

5.3 Measures to Minimize Impacts.

The measures listed below are guidelines designed to ensure that direct impacts are minimized during the construction phases:

- Reduce size of Project from 33 Private TP campsites to 22;
- Reduce number of ancillary structures, such as one photo studio instead of three;
- Limit grading and removal of native vegetation to the minimum area necessary, not to exceed 100 feet from building footprints;

- Utilize temporary desert tortoise-exclusion fencing to preclude desert tortoises from entering impact areas;
- Restrict all vehicles, staging areas, etc. to barren areas or within fenced impact areas;
- Prohibit cross-country vehicular travel;
- Utilize biological monitors overseeing all construction activities where take is likely to occur;
- Establish and administer desert tortoise awareness programs to personnel prior to development;
- Bar firearms and pets on-site during construction;
- Ensure that all litter and refuse will be disposed of properly to avoid attracting desert tortoise predators; and
- If possible, restrict ground-disturbing activities to between November and January.

Once the site has been developed, the following measures will be implemented in perpetuity to *avoid direct impacts* associated with site operation:

- All dogs will either be restrained within desert tortoise-exclusion fenced areas or maintained on leashes;
- Wildlife educational programs and information will be provided for guests to protect wildlife and increase conservation awareness;
- All employees will receive mandatory wildlife awareness training;
- The speed limit on the main access road will be 20 mph and 10mph within the campground and parking areas;
- Excepting emergencies and maintenance, vehicle travel will be restricted to the main access road and parking lot; and
- Campsites and facilities will be accessed by foot, bicycle, horse, and golf cart only.

Finally, the Proponent will implement measures to *minimize residual and indirect impacts*:

- The following types of measures will be implemented to avoid subsidizing ravens:
 - Ensure pet food is not accessible to ravens by providing guests with raven proof, sealable food and water dishes with instructions to seal dishes when away from the campsite;
 - Ensure no new water sources are available through employee awareness training and monitoring;
 - Avoid new nesting substrates through employee awareness training and monitoring; and
 - If necessary, obtain a USFWS depredation permit and a CDFG scientific collection permit to allow for raven removal.
- Maintain records of desert tortoise encounters to adjust activities and modify facilities in coordination with USFWS as necessary;

- Implement monitoring program(s) for the following concerns and implement remedial actions as necessary:
 - Monitor for integrity of perimeter fence, signage and vertical mulching.
 - Monitor for integrity of desert tortoise-exclusion fencing.
 - Monitor for unauthorized horse and foot trails.
 - Monitor for litter.
 - Monitor for raven and feral dog occurrences.
 - Monitor for unmanaged water sources.
 - Monitor for pet compliance.
 - Monitor for speed limit compliance.

The following sections identify specific measures that will be implemented by the Proponent to minimize impacts to any desert tortoises that may be found on-site and in adjacent areas during and following authorized ground disturbance. These measures will apply to the Proponent and all its authorized contractors and subcontractors involved in site development. Herein, the Proponent identifies measures to minimize all direct and indirect impacts to desert tortoises and occupied habitat, as follows.

5.3.1 *Desert tortoise preconstruction survey.* Desert tortoises found during preconstruction surveys shall be moved out of harm's way by the authorized biologist. Any relocated animals will be placed within the perimeter fence on portions of the subject property that are protected and not to be developed (see "Guidelines for Handling Desert tortoises During Construction Projects" and "Permit Statement Pertaining to High Temperatures for Handling Desert Tortoises" Appendix C).

5.3.2 *Approved biological monitor.* The Proponent shall enlist a USFWS and CDFG approved biologist to perform all monitoring activities prior to and during any construction-related activities that may result in the take of desert tortoises. Within 30 days prior to any ground disturbing activities, the Proponent shall provide the resume(s) of the proposed biologist(s) to USFWS and CDFG. USFWS and/or CDFG must approve the biological monitor before construction begins and before the biologist begins monitoring duties. The approved biologist shall have the authority to halt all project activity should a danger to a desert tortoise arise. The approved biologist can then allow work to proceed after hazards to desert tortoises are removed and the desert tortoise is no longer at risk.

5.3.3 *Desert tortoise awareness program.* Prior to any ground disturbing activities, the permitted biologist shall meet with all construction personnel to discuss the occurrence of desert tortoise on-site and the status of the species. This awareness program shall inform construction personnel of the minimization measures being implemented to protect desert tortoises and the importance of abiding by those measures.

The awareness program must be received, reviewed, and approved by USFWS and/or CDFG at least 30 days prior to the presentation of the program. Alternatively, a previously USFWS-approved program may be used. At a minimum, the program shall include discussion of the distribution, general behavior, and ecology of the desert tortoise, the sensitivity of the desert tortoise to human activities, the protection afforded the desert

tortoise by FESA, the procedures for reporting encounters with desert tortoises, and the importance of following all measures given in the HCP and any applicable Federal documents outlining those measures.

Personnel shall be informed that only approved biologists are allowed to handle desert tortoises; construction personnel and campground staff shall not handle desert tortoises under any circumstances. They shall be informed that any such handling or any other form of take is not authorized, and that penalties for unauthorized take may include a \$25,000 fine and up to six months in prison.

As part of the awareness program, all workers shall have been informed to check beneath any parked vehicle immediately prior to moving the vehicle while in desert tortoise habitat outside fenced impact areas. After the desert tortoise-exclusion fence has been installed, all personal vehicles and construction equipment shall be parked inside the fenced area. Cross-country vehicular travel outside fenced areas or inside the fenced area prior to removal of desert tortoises shall be prohibited. If a desert tortoise is found beneath a vehicle, the approved biologist shall be contacted to move it from harm's way. Alternatively, the vehicle shall not be moved until the desert tortoise has left of its own accord. The permitted biologist shall be responsible for taking appropriate precautions to ensure that any desert tortoise moved in this manner is not exposed to temperature extremes that could be harmful to the animal.

All trash and food items shall be promptly placed in covered receptacles within the project site to reduce the attraction of common ravens and other desert tortoise predators. Plastic garbage bags shall be placed in raven-proof containers and not left in the open, on the ground. The covered containers shall be regularly removed from the site for disposal at an authorized landfill. Water used for dust suppression shall be applied in such a manner to avoid ponding and subsequent use by ravens.

Construction personnel and other people related to the project shall maintain a 20-mile per hour speed limit on all dirt roads accessing the site. Desert tortoises observed along dirt access roads shall be moved only by personnel permitted to do so under the 10(a)(1)(B) or 10(a)(1)(A) permit.

No intentional killing, harassment, or collection of wildlife shall be allowed within or near the construction area. This measure pertains to both construction personnel and biological monitors. The only exception is if a desert tortoise is injured or found dead, the Service-approved biologist will be contacted to handle the situation and the USFWS will be notified. Rattlesnakes and other animals may be moved from harm's way as necessary, but will not be collected.

Construction personnel shall be informed that they are not to bring pets (except for service animals) or firearms onto the job site. The use of fireworks and other explosives (not used for construction purposes) shall be prohibited. Proponent shall publish a written policy reflecting their goal to protect and preserve the natural balance of nature by

prohibiting firearms on the property and prosecuting anyone found harming or damaging wildlife or property.

Additional minimization measures will include the distribution of: (a) highly visible stickers to be worn on hard hats to identify workers who have attended the education program; the absence of such a sticker would indicate that a worker had not attended the session, which would be rectified prior to beginning work; (b) stickers or placards reminding construction personnel to check beneath their vehicles for desert tortoises prior to moving the vehicle; and (c) wallet-sized cards outlining important, practical desert tortoise protection measures.

The Proponent shall maintain a list of all construction personnel who have attended the awareness program. Personnel shall be informed that their signature on the list indicates that they understand the minimization measures and are willing to abide by them throughout all construction activities.

All construction personnel shall be given the awareness program in a classroom setting prior to initiating construction. This measure would allow the use of an educational video, such as the one produced by NASA (National Aeronautics and Space Administration), which was expressly endorsed in September 1995 by the Ventura Fish and Wildlife Office of USFWS. The video has proven very beneficial as a supplement to handouts and discussions. For construction personnel coming into the workplace after this initial presentation, the Proponent shall meet with each person in the field and provide them with the same information presented in the classroom, minus the video presentation.

5.3.4 Field contact representative (FCR). The Proponent shall appoint a field contact representative (FCR) who shall be responsible for overseeing compliance with the measures given in the HCP and coordinating compliance with project subcontractors and USFWS and CDFG. The FCR shall have the authority to halt all project activities that are in violation of the measures given in the HCP and permit.

5.3.5 Report the onset of construction. Prior to beginning construction of a given phase, the Proponent shall inform USFWS and CDFG of the area to be developed and the proposed construction date. If survey data are available, the report should indicate how many desert tortoises are likely to be affected by a given phase, within the prescribed take limit. The information shall be provided 30 to 45 days prior to construction to inform the agencies that the permit is being acted upon. It is not necessary for the agencies to respond for development to proceed so long as the other provisions identified in this HCP are being implemented accordingly.

5.3.6 Install a desert tortoise-exclusion fence for construction and remove desert tortoises. Prior to clearing vegetation from a given phase, a desert tortoise-exclusion fence shall be erected around the perimeter of the area on which permanent facilities will be developed. Once the phase is fenced, desert tortoises shall be removed from the area and the fence maintained in place until construction is completed. The purpose of the fence is to

preclude all desert tortoises from the construction impact zone, including desert tortoises removed from the site that may try to get back to their on-site burrow(s).

The 1" x 2" wire mesh fence would be fastened securely to posts at intervals sufficient to ensure integrity of the fence. The wire mesh shall extend at least 18 inches above the ground and 12 inches laid out at a right angle to the fence (extending away from the interior) for temporary fencing, and below the ground 12 inches for permanent fencing, pursuant to the Service's Desert Tortoise Exclusion Fence Recommended Design (See Appendix G).

The Proponent shall be responsible for maintaining the desert tortoise-exclusion fence throughout construction. Breaks in the fence that could allow immigration of desert tortoises into the construction area shall be repaired immediately. The fence shall be checked regularly and particularly after each major rainstorm to ensure that it will continue to exclude desert tortoises from the site. While on-site, biological monitors shall be given this responsibility as part of their normal monitoring duties.

All project-related facilities and construction-related areas, such as staging areas and personnel parking areas, shall occur within the fenced area(s). All related infrastructure (wells, water treatment, refuse transfer, developed parks, commercial development, etc.) shall also remain within the fenced area.

The desert tortoise exclusion fence during construction shall have as part of its design either a desert tortoise-exclusion gate or a breakaway portion of fence that can be opened and closed to allow vehicle access. The gate or modified fence shall remain closed at all times during construction except to allow vehicles to enter or leave the site. This measure may be modified if the biological monitor, based on his or her surveys of surrounding areas, determines that there is little or no likelihood of desert tortoises entering the site through the opening. If the biologist determines that the gate may be left open and subsequently finds that a desert tortoise has entered the construction area through that opening, a gate or modified fence shall be installed and kept closed.

Prior to installing the fence, the biologist shall survey the area along which the fence will be installed. The fence line shall be moved when possible so that any desert tortoise burrows will remain on the outside of the fenced area. The biologist shall consider the direction of the burrow and know that burrows may be 30 to 40 feet long. So, not only the burrow opening, but also the burrow's end, shall be considered and excluded if the fence line is to be altered. Any desert tortoise burrows found within the proposed fence line that cannot be avoided shall be hand excavated by the biologist prior to clearing of the fence line or installation of the fence. Burrow excavation procedures are given in Desert Tortoise Council (1999). The biologist shall remain on-site to monitor the installation of the fence.

After installing the fence, and before any other activities occur within the fenced area, the permitted biologist shall survey the site for desert tortoises. If possible, and depending on the size of the phase, the surveys shall occur immediately after installation of

the fence, and several days prior to brushing or grading activities. The site shall be searched three times unless no desert tortoises are found on the second search. Burrows shall either be excavated as they are found or flagged for excavation later. Each burrow shall also be carefully checked for viable desert tortoise eggs. When found, the biologist shall have a plan for disposition of these eggs outside the impact zone but within the adjacent 300.8-acre area, and move the eggs in such a way that the viability of the eggs is not adversely affected by their movement (Desert Tortoise Council 1999).

Prior to removing desert tortoises from the first phase, the Proponent shall have fenced the perimeter of the 314.6-acre site with a permeable fence (e.g., three-strand, barbed-wire). The area should provide sufficient space to ensure protection of desert tortoises moved out of impact areas. The number of desert tortoises, dates, and other pertinent information shall be maintained for each displaced desert tortoise. The Proponent will likely continue to collect pertinent data on these desert tortoises in subsequent years.

The Proponent also intends to install a desert tortoise-exclusion fence and two culverts along the main access road into the site. Since this fence will have to function for a longer period of time, it will be necessary to attach the mesh to a chain-link or barbed wire fence that will withstand encroachment by motorcyclists or other off-highway vehicles. A desert tortoise-exclusion fence not attached to a more substantial fence will not likely deter human encroachment or exclude desert tortoises from the access road over a long period. For this long-term fence, where practical, the bottom 12 inches shall be buried rather than folded on top of the ground (as would be done for a temporary fence). The fence shall be monitored to ensure its integrity.

5.3.7 Termination of biological monitoring. Once all desert tortoises have been removed from the area fenced temporarily for construction, the biologist shall remain on-site until construction areas have been cleared of vegetation. No vegetation shall be cleared outside the fenced area. The biologist shall inspect the brushed area immediately after clearing to ensure that no desert tortoises were injured during brushing. Once the site has been fenced, surveyed, all desert tortoises removed and translocated, the vegetation cleared, and the area checked to ensure that no desert tortoises were injured or killed, the permitted biologist shall not be required to remain on-site as long as all other measures given herein are being implemented.

In lieu of the on-site monitor, the FCR shall be given the responsibility of ensuring compliance with HCP measures. The FCR, or appointee, shall visit the site as often as needed to check the desert tortoise-exclusion fence and ensure that other measures are being effectively carried out. Of particular importance shall be the containment of construction activities, including parked vehicles and equipment staging areas, inside the fenced area. If the FCR finds that the measures are not being implemented, the Proponent and USFWS shall be contacted and informed of the situation. USFWS would then determine if the monitor should resume monitoring activities on a daily basis.

If a desert tortoise is observed inside the fenced area after the monitor leaves, the permitted biologist shall immediately go to the site and move the desert tortoise into the

adjacent protected area on the subject property. If desert tortoises are injured, they shall immediately be taken to a local veterinarian for first aid. On-site construction shall not resume until the biological monitor returns to the site, or until an approved substitute monitor is enlisted.

5.3.8 Removal of the desert tortoise fence and subsequent protection of desert tortoises. At the completion of construction the desert tortoise-exclusion fence may be removed from the site or left in place to continue to exclude desert tortoises from impact areas. Fence removal would depend on the nature of construction. If all desert tortoises were removed at one time, a more substantial fence (or even block wall) would be required. As construction proceeds, the fence may be removed or used in part for the next development phase. If the fence is removed by heavy equipment, that activity shall be monitored. If removed by hand, a monitor need not be present. In either case, such activities should be documented in appropriate reports.

5.3.9 Follow-up measures to minimize residual and indirect impacts. The Proponent shall implement additional measures that will continue to protect desert tortoises after construction is completed. As described above, the Proponent shall monitor and maintain all desert tortoise-exclusion fences. Additionally, the Proponent shall design and implement a raven monitoring program. Among other things, the Proponent shall routinely monitor the undeveloped 300.8 acres of the site as part of the weekly routine campground security surveillance to determine if ravens are preying on desert tortoises. The monitoring program shall consider if any new facilities are subsidizing ravens with new sources of water and/or food and nesting substrates.

Campground employees and visitors shall be made aware that desert tortoises occur in adjacent areas and that they are protected by the FESA. An educational brochure providing information about the local presence of desert tortoises and prohibitions against off-highway vehicle activity, desert tortoise collection, release of pet desert tortoises, unleashed dogs, and other pertinent items, shall be developed and made available to campground visitors. Signs or information kiosks shall be placed at prominent entry point(s) to provide information on desert tortoise conservation and minimize the impacts of the increased use of the area after it is developed.

5.4 Additional Voluntary Conservation.

The Proponent has voluntarily offered to conserve and manage an additional 287 acres of the property. The conservation and management of the 287 acres will enhance the conservation value of the 13.8 acres used as mitigation by providing desert tortoises 300.8 acres of contiguous restored habitat.

5.5 Monitoring and Reports.

5.5.1 Construction monitoring and reporting. The Proponent shall enlist Service authorized biologist(s) to monitor fencing, brushing, and other authorized construction activities that may harm the desert tortoise. The permitted biologist shall maintain a record

of all desert tortoises observed and moved during project activities. This information shall include locations and dates of observations, approximate size, whether animals voided their bladders (if handled), general condition of health, any apparent injuries and state of healing, and diagnostic markings (i.e., identification numbers on marked costal scutes).

A follow-up report shall be provided to USFWS and CDFG within 90 days of completion of monitoring activities. The report shall include final determination of the acres of surface disturbance, all desert tortoise observation records, and an evaluation of the impacts to desert tortoises resulting from the construction activities. The report shall address the appropriateness of the minimization/mitigation measures and make recommendations as to how the measures may need to be changed for construction of future phases as well as an evaluation of the objectives set forth in the enhancement effort of the undeveloped areas.

5.5.2 Procedures for removing dead and injured desert tortoises. If a dead desert tortoise is found, the permitted biologist shall make a determination as to the cause of death. If the cause of death or injury is from construction activities, the incident(s) shall be reported as follows. Upon locating a freshly dead or injured desert tortoise, initial notification must be made to the Ventura Fish and Wildlife Office within three working days of its finding. If determinable, the cause of death will be documented. Written notification must be made within five calendar days and include the date, time, and location of the animal, a photograph, and any other pertinent information. The notification shall be sent to the USFWS (Ventura) and CDFG (Palmdale).

If an injured desert tortoise is found, it shall be transported to High Desert Animal Hospital in Yucca Valley for immediate evaluation and treatment by an authorized biologist. The ultimate disposition of that desert tortoise will depend on its recuperation from the injury and shall be determined with input from USFWS and possibly CDFG. The Proponent shall pay all veterinary bills.

5.5.3 Monitoring for desert tortoise predator subsidies, threats and security breaches. As part of the responsibilities delegated to maintenance, security and ranger personnel, a weekly checklist will be maintained detailing the specific areas of concern to be monitored, which are set forth in the Goals and Objectives section of this HCP. Thresholds that are met will immediately be reported to management and in consultation with the Proponent's biologist, measures outlined in Adaptive Management will be taken to remedy the situation.

5.5.4 Annual wildlife agency reporting. The Proponent will submit to USFWS and CDFG a report detailing all of the information compiled in the records of the monitoring program, including all reports of encounters with desert tortoises and their resolutions, not later than March 31 for the preceding calendar year ending December 31, or any portion thereof, during which the permit was in force. An assessment of the effectiveness of the monitoring program will be offered as well as any suggestions for improvements. The annual reports will also include a cumulative total of the number of desert tortoises taken and the form of take (e.g. capture, harassment, wounding, injured, mortality, etc.), changed

circumstances encountered, adaptive management implemented, and any other problems or relevant information.

6.0 FUNDING

6.1 Funding for Minimization and Mitigation Measures.

The Proponent shall pay all costs associated with implementation of this HCP. These costs are generally discussed in the following paragraphs.

6.1.1 *Minimization and Mitigation measures.* As given in this HCP to remove desert tortoises from impact areas, “the site shall be searched three times unless no desert tortoises are found on the second search.” This is a standard measure used for many USFWS-authorized projects. It is vital that all desert tortoises be removed from the construction impact area to minimize incidental take in the form of wounding or mortality that may result from project activities. If the mortality limit is exceeded, the 10(a)(1)(B) permit is violated and an amendment would be needed to regain compliance. All desert tortoises occurring within the construction impact zone will be moved from harm’s way. The larger the area to be surveyed, the more costly it will be to find and remove all desert tortoises, particularly if desert tortoise removal occurs during the desert tortoise’s activity period, roughly between late February and early October.

The cost of desert tortoise removal will vary depending on the permitted biologist contracted by the Proponent. In general, presence-absence surveys can be performed at a rate of about four acres/hour. However, this pace will likely be slower for the clearance survey because each desert tortoise burrow encountered must be excavated and when desert tortoises are found, they must be moved out of harm’s way and monitored for a short period. As such, CMBC estimates that clearance surveys may be performed at a pace of about two acres per hour.

Installation of a desert tortoise-exclusion fence around the area of impact, with desert tortoise-exclusion gates at entry points when required, is an essential component of a desert tortoise removal effort. Since fence installation will need to be monitored, it would save the Proponent money to have installation occur simultaneously with the site survey, although desert tortoises could not be moved from the site until the perimeter fence was in place. If desert tortoises are inactive at the time of fence installation (which is preferred), uninhabited burrows may be excavated as they are found and potentially inhabited burrows could be flagged and excavated after the fence was installed.

6.1.2 *Projected Costs.* Table 4 below identifies costs that would result with implementation of HCP measures. These include both the measures to mitigate for the development of the 13.8 acres and the voluntary conservation and enhancement of the 300.8 acres (which includes the 287 acres of additional conservation plus the 13.8 acres of mitigation):

Table 4. Projected Costs of Mitigation/Minimization/Maintenance Measures

One time costs associated with minimization measures.					
Item	Description	Unit Cost	No. of Units	Cost for 300.8 acres	Cost for 13.8 acres
Desert tortoise-exclusion fencing for construction areas, access road and parking lot.	8,380 linear feet of desert tortoise fencing @ \$3.00 per foot installed.	\$3.00	8,380	\$25,140.00	\$25,140.00
Authorized biologist conducting pre-construction surveys, monitoring and reporting for both phases of construction.	Fixed fee contract	\$7,500.00	2	\$15,000.00	\$15,000.00
Veterinary bills for injured desert tortoises during construction.	Allowance	\$1,500.00	4	\$6,000.00	\$6,000.00
Desert tortoise awareness program for construction workers for both phases of construction.	Development, materials and administration including signage.	\$2,500.00	2	\$5,000.00	\$5,000.00
Raven-proof trash containers	Rubbermaid® 50 Gallon Brute® Roll Out Containers	\$85.00	12	\$1,020.00	\$1,020.00
Construction of 2 culverts	32 ' long x 30" diameter pre-cast concrete culverts installed.	\$2,000.00	2	\$4,000.00	\$4,000.00
Subtotal				\$56,160.00	\$56,160.00
10% Contingency				\$5,616.00	\$5,616.00
Total				\$61,776.00	\$61,776.00

One time costs associated with the enhancement of the undeveloped 300 acres, including mitigation and extra conservation.					
Item	Description	Unit Cost	No. of Units	Cost for 300.8 acres	Mitigation 4.6% (13.8 acres)
Perimeter desert tortoise-permeable fencing on flat grades.	10,560 ft. of 3 strand barbed wire fencing installed.	\$2.00	10,560	\$21,120.00	\$971.52
Vertical mulching in rocky and hilly areas with access to property.	1,320 ft. of camouflage barrier (berming and/or obstructively placing large rocks/boulders).	\$1.50	1,320	\$1,980.00	\$91.08
Collection of debris from site.	Crew of 10 – Collecting 10 acre per hour – 4 days of work - \$10 per hour each.	\$800.00	4	\$3,200.00	\$147.20
Sorting of debris for recycling/re-purposing and disposal.	Crew of 10 – Sorting for 8 hours – 1 day of work - \$10 per hour each.	\$800.00	1	\$800.00	\$36.80
Removal of debris from site.	Large dumpster rental and removal.	\$300.00	10	\$3,000.00	\$138.00
Habitat restoration. Planting native vegetation.	Crew of 10 – 2 days of work - \$10 per hour each.	\$800.00	2	\$1,600.00	\$73.60
Subtotal				\$31,700.00	\$1,458.20
10% Contingency				\$3,170.00	\$145.82
Total				\$34,870.00	\$1,604.02
Recurring annual costs associated with the long-term management of the undeveloped 300 acres, including mitigation and extra conservation.					
Item	Description	Unit Cost	No. of Units	Cost for 300.8 acres	Mitigation 4.6% (13.8 acres)
Authorized biologist on call, quarterly review of monitoring program and reporting.	Biologist overseeing data collection/monitoring conducted by staff and rangers and crisis response.	\$1,500.00	4	\$6,000.00	\$276.00
Permit compliance reporting.	Annual status report to USFWS and CDFG.	\$3,000.00	1	\$3,000.00	\$138.00
Fencing and vertical mulching maintenance/improvements.	5% of cost per year	\$2,412.00	1	\$2,412.00	\$110.95
Educational materials and programs for staff and guests.	Printed materials, PSA's, signage, etc.	\$10,000.00	1	\$10,000.00	\$460.00
Recurring Annual Maintenance Costs Subtotal				\$21,412.00	\$984.95
Contingency Costs					
Addressing wildfire burning 160 acres as a changed circumstance	Replant and reseed for erosion control. 10 persons working 5 days.	\$800.00	5	\$4,000.00	\$184.00
Addressing disease outbreak	Biologist working 3 days handling 2 desert tortoises per day.	\$1,000	3	\$3,000.00	\$138.00
10% general contingency allowance for annual maintenance costs				\$2,141.00	\$98.49

Contingency Costs Subtotal*	\$9,141.00	\$420.49
1 st Year Maintenance + Contingency Costs Total	\$30,553.00	\$1,405.44
Grand Total	\$127,199.00	
Recurring Annual Maintenance Costs	\$21,412.00	\$984.95
Additional 29 years of annual maintenance costs for term of permit	\$620,948.00	\$28,563.55
One Time Minimization Costs + One Time Costs of Enhancement of 13.8 acres + 1st Year of Maintenance and Contingency Costs + Maintenance of 13.8 acres Over 29 Years = Grand Total		\$93,349.01

*If any portion of the contingency monies is utilized during any given year, the amount used will be repaid together with the next annual endowment, so that each year the full \$9,141.00 contingency allowance will be available.

6.1.3 *Funding Strategy.* The Proponent will be seeking third party financing for the construction of the proposed project. Precise details for the financing of the project are contingent on the project receiving full entitlement from the County of San Bernardino and is a necessary prerequisite to obtaining the financing needed to complete the project. San Bernardino County requires that the Proponent obtain the necessary Federal and State incidental take permits in order to proceed with county permit applications. Once the required permits and entitlements are secured financing can be pursued. Without this third party financing the project would not be possible and the “No Action Alternative” described below would be the only recourse available.

Table 4 above shows all of the projected mitigation/minimization, enhancement and recurring maintenance costs associated with the construction of the project and the 300.8-acre wildlife sanctuary, as well as a 4.6 percent allocation of those costs (13.8 acres/300.8 acres = 4.6%). While conserving 300.8 acres is far beyond what is required by USFWS to mitigate for this project, the Proponent has chosen to conserve this amount in order to maximize the benefit to wildlife. Therefore the table shows both the actual costs anticipated by the proponent as well as a 13.8-acre allocation, which will meet USFWS requirements. The funding assurances for the required costs are outlined in the following section.

Preliminary projections indicate that project operations will create a cash flow sufficient to finance all costs associated with the HCP and its contingencies. The projected “one time minimization and enhancement costs” (61,776+1,604.02=\$63,380.02) represent less than 2% of the Phase I construction budget. Annual recurring costs (\$984.95) for the required mitigation represent less than 1% of the annual operating expense projections. Total implementation costs of the HCP is \$93,349.01, which excludes the \$654,797.99 the proponent has chosen to spend on the enhancement and management of the additional 287 acres set aside for conservation. On a per-live-animal basis, the projected costs associated with the HCP are very significant. In addition, the Proponent’s project creates positive externalities for the species and the community that cannot be quantified.

6.1.4 *Funding Assurances.* The Proponent will secure a performance bond in the amount of \$94,000, underwritten by J.R. Olsen Bonds & Insurance Company (California License 0680914), for JAT Associates, for a period of 3 years or until financing has been secured, whichever occurs first (See Appendix F). With financing in place, the Joshua Tree Campground Foundation (Foundation) will be established to manage the monies set aside to fund all the costs associated with the HCP. The Foundation will be established

through the American Endowment Foundation (AEF), <http://www.aefonline.org/>. The Foundation will receive an initial endowment of \$94,000 (\$93,349.01 rounded up), which will fulfill the funding requirements outlined in Table 4 for minimization, mitigation and maintenance measures on 13.8 acres. Additional voluntary endowments will be paid to the Foundation through the revenues generated by the business to fund all of the remaining maintenance costs associated with the wildlife sanctuary. If financing cannot be secured, the bond will be terminated and the project will not be pursued.

7.0 ALTERNATIVES

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 below.

7.1 No Action Alternative.

Under the No Action Alternative, no permit would be issued and the campground facilities would not be built. On-going uses would continue to degrade desert tortoise habitats and desert tortoises would continue to be in harm's way from illegal activities. Dumping, shooting, recreational OHV activity, feral dogs, etc. will continue to be a problem on the site unless fencing and other protective measures are implemented, which are not envisioned without campground development. Faced with this alternative as the only option available, the Proponent would be forced to sell the property to another party to recoup expenses made to initiate development of the Campground project. The Proponent could make no guarantees as to how a new property owner would choose to develop the land. This alternative was rejected because it does not meet the Proponents project goals and will not ensure that 300.8 acres of potential desert tortoise habitat be preserved in perpetuity.

7.2 Alternate Site Alternative.

The Proponent's original project configuration considered a different location for construction within the 314.6-acre parcel. This alternative entailed a more spread-out development with 11 additional campsites and 2 additional buildings in other portions of the property. This configuration partially overlapped with areas of higher density desert tortoise sign. The original project configuration alternative was rejected because it would likely result in greater impacts to the desert tortoise and its habitat.

8.0 PLAN IMPLEMENTATION, RESPONSIBILITIES, CHANGED AND UNFORSEEN CIRCUMSTANCES

8.1 Plan Implementation.

Table 5 below identifies the anticipated timing and acreage associated with phased construction.

Table 5. Anticipated Project Phasing

Phase	Year Developed	Acreage
1	2007-2010	51,971 ft ² (1.2 acres) buildings
		324,400 ft ² (7.4 acres) roads/trails
2	2010-2016	90,332 ft ² (2.1 acres) buildings
		135,600 ft ² (3.1 acres) roads/trails
2 Phases	10 years	602,303 ft² (13.8 acres)

8.2 Responsibilities.

The Proponent is responsible for implementing each protective measure expressly given in this HCP and for providing sufficient funds to implement the measures. Management of the monies set aside to cover the costs associated with the HCP will be the responsibility of the Foundation. The Proponent shall have completed its involvement for this project once the stipulations identified in the HCP have been fulfilled. The Proponent will not be responsible for any additional actions or costs that are not identified in the HCP, as long as the HCP is properly implemented and functioning.

8.3 Changed and Unforeseen Circumstances.

Section 10 regulations [50 CFR 17.22(b) and 17.32(b)] require that an HCP specify the procedures to be used for dealing with changed and unforeseen circumstances that may arise during the implementation of the HCP. In addition, the Habitat Conservation Plan Assurances (No Surprises) [(69 *FR* 71723, December 10, 2004 codified the Rule in 50 CFR 17.3, 17.22 (b)(5), and 17.32 (b)(5)] defines changed and unforeseen circumstances and describes the obligations of the Proponent and the USFWS. The purpose of the No Surprises Rule is to provide assurance to the non-federal landowners participating in habitat conservation planning under FESA that no additional land restrictions or financial compensation will be required for species adequately covered by a properly implemented HCP, in light of unforeseen circumstances, without the consent of the Proponent.

8.3.1 *Changed circumstances.* “Changed circumstances” are defined as changes in circumstances affecting a species or geographic area covered by an HCP that can reasonably be anticipated by plan developers and the USFWS and for which contingency plans can be prepared (e.g., the new listing of species, a fire, or other natural catastrophic event in areas prone to such event). If additional conservation and mitigation measures are deemed necessary to respond to changed circumstances and these additional measures were already provided for in the plan’s operating conservation program (e.g., the conservation management activities or mitigation measures expressly agreed to in the HCP), then the Proponent will implement those measures as specified in the plan. However, if additional conservation management and mitigation measures are deemed necessary to respond to changed circumstances and such measures were not provided for in the plan’s operating conservation program, the USFWS will not require these additional measures absent the consent of the Proponent, provided that the species are

adequately covered and the HCP is being “properly implemented” (properly implemented means the commitments and the provisions of the HCP have been or are fully implemented).

If a new species that is not covered by the HCP but that may be affected by activities covered by the HCP is listed under the FESA during the term of the section 10(a)(1)(B) permit, the section 10(a)(1)(B) permit will be reevaluated by the USFWS and the HCP covered activities may be modified, as necessary, to ensure that the activities covered under the HCP are not likely to jeopardize or result in the take of the newly listed species or adverse modification of any newly designated critical habitat. The Proponent shall implement the modifications to the HCP covered activities identified by the USFWS as necessary to avoid the likelihood of jeopardy to or take of the newly listed species or adverse modification of designated critical habitat. The Proponent shall continue to implement such modifications until such time as the Proponent has applied for and the USFWS has approved an amendment of the section 10(a)(1)(B) permit, in accordance with applicable statutory and regulatory requirements, to cover the newly listed species or until the USFWS notifies the Proponent in writing that the modifications to the HCP covered activities are no longer required to avoid the likelihood of jeopardy of the newly listed species or adverse modification of newly designated critical habitat.

Wildfire or disease can be considered examples of changed circumstance that could adversely affect the desert tortoise population. Wildfires could potentially devastate approximately 160 acres of the site area, as this constitutes the low-lying areas with native vegetation at risk. The remaining site topography is comprised of a rocky mountain range with sparse vegetation. In response to such an event, the Proponent would assess damage to the affected areas and initiate a program of reseedling and replanting with native vegetation for erosion control. Estimated costs for such an undertaking are included in Table 4 above. The Proponent would also work closely with the USFWS and CDFG to address these circumstances in the unlikely event that they occur.

If a disease were to plague the local desert tortoises the biologist would determine the nature of the disease and assess its potential threat to the other desert tortoises. If necessary the biologist would initiate a program to locate and check resident desert tortoises for signs of the disease. Estimated costs for such an undertaking are included in Table 4 above. The Proponent would work with the USFWS and the CDFG to determine what measures to be taken would be the most appropriate for the specific circumstances.

8.3.2 *Unforeseen circumstances.* “Unforeseen circumstances” are changes in circumstances that affect a species or geographic area covered by the HCP that could not reasonably be anticipated by plan developers and the USFWS at the time of the plan’s negotiation and development and that result in a substantial and adverse change in status of the covered species. The purpose of the No Surprises Rule is to provide assurances to non-federal landowners participating in habitat conservation planning under FESA that no additional land restrictions or financial compensation will be required for species

adequately covered by a properly implemented HCP, in light of unforeseen circumstances, without the consent of the Proponent.

In case of an unforeseen event, the Proponent shall immediately notify the USFWS staff who function as the principal contact(s) for the proposed action. In determining whether such an event constitutes an unforeseen circumstance, the USFWS shall consider, but not be limited to, the following factors: size of the current range of the affected species; percentage of range adversely affected by the HCP; percentage of range conserved by the HCP; ecological significance of that portion of the range affected by the HCP; level of knowledge about the affected species and the degree of specificity of the species' conservation program under the HCP; and whether failure to adopt additional conservation measures would appreciably reduce the likelihood of survival and recovery of the affected species in the wild.

If the USFWS determines that additional conservation and mitigation measures are necessary to respond to the unforeseen circumstances where the HCP is being properly implemented, the additional measures required of the Proponent must be as close as possible to the terms of the original HCP and must be limited to modifications within any conserved habitat area.

8.4 Amendments

8.4.1 Minor Amendments. Minor amendments are changes that do not affect the permit or the scope of the HCP's impact and conservation strategy, change amount of take, add new species, and change significantly the boundaries of the HCP. Examples of minor amendments include correction of spelling errors or minor corrections in boundary descriptions. The minor amendment process is accomplished through an exchange of letters between the permit holder and the Service's Field Office.

8.4.2 Major Amendments. Major amendments to the HCP and permit include changes to the permit and scope of the HCP, conservation strategy, amount of take, addition of new species to the permit and HCP, and significant changes to the boundaries of the HCP. Major amendments often require amendments to the Service's decision documents, including the NEPA document, the biological opinion, and findings and recommendations document. Major amendments will often require additional public review and comment.

8.5 Suspension/Revocation

The USFWS may suspend or revoke their respective permits if the Proponent fails to implement the HCP in accordance with the terms and conditions of the permits or if suspension or revocation is otherwise required by law. Suspension or revocation of the Section 10(a)(1)(B) permit, in whole or in part, by the USFWS shall be in accordance with 50 CFR 13.27-29, 17.32 (b)(8).

8.6 Permit Renewal

Upon expiration, the Section 10(a)(1)(B) permit may be renewed without the issuance of a new permit, provided that the permit is renewable, and that biological circumstances and other pertinent factors affecting covered species are not significantly different than those described in the original HCP. To renew the permit, the Proponent will submit to the USFWS, in writing:

- a request to renew the permit; reference to the original permit number;
- certification that all statements and information provided in the original HCP and permit application, together with any approved HCP amendments, are still true and correct, and inclusion of a list of changes;
- a description of any take that has occurred under the existing permit; and
- a description of any portions of the project still to be completed, if applicable, or what activities under the original permit the renewal is intended to cover.

If the USFWS concurs with the information provided in the request, it shall renew the permit consistent with permit renewal procedures required by Federal regulation (50 CFR 13.22). If the Proponent files a renewal request and the request is on file with the issuing USFWS office at least 30 days prior to the permits expiration, the permit shall remain valid while the renewal is being processed, provided the existing permit is renewable. However, the Proponent may not take listed species beyond the quantity authorized by the original permit. If the Proponent fails to file a renewal request within 30 days prior to permit expiration, the permit shall become invalid upon expiration. The Proponent must have complied with the permit and all annual reporting requirements to qualify for a permit renewal.

8.7 Permit Transfer

In the event of sale or transfer of ownership of the property during the life of the permit, a new permit application, permit fee, and an Assumption Agreement will be submitted to the USFWS by the new owner(s). The new owner(s) will commit to all requirements regarding the take authorization and minimization/mitigation obligations of this HCP unless otherwise specified in the Assumption Agreement and agreed to in advance with the USFWS.

8.8 Other Measures as Required by Director.

Section 10(a)(2)(A)(iv) of the 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 (Circle Mountain Biological Consultants 1997a), the USFWS required that an Implementing Agreement be developed. Since this project is a Low-effect HCP, there is no requirement for an Implementing Agreement or an Environmental Assessment.

8.9 Public Participation.

The Proponent first contacted the USFWS and the CDFG in October 2003 for assistance in optimizing their project design to maximize its beneficial impacts to the environment and the desert tortoise. As a result of input by the agencies, the project was scaled back and reconfigured. Although the resulting design creates a net benefit to the environment, the agencies also determined that incidental take permits would be necessary. Therefore, at the direction of the USFWS, the Proponent has requested that this be a Low-effect HCP, which entails a streamlined public review process relative to regular 10(a)(1)(B) permit processing. The USFWS will publish a Notice of Availability of a Permit Application in the *Federal Register* to give the public an opportunity to comment on the HCP and NEPA document. Eventually, campground visitors will be exposed to the conservation awareness program established and dispersed by the Proponent.

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10.0 APPENDICES

Appendix A. Maps and figures

Appendix B. Biological resource inventory performed by CMBC in August 2003.

Appendix C. Guidelines for Handling Tortoises During Construction Projects and Permit Statement Pertaining to High Temperatures for Handling Desert Tortoises

Appendix D. List of persons contacted to complete these documents

Appendix E. Application for State 2081 Incidental Take Permit

Appendix F. Certification of Intent to Obtain Performance Bond

Appendix G. USFWS Desert Tortoise Exclusion Fence Protocol

Appendix A.

Maps and Figures

- Figure 1.** Joshua Tree Recreational Campground: Original Proposal (pre-Oct 2003)
- Figure 2.** Joshua Tree Recreational Campground: Revised Proposal (post-Oct 2003)
- Figure 3.** Joshua Tree Recreational Campground: Legal Description
- Figure 4.** Joshua Tree Recreational Campground: Revised Proposal (post-Aug 2004)

Appendix B.

Biological Resource Inventory Performed by CMBC in August 2003

Appendix C.

Guidelines for Handling Desert Tortoises During Construction Projects

Appendix D.

List of Persons Contacted to Complete These Documents

Brian Croft, U.S. Fish and Wildlife Service, 2493 Portola Road, Ste. B, Ventura, CA 93003. PH: (805) 644-1766. FAX: (805) 644-3958. Coordinating wildlife biologist with Service, attending meeting in August 2004 and providing miscellaneous other communications including meeting in April 2005 (Ventura).

Sharon Dougherty, Circle Mountain Biological Consultants, P.O. Box 3197, Wrightwood, CA 92397. PH/FAX: (760) 249-4948. Secondary author of this Habitat Conservation Plan and associated documents.

Judy Hohman, U.S. Fish and Wildlife Service, 2493 Portola Road, Ste. B, Ventura, CA 93003. PH: (805) 644-1766. FAX: (805) 644-3958. Involved in the Morongo Basin coordination meeting on 4 February 2004 and other various aspects of HCP completion including meeting in April 2005 (Ventura).

Becky Jones, California Department of Fish and Game, 36431 41st Street, East Palmdale, CA 93552. PH: (661) 285-5867. FAX: (661) 285-5867. October 2003, Ms. Jones met on-site with Sharon Dougherty of CMBC and Proponent, Abel Villarreal and John Simpson, to discuss impacts. Participated in meeting in August 2004 with Service (Brian Croft), CMBC (LaRue and Dougherty), Proponent (Villarreal and Simpson), and Engineer (Bill Warner).

Edward LaRue, Circle Mountain Biological Consultants, P.O. Box 3197, Wrightwood, CA 92397. PH/FAX: (760) 249-4948. Primary author of the Habitat Conservation Plan.

Jennifer Lechuga, U.S. Fish and Wildlife Service, 2493 Portola Road, Ste. B, Ventura, CA 93003. PH: (805) 644-1766. FAX: (805) 644-3958. HCP template and other documents received by CMBC from Ms. Lechuga, dated 23 August 2004. Also attended meeting in April 2005 (Ventura).

Curt Sauer, Superintendent, Joshua Tree National Park. PH: (760) 367-7511. Mr. Sauer attended regulatory meeting on 4 February 2005 to discuss HCP planning in the Morongo Basin.

John Simpson, JAT Associates, Inc., 2658 Griffith Park Blvd. #310, Los Angeles, CA 90039. PH: (323) 913-2960. Project proponent, attending meetings in October 2003, August 2004 and April 2005 (Ventura).

Abel Villarreal, JAT Associates, Inc., 2658 Griffith Park Blvd. #310, Los Angeles, CA 90039. PH: (323) 913-2960. Project proponent, attending meetings in October 2003, August 2004 and April 2005 (Ventura).

William Warner, Warner Engineering, 7245 Joshua Lane, Yucca Valley, CA 92284. PH: (760) 365-7638. FAX: (760) 365-2146. Project Engineer, attending various coordination meetings, including the one in August 2004.

Talin Yacoubian, Yacoubian Law Offices, 725 S. Figueroa St., 38th Floor, Los Angeles, CA 90017. PH: (213) 955-7145. Ms. Yacoubian spoke with CMBC personnel on several occasions to facilitate completion of the HCP and associated documents. In addition, Ms. Yacoubian served as a liaison between all participating agencies and consultants. She further participated in the April 2005 meeting (Ventura) and contributed to document revisions.

Debbie Kinsinger, Eilar Associates, 539 Encinitas Blvd., Encinitas, CA 92024. PH: (760) 753-1865. Biologist. Ms. Kinsinger was contacted to consult on final revisions of the draft HCP when, in July of 2005, the Proponent was notified that CMBC would be unable to continue work on the project for an undisclosed period of time.

Appendix E.

**Application for State 2081 Incidental Take Permit
for Joshua Tree Recreational Campground**

Appendix F.

Certification of Intent to Obtain Performance Bond

I attest that within 60 days of receipt of the Incidental Take permit requested in this application, a performance bond, as described in Section 6.1.4 of this document, will be secured and a copy or proof of such will be forwarded to the Ventura Office of the U.S. Fish and Wildlife Service.

Signature

Date

Abel Villarreal

President

Name

Title

Appendix G.
USFWS Desert Tortoise Exclusion Fence Protocol