



6 December 2013

Terra Nova Planning and Research
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ATTN: John Criste

RE: Altamira (TT 18255) Update to March 2010 Report

Dear Mr. Criste:

As requested by Terra Nova Planning and Research, AMEC Earth & Environmental, Inc. (AMEC) conducted a biological assessment update for the 105-acre Altamira Project (Tentative Tract 18255), herein referred to as "Project", located in the Town of Joshua Tree, San Bernardino County, California (Township 1 North, Range 6 East, Section 34, as shown on the U.S.G.S. 7.5 minute *Joshua Tree North, California* and *Joshua Tree South, California* Quadrangles). The initial biological assessment for this Project (which was previously named "JT 105") was conducted by AMEC in April 2007, with an update performed in March 2010. This current update included a review of pertinent and current literature, and a site visit to assess current physical and ecological site conditions.

AMEC biologist Nathan T. Moorhatch conducted a field visit for this update on 5 December 2013. During the survey, representative areas of the site were assessed to document current site conditions. Weather conditions, species observed, and general site descriptions were recorded in addition to the taking of photographs (See Attachment A).

Prior to conducting the site visit, a review of pertinent literature was conducted to determine if any new records of special status biological resources have been recorded from the vicinity of the Project site. This included a review of the California Natural Diversity Data Base (CNDDDB) and California Native Plant Society (CNPS) Online Inventory of Rare and Endangered Plants (V7.10a 1.19.10).

The literature review revealed three CNDDDB records that had been added to the data base since the initial biological assessment. These include a single record each for the desert tortoise (*Gopherus agassizii*), Parish's club cholla (*Grusonia parishii*), and hoary bat (*Lasiurus cinereus*). These records are summarized below:

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A new record of desert tortoise was added to the database in 2009. This recent (2008) record is from the north side of Terrace Drive in the northwest area of the City of Joshua Tree (Township 1North, Range 6 East, Section 27), which is approximately one mile north of the Project site and north of State Highway 62.

Although no desert tortoise sign (i.e., burrows, scat, carcass, tracks, courtship rings or drinking depressions) was found during the initial biological assessment (which included a focused desert tortoise survey) and this update, the site nevertheless remains suitable habitat for this species. Focused desert tortoise surveys are considered valid for one year. The site was last surveyed for desert tortoise during AMEC's initial biological assessment in April 2007, which also recommended preconstruction surveys.

Parish's club cholla (*Grusonia parishii*) is designated as a CNPS List 2.2 species which means that the CNPS considers this cactus to be "rare, threatened, or endangered in California, but more common elsewhere" and that it is "fairly endangered in California". Although added to the database in September 2007, this record was from 1932 at the junction of 29 Palms to Quail Springs Road (Township 1 North, Range 6 East, Section 25), which is approximately 2 miles east of the Project site.

The initial biological assessment of the Project site resulted in the detection of four species of cacti, including two cholla, silver cholla (*Cylindropuntia* [formerly *Opuntia*] *echinocarpa*) and pencil cholla (*Cylindropuntia ramosissima*) onsite. Parish's club cholla was not detected. As a result, this species is considered to be absent from the project site.

In 2007, the CNDDDB added a record for the Hoary bat from 1960. This record was from Lower Covington Flat, Joshua Tree National Park (Township 2 South, Range 6 east, Section 1). Additional details regarding this occurrence (e.g., whether it was found roosting, while in migration, or foraging) were not provided.

The mainland population of the hoary bat is not federally or state listed as endangered or threatened, nor is it designated as a "Species of Special Concern" by either of these regulatory agencies. The species has, however, received a rank of G5, S4? for the mainland populations by the CNDDDB. The 'G5' designation indicates that the CNDDDB considers this status of this species to be globally "secure, common, widespread and abundant". The 'S4?' designation means that the species is "apparently secure - uncommon but not rare" and may have some "cause for long-term concern due to declines or other factors" subnationally. The '?' following the S4 designation indicates that the species numeric rank (4 in this case) may not be exact (CNDDDB 2009). The subspecies that occurs on the Hawaiian Islands is federally listed as endangered.

The hoary bat has the widest geographic range and occurs in the most diverse

variety of habitats of any bat found in the United States. This species range extends from northern Canada southward to Chile and Argentina. It also occurs on the Hawaiian Islands and in the Dominican Republic. Stray migrants have also been found in Bermuda, Iceland, and the Orkney Islands off Scotland. The hoary bat is a solitary tree-roosting species which is rarely encountered by humans (www.batconservation.org). Although this species occurs from the forests of the eastern U.S. through the arid deserts of the Southwestern continental U.S., it is most abundant in the forests and croplands of the Plains states and in forests of the Pacific Northwest. Diverse forest habitats with a mixture of forest and small open areas that provide edges seem ideal for this species (www.tpwd.state.tx.org).

AMEC considers there to be an extremely low potential for the hoary bat to occur (for roosting) on the Project site as the site represents only marginally suitable habitat for this species. Some of the onsite Joshua trees and possibly some of the Mojave yucca may provide potentially suitable roosting sites for this species. Joshua tree roosting by this species has been reported on at least one occasion. Desert microphyll woodland, a habitat more commonly used by this species for roosting, is not present on or adjacent to the site. This species is more likely to occur in the air space over the site, during migration. Migratory routes for this species, however, are not well known. AMEC considers there to be a low to moderate potential for this species to occur briefly over the site during migration or while foraging.

Onsite vegetation communities remain unchanged from the 2007 biological assessment. Dominant plant communities include Mohave Mixed Woody Scrub with intermixed Joshua Tree Woodland as described by Holland (1986) (AMEC 2007). A blue line stream, containing a mixture of Mohave Desert Wash Scrub and Mohave Creosote Bush Scrub, remains the most prominent geographic feature of the Project site. This wash and its onsite tributaries exhibited evidence of recent flow (i.e., moist/wet soils, drift patterns, scouring). The approximate amount of onsite jurisdictional waters of the State remains the same as the initial assessment (~9.73 acres).

The onsite Joshua trees (*Yucca brevifolia*), Mojave yuccas (*Yucca schidigera*), and honey mesquites (*Prosopis glandulosa*) are California native plant species that are regulated by guidelines for the protection of certain native desert plants provided by the San Bernardino County Development Code. Native desert plants that are regulated by the County include: 1) Smoke Trees (*Dalea spinosa*) and Mesquites with stems two (2) inches or greater in diameter or six (6) feet or greater in height; 2) woody species of the family Liliaceae (century plants, nolinias, and yuccas); 3) Creosote (*Larrea tridentata*) rings, ten (10) feet or greater in diameter; 4) All Joshua trees (*Yucca brevifolia*). As a condition of project grading plans, all onsite special-status plants should be assessed and mapped. A site landscape plan should also be prepared to address the treatment of these special-status species before, during and after Project implementation.

The site is still surrounded on three sides by residential development, and continues to receive at least a moderate amount of human disturbance (i.e., dirt roads and trails receiving equestrian use, foot traffic, dog walking, and off road vehicles; trash; partial vegetation clearing; and domestic animal use).

The potential for occurrence for the special status species identified by the initial biological assessment remain the same. One additional species that has recently been added to the CNDDDB, hoary bat, has a very low potential to occur. Parish's club cholla, a recently added historic record from the site's vicinity, is considered absent.

Potential for the desert tortoise and burrowing owl to occur onsite still exists. In order to ensure compliance with both federal and state Endangered Species Acts, and Fish and Game (California Department of Fish and Wildlife) code, focused and preconstruction clearance surveys for these species conducted in accordance with the respective federal and state survey guidelines would be required prior to, and/or as a condition of approval, by any Project grading permits. If either of these species are found onsite, additional federal and state "take" permits and conditions would be required prior to any project-related site disturbance.

The Migratory Bird Treaty Act (MBTA) makes it unlawful to pursue, capture, kill, and/or possess, or attempt to engage in any such conduct to any migratory bird, nest, egg or parts thereof. Impacts to nesting birds can be avoided by either: 1) avoiding grading and/or vegetation clearance during the nesting season (which is generally February 1 through August 15); or 2) conducting a nesting bird survey to determine if and where birds are nesting and avoidance of the nesting areas until nesting has been completed (e.g., phased development). If impacts cannot be avoided, permits for incidental take of nesting birds may be granted by the Secretary of the Interior. Project grading permits should require MBTA compliance as a condition of approval.

If you have any questions regarding this letter and/or the project, please do not hesitate to contact me at the phone number, e-mail address, or mailing address below.

Sincerely,

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