



June 30, 2009

Friant Water Authority  
332 Norwalk  
Delano, CA 93215  
Attn: Mr. Albert Avila

**RE: Survey of the property located at Mile Post 11.10 of the Friant Kern Canal for Channel Maintenance**

Dear Al:

#### **INTRODUCTION**

At your request, M.H. Wolfe *and Associates* Environmental Consulting, Inc., conducted a preconstruction survey on June 8, 2009, at mile post 11.10 on the Friant-Kern Canal underdrain. The proposed project is the removal of trees and other vegetation located at the mile post which are growing in a way which is believed to be interfering with the canal operations and maintenance activities and are obstructing the flow of the drainage. The drainage located at mile post 11.10 is an underdrain channel, which means that it flows under the canal in an engineered culvert. Habitat for this area can best be described as non-native grassland habitat and riparian habitat.

Threatened and/or endangered species that have been previously seen and documented in the area by the California Natural Diversity Database (2009) include the San Joaquin kit fox, vernal pool fairy shrimp and California tiger salamander. The California tiger salamander has been observed in the vicinity of mile marker 11.10 of the canal during surveys of several aquatic ponds adjacent to the Friant-Kern Canal (Brode 1974). California Species of concern previously documented in the area include the western spadefoot, spotted bat and western pond turtle. In addition, numerous bird species protected by the Migratory Bird Treaty Act (MBTA) are known to occur in the area as either residents or migrants. These birds may nest in trees, shrubs or on the ground near the proposed project area. As a result of these possible occurrences of sensitive species in the area, a biological survey of the area was necessary prior to any tree removal activities to ensure no sensitive species are harmed, in accordance with the O&M Guidelines, which are essentially the biological opinion for the canal, and in this case, the Section 1600 notification also pertains.

## METHODS

On June 8, 2009, pedestrian transects were walked by a qualified biologist throughout the area to be affected. These transects were walked in a meandering fashion to ensure nearly 100 percent coverage of the proposed project site. Notes of current land use conditions, species present (or their sign) and surrounding land use were recorded. Sign of wildlife includes direct observations, scat, tracks, feather/fur, prey remains, burrows/nests and any other evidence of wildlife presence. A preactivity survey field completion form is enclosed for the proposed project site.

## RESULTS

No plant species of concern were observed within the project boundaries. Only one tree, a small fig tree (*Ficus carica*), was observed during surveys of the area. Other plant species observed within the fence boundary included wild oat (*Avena fatua*), turkey mullien, or doveweed, (*Eremocarpus setigerus*), brome (*Bromus sp.*), milk thistle (*Silybum marianum*) and goats head (*Tribulus terrestris*) (Figures 1-3), as well as cattails (*Typha sp.*) in relation to the water (Figure 4). Common duckweed (*Lemna minor*) was observed covering the water (Figures 4 and 5).

Of the wildlife species observed during the survey of the area, a few different bird species were observed, including one California species of special concern, the tricolor blackbird (*Agelaius tricolor*). Other bird species observed included western meadowlark (*Sturnella neglecta*), brewers blackbird (*Euphagus cyanocephalus*) and red-tailed hawk (*Buteo jamaicensis*). No nesting activities were observed for any of these species in relation to the tree surveyed or the cattails and other vegetation, inside the canal ROW. In addition to bird species, other wildlife species observed include side-blotched lizard (*Uta stansburiana*) and bullfrog (*Rana catesbeiana*), as well as mouse holes.

Several species that exist on the CNDDDB species of concern list, though not observed during field surveys, still possess the potential to occur within the project boundary. These species include San Joaquin kit fox (*Vulpes macrotis mutica*), spotted bat (*Euderma maculatum*), California tiger salamander and possible vernal pool fairy shrimp. Although no fairy shrimp were observed during the survey, multiple surveys are required to determine the presence of both California tiger salamander and fairy shrimp species. No roost habitat for spotted bat is present, but the species may forage in the area.



Figure 1. Vegetation present in the drainage downstream of the canal.



Figure 2. Vegetation present in the drainage downstream of the canal, with property line fence in the background for reference.



Figure 3. View of drainage from downstream in the direction of the canal.



Figure 4. Cattails, duckweed and other vegetation present at surface of water.



Figure 5. View of water present in drainage with view of duckweed covering portions of the water.

## RECOMMENDATIONS

The mile post will require additional surveying in accordance with agency protocol, as the presence of sensitive species, such as California tiger salamander (*Ambystoma californiense*) and vernal pool fairy shrimp (*Brachinecta lynchi*), need to be evaluated to determine potential effects to any of the species in question if any soil or channel disturbance is required. This applies in particular to the California tiger salamander, which has been observed in the vicinity of mile marker 11.10 of the canal during surveys of several aquatic ponds adjacent to the Friant-Kern Canal (Brode 1974). More specifically during these surveys, California tiger salamander was observed at a vernal pool less than three and a half miles further down the canal. The location in which this species was found was described as being the classic example of the habitat typical for this species. Additionally, surveys conducted by the Endangered Species Recovery Program (ESRP) in 2004 observed the California tiger salamander in the vicinity of mile marker 11.10, with six pools from milepost 0 to 18 containing California tiger salamander larvae (ESRP 2004). However, though these survey results show this species to have occurred in the vicinity of the area being discussed, precise locations of these observations were not provided by the ESRP, and it cannot be ruled out that this was not one of the locations being referred to, but is close enough for the species to have dispersed to since the ESRP surveys. It should be noted that, while the species was found to occur during surveys by both of the aforementioned studies, neither of these studies were conducted based on the protocol for surveying for the

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California tiger salamander. Consequently, neither study can be used to support a negative finding.

As a result of the California tiger salamander having a history of occurrence in the area of mile marker 11.10, before any action can be taken in this area, protocol for surveying for California tiger salamander must be followed. This survey methodology employs the use of drift fencing and pitfall traps, based on the California Department of Fish and Game (CDFG) protocol as of October 2003 (CDFG 2003). These arrays should be approved and constructed by October 15. The CDFG requires that 20 nights of surveys under the proper conditions be conducted from October 15 to March 15, and larvae surveys during spring for two consecutive years. Other methods, such as visual egg surveys, night driving, nocturnal surveys, fiber optic scoping and cover-boards, may be used to determine presence of the California tiger salamander, but these methods will not support a negative finding of this species. Please refer to the full survey protocol for this species, which was included in the report for Mile Post 3.02.

The following general guidelines for the work will be implemented as well.

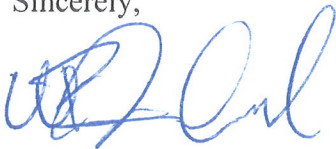
- 1) Although no nests were observed during our survey, new nests may be constructed at any time. If nests are observed when work is to commence, rescheduling of vegetation removal will be necessary. In this case, conduct work outside of bird nesting season, which usually is March 1 to August 30. No bird nests with eggs or young may be disturbed.
- 2) Drive slowly on the project site. Inspect in and under vehicles and equipment prior to moving, as wildlife often enter, sleep under and/or dig under equipment and vehicles.
- 3) Train employees so they can recognize sensitive species and inform them of avoidance requirements to minimize risks to the animals if any are encountered during construction.
- 4) Keep all plastic trash and foodstuffs in covered or closed containers to preclude attraction of wildlife to the project site where they may be harmed. Remove solid waste from the project site on a regular basis in accordance with local regulations.
- 5) Prohibit feeding of all wildlife on the project site. No dogs or other pets should be allowed on the project site.
- 6) Avoid covering or damaging any new burrows that may appear on the project site and call a qualified biologist to determine the appropriate actions to be taken if a new potential burrow is created.
- 7) Remove revegetation on ditch slopes on opposite sides in alternating years per the Section 1600 permit.

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We will proceed with protocol level surveys to ascertain the presence of tiger salamander surveys this fall. In addition, a second trip to search for fairy shrimp will be conducted. Systematic survey for these species would be appropriate to help prevent potential delays of future work.

If you have any questions or concerns, please do not hesitate to contact us.

Sincerely,



Jeff Cornell  
Cultural Resource Specialist and Technical Writer

cc: Mike Lang, Orange Cove Office  
Eric Quinley, Maintenance Manager, Lindsay

Enclosures

Literature Cited:

California Department of Fish and Game (CDFG). 2003. Interim Guidance on Site Assessment and Field Surveys for Determining Presence or a Negative Finding of the California Tiger Salamander. California Department of Fish and Game, Sacramento, CA. September 2003.

Brode, J. 1974. Survey of Aquatic Ponds Adjacent to Friant Kern Canal. Department of Fish and Game, Inland Fisheries Division, Rancho Cordova, CA.

Endangered Species Recovery Program (ESRP). 2004. DRAFT Results from Friant-Kern Canal vernal pool surveys.

