

Memo

To: Brian Thorne, LMC
From: Philip Henderson, Tetra Tech
Cc: Thomas Villeneuve, Tetra Tech
Date: 6/8/2012
Re: **Burrowing Owl at LMC Beaumont Site 1**

Introduction

The burrowing owl (*Athene cunicularia*) is a small (9 to 11 inches) owl that inhabits relatively open environments such as grassland areas, prairies, desert, farmland, and airfields that contain bare ground or low growing vegetation. Burrowing owls typically inhabit burrows made by other animals such as ground squirrels (*Spermophilus beecheyi*) and badgers (*Taxidea taxus*). They are also found in structures such as woodpiles, cement, earthen berms, and culverts that give them cover from predators. Burrowing owls eat a variety of invertebrates, including adult beetles, larval and adult moths, crickets, flies, and ants, but will occasionally take small mammals, birds, amphibians, and reptiles.

Breeding takes place any time from late February to August, while courtship occurs as early as December in California. Burrowing owls lay their eggs underground inside an occupied burrow and the female owl incubates the eggs for up to 30 days at which point the eggs will hatch and the young will emerge from the burrow several weeks later.



Photo 1 – The burrowing owl seen in the burn pit area near monitoring well MW-26.

The burrowing owl has lost an extensive amount of habitat due to urban development and the elimination of burrowing mammals through control programs. Habitat loss has been identified as the primary factor in the species decline. Additional threats to the species include habitat fragmentation, predation, pesticides and contamination. This is just a general statement regarding the species. However, there are shallow perchlorate impacts in the burn pit area but the Environmental Risk Assessment did not show any impacts in the BPA to ecological receptors from perchlorate.

History of the Species at LMC Beaumont

A single burrowing owl was first identified in a burrow at Potrero Canyon Unit (Lockheed Martin Beaumont Site 1) along the main road into the site in 2009 by a biological monitor, and was present again in the same location in 2010. On both of these occasions, Tetra Tech personnel continued to drive past the burrow without stopping and no disturbance to the owl was recorded. On both occasions the lone owl left after approximately one month on the site.

On February 28, 2012, another lone burrowing owl (possibly the same individual) was spotted in the burn pit area near monitoring well MW-26 in the mouth of a burrow (Figure 1). Four surveys were conducted California Department of Fish and Game (CDFG) protocols (CDFG, 1993 & 2012) over several weeks following the initial sighting of the burrowing owl. During the first official survey, the burrowing owl was present in the burrow mouth. However, during subsequent surveys the owl was not seen and it appeared that the burrow was only occupied by California ground squirrels. The burrow was also monitored during routine site maintenance and groundwater sampling activities in nearby areas. Based upon the surveys and monitoring of the burrow it was determined that the lone burrowing owl was not a part of a breeding pair and may have been passing through the site similar to the occurrences in 2009 and 2010. Since the last recorded sighting at the burrow (February 29th), no other burrowing owl sign has been seen in the area of the burrow or in nearby areas of the site. The survey dates for the burrowing owl observed at the Potrero Canyon Unit were February 29, 2012, March 6, 2012, March 14, 2012, and April 18, 2012.

Management Implications for LMC Beaumont

Burrowing owl is listed as a California Species of Concern (SSC) by CDFG. This designation is essentially administrative and carries no formal legal status. The intent of designating SSCs is to focus attention on animals at conservation risk by the Department, other State, local and Federal governmental entities, regulators, land managers, planners, consulting biologists, and others; and to achieve conservation and recovery of these animals before they meet California Endangered Species Act criteria for listing as threatened or endangered.

Occupied nest sites are protected under the federal Migratory Bird Treaty Act (MBTA) and cannot be disturbed. According to the MBTA, active nest sites must not be disturbed until the breeding pair and their fledglings have left the nest and the nest becomes inactive. Inactive nests are not protected by the MBTA and can be removed without being in violation of the MBTA.

Site 1 is mostly owned and managed by the CDFG and is a "core area" for species' protection under the Western Riverside Multiple Species Habitat Conservation Plan (MSHCP). LMC retained 565 acres of the site, referred to as the Conservation Easement. The burrowing owl was observed within the former Burn Pit Area, which is located within this Conservation Easement owned by LMC. Site 2 has recently been placed in the MSHCP planning area due to its purchase by Riverside County. Monitoring these areas within the MSHCP area is the joint responsibility of U.S. Fish and Wildlife Service (USFWS), CDFG, and the Riverside County. Because CDFG is the agency with the responsibility to manage this species as described above, they will have particular concern over protecting some of the last known populations in inland California.

LMC is under no specific legal obligation to protect individuals of this species during its activities at Sites 1 and 2. However, Tetra Tech recommends that it is in the best interest of LMC to show good faith effort to assist these agencies to protect this species at both sites. Management during project activities for sensitive species is generally to (1) avoid any impacts if possible; (2) minimize impacts, and (3) mitigate for impacts. Avoidance would mean avoiding burrows occupied by breeding pairs of burrowing owls whenever possible. Tetra Tech biologists established exclusion areas around these burrows when they are found and maintained these exclusion areas until the determination can be made that the owls are not breeding, have completed breeding, or have left the area. Minimizing impacts would mean having biological monitors clear areas prior to the commencement of work each day. It would be extremely difficult to provide mitigation for this species (i.e. create habitat) beyond the implementation of additional protective measures on lands already inhabited by them.

In specific cases such as when the individual owl was identified in 2009, 2010, and again in 2012, a burrow can be carefully excavated by hand with a biologist present if surveys completed according to protocols show that no breeding or nesting has occurred in the burrow, especially after the individual bird has abandoned the burrow. Once a burrow is excavated, should no live animals be found inside, it will be backfilled with native soil to prevent future use. Based upon survey results, the formerly occupied burrow in the burn pit area near monitoring well MW-26 will be excavated in the aforementioned manner as soon as possible. A biologist will be present to

minimize impact to biological resources and to ensure no take of Stephen's Kangaroo Rat, which may also be in the vicinity of the burrow. It is likely that if the individual owl returns it will establish another burrow nearby and continued awareness and diligence on the part of Tetra Tech and their contractors will be employed to identify any new burrowing owl locations early and complete protocol surveys to determine nesting status if warranted.