Ecological Sciences, Inc., "Results of Focused Arroyo Toad Surveys, San Francisquito Creek, Santa Clarita, California" (August 25, 2004; 2004D)

Original in Matt Carpenter's Office

2004

ECOLOGICAL SCIENCES, INC.

August 25, 2004

Mr. Mark Subbotin, Senior Vice President
Newhall Ranch Company
23823 Valencia Boulevard
Valencia, CA 91355

SUBJECT: ***Results of Focused Arroyo Toad Surveys, San Francisquito Creek, Santa Clarita, California***

Dear Mr. Subbotin:

This letter report summarizes methodology and findings of focused protocol surveys for the federally listed endangered arroyo toad [*Bufo (microscaphus) californicus*-herein AT or arroyo toad] conducted by Ecological Sciences, Inc. The surveys were conducted to determine the presence/absence of the AT within the subject study area. All surveys followed federal U.S. Fish and Wildlife Service (Service) protocol (2001). This represents the second consecutive year of protocol surveys in San Francisquito Creek as required by the USACOE in their permit modification letter dated June 23, 2003, and in accordance with the November 15, 2002 Service Biological Opinion Conservation Recommendation No.1.

Introduction

Surveys were conducted in potentially suitable habitat in a portion of a ±15,000-foot reach of San Francisquito Creek, from the confluence with the Santa Clara River north to Copperhill Bridge. Regional and site vicinity survey location maps are included as ***Plate 1*** and ***Plate 2***, respectively. The survey area is located on the Newhall, California U.S. Geological Survey (USGS) 7.5-minute quadrangle map.

General Arroyo Toad (AT) Ecology

The AT was listed as an endangered species by the Service on December 16, 1994 and is also considered a California species of special concern. A federal Recovery Plan was prepared in 1999 and critical habitat was defined in February 2001. This species is restricted to the coastal slopes of southern California and northern Baja California, Mexico, except for one small, isolated population in the Mojave River. The AT averages 5 to 8 cm in length, and has a greenish-gray or tan coloration. It is restricted to rivers with shallow, gravelly pools adjacent to sandy terraces. Eggs are deposited in shallow pools with sand or pea gravel substrate overlain with flocculent silt. These pools have minimal current and little or no emergent vegetation. Juveniles and adults forage for insects on sandy terraces with nearly complete coverage of cottonwoods, oaks, and willows (USFWS 1994).

Many areas that may have historically contained suitable breeding habitat for AT have been degraded by dam and flood control construction, off-road recreation, urbanization, mining, and introduced predators (USFWS 1999). This species is currently found in relatively small, isolated populations. Most remaining populations of arroyo toad occur on privately owned lands. Less than 50 percent of the known extant populations of arroyo toad occur on the Los Padres, San Bernardino, and Cleveland National Forests (USFWS 1994).

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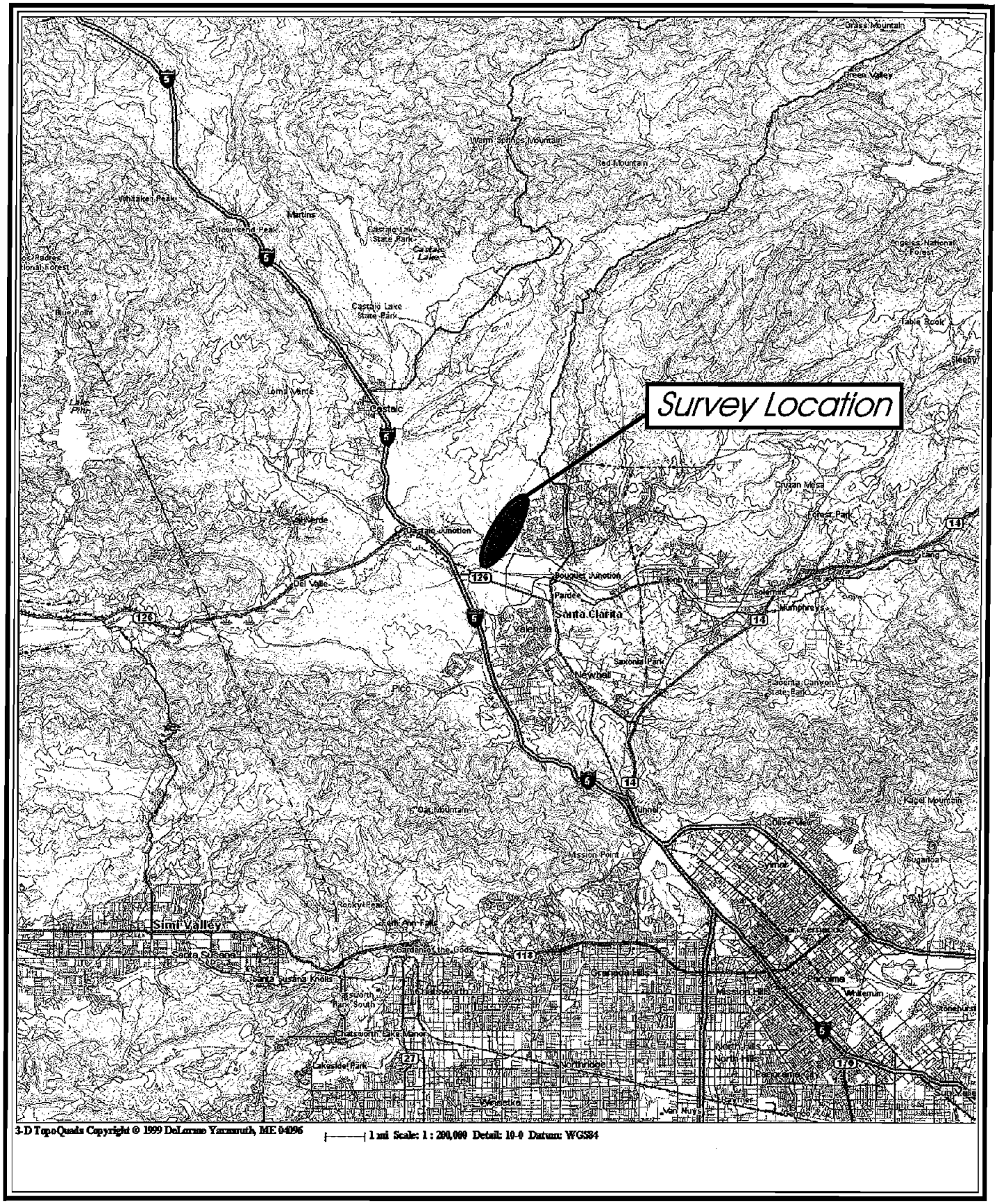

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plate 1

Regional Site Location

NRMP-San Francisquito Creek

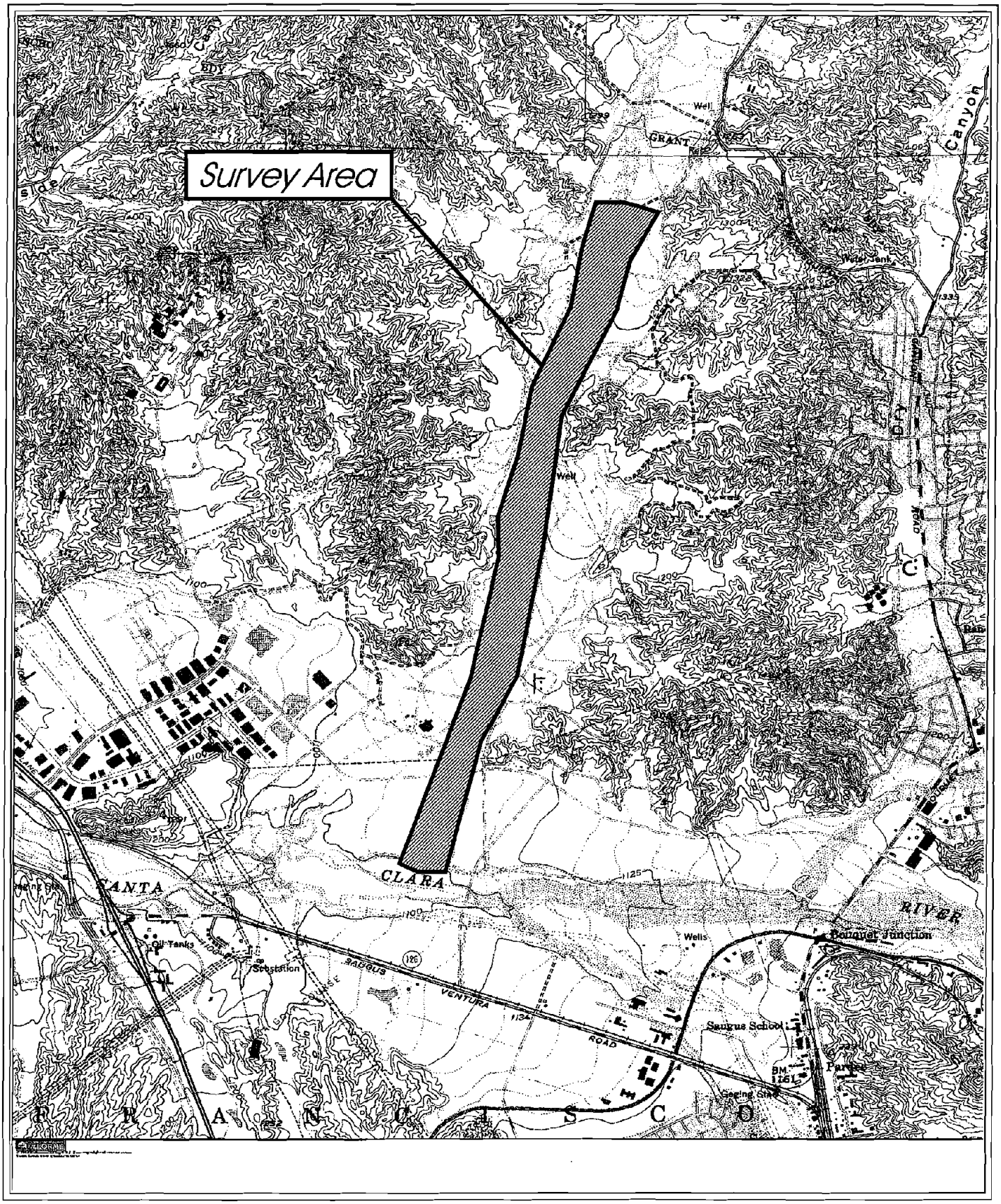

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plate 2

Site Vicinity

NRMP-San Francisquito Creek

AT Critical Habitat (CH)

The currently proposed CH for AT (Federal Register, April 28, 2004) includes portions of the Santa Clara River, Castaic Creek, San Francisquito Creek, and adjacent uplands (collectively referred to as Unit 6). Within Unit 6, Subunit 6b (subject study area) includes Castaic Creek from the downstream edge of The Old Road right-of-way (adjacent to Interstate 5) down to the confluence with the Santa Clara River, the Santa Clara River from the confluence with Bouquet Creek down to the confluence with Castaic Creek, and San Francisquito Creek from Drinkwater Canyon downstream to the confluence with the Santa Clara River (Federal Register, Proposed Rule, Vol. 69, No. 82, April 28, 2004).

Primary Constituent Elements (PCE)

Criteria used by the Service to select critical habitat includes evaluation of an area to determine the presence of 'primary constituent elements,' as defined at 50 CFG 424.12(b) (USFWS 2001a). These elements include physical and biological features that are essential to the conservation of the species, and that may require special management and protection (USFWS 2001a).

Primary constituent elements (PCE) for the arroyo toad include aquatic breeding habitats and non-breeding upland habitats. These elements include: **(1) *A hydrologic regime*** that supplies sufficient flowing water of suitable quality and sufficient quantity to sustain eggs, tadpoles, metamorphosing juveniles, and adult breeding toads; **(2) *Low-gradient stream segments*** (typically less than 4 percent) with sandy or fine gravel substrates which support the formation of shallow pools and sparsely vegetated sand and gravel bars for breeding and rearing of tadpoles and juveniles; **(3) *A natural flooding regime*** or one sufficiently corresponding to a natural regime that will periodically scour riparian vegetation, rework stream channels and terraces, and redistribute sands and sediments, such that adequate numbers and sizes of breeding pools and sufficient terrace habitats with appropriate vegetation are maintained; **(4) *Upland habitats*** (particularly alluvial streamside terraces and adjacent valley bottomlands that include areas of loose soil and dependable subsurface moisture where toads can burrow underground and avoid desiccation) of sufficient width and quality to provide foraging and living areas for subadult and adult arroyo toads; **(5) *Few or no nonnative species*** that prey upon or compete with arroyo toads, or degrade their habitat; **(6) *No man-made barriers*** that completely or substantially impede migration to over-wintering sites, dispersal between populations, or recolonization of areas that contain suitable habitat; and **(7) *Limited human-related disturbance***.

Methodology

Pursuant to federal survey protocol, six (6) surveys were conducted within the subject study area, with at least seven (7) days between each survey. AT surveys were conducted both during daylight hours and at night between one hour after dusk and midnight. Each day and nighttime AT survey was conducted within the same 24-hour period. One or two biologists systematically surveyed the survey area at a time. Scott Cameron and Ron Francis conducted the survey effort. Surveys were conducted between late March and June, with at least one survey conducted per month during April, May, and June per protocol. Daytime surveys included an assessment of arroyo toad habitat suitability as well as searches for sign of AT presence (e.g., eggs, larvae, or juveniles), and for the purpose of identifying the most likely calling sites for any adult males potentially present in the area. Extreme caution was taken to avoid inadvertent disturbances to AT potentially presence within adjacent stream areas.

All nighttime surveys were conducted when air temperatures were at least 55 degrees Fahrenheit. Periods of full moon phases were generally avoided. Surveys were conducted each night from about 8:30 p.m. to approximately 12:00 a.m. Weather conditions were generally calm and clear throughout the survey effort with just a few days of relatively overcast conditions. The site was surveyed by walking slowly and carefully along stream banks or within the stream itself when necessary. Periodic stops were taken to listen for calling toads at 15-minute intervals or as appropriate depending upon individual site conditions. Surveys were conducted as quietly as possible to maximize the potential to hear calling AT. Handheld flashlights and headlamps were used to visually locate AT within any potential breeding pools

and along stream banks. In addition to documenting arroyo toad data, all aquatic herpetofauna observed during both day and night surveys were recorded. Surveys were initiated on March 22 and completed on June 28, 2004 as follows: Survey One (March 22); Survey Two (April 4); Survey Three (April 21); Survey Four (May 10); Survey Five (May 30); and Survey Six (June 28).

Periodic site visits were performed by Scott Cameron, Dave Crawford, and Ron Francis in an off-site area known to be occupied by arroyo toad to evaluate seasonal status. The visits were initially conducted to determine if and when adult males were calling, and later to determine larval stages of development. The area surveyed included a portion of Castaic Creek that is located approximately one mile north of the Castaic reservoir on U.S. Forest Service land. During the initial visit, arroyo toads were directly observed and heard vocalizing. No tadpoles were recorded in the upper reaches in mid-April, but an extensive search was not conducted. Two subsequent visits in late April and late May did not detect the presence of adults or tadpoles, and the upper reaches of the area previously visited no longer had surface flow, and only a few, stagnant, shallow pools remained.

Existing Study Area Conditions

The survey area supports a mosaic of riparian and terrace habitats within the Creek channel, barren sandbars, small braided channels, and various densities of riparian scrub and woodland that are consistent with many AT primary constituent elements (PCE 2-4). However, no hydrological regime (PCE 1) was present within the Creek since surveys were initiated in late March 2004. Some water was recorded in San Francisquito Creek, primarily in the extreme southern Santa Clara River confluence area (although not sufficient flowing water of suitable quality and quantity). This area supports swamp-like ponded areas for a short distance upstream into San Francisquito Creek, but generally does not support suitable AT breeding or over-wintering habitats. The confluence area supports dense riparian and wetland vegetation that may provide habitat for adult AT along the periphery, but vegetation present within the Creek would mostly be considered too dense for AT occupation.

Further upstream (north) into San Francisquito Creek, the stream channel width ranges from approximately 500 feet to nearly 1,000 feet. The channel appears to be of sufficient low gradient to support shallow low-flow channels, and it periodically does so following major storm events. The only water currently present (upstream of the confluence area) is a result of storm drain discharge from adjacent developments at multiple outfall locations along the Creek. The small amount of discharge dries in 100-300 feet prior to reaching the primary low-flow channel. Flow is confined to small, shallow channels varying between one and three feet in width. Much of the storm drain runoff is heavily choked with algae, emergent vegetation, and/or a dense riparian canopy. These areas are not considered suitable for breeding AT. Primary constituent elements 5-7 would be considered as marginal to absent in some areas of the drainage.

Upland terraces in the survey area either are or have been in agricultural production for several decades. Both sides of the Creek currently support existing development (south of Newhall Ranch Road Bridge) or have been graded for projects in progress (north of Newhall Ranch Road Bridge). Additionally, concrete bank stabilization structures are in place along the west bank as well. As such, very little upland habitat outside of the banks of the Creek support even marginal habitat for over-wintering AT.

Survey Results/Conclusion

No direct observations or vocalizations of AT were recorded during the focused survey effort. In addition, no egg masses or other sign of AT were recorded within the subject survey area. Common amphibian species recorded during the focused AT survey effort included adults, juveniles, and tadpoles of the western toad (*Bufo boreas*) and Pacific chorus frog (*Pseudacris regilla*) associated with areas of nuisance runoff and where water was present in the confluence area of the Santa Clara River. No sensitive aquatic species were recorded during the survey effort.

No suitable AT breeding habitat is currently present within the survey area due to the absence of a

hydrological regime (PCE 1), a habitat component required for the existence and survival of the arroyo toad. The nearly complete absence of any standing or flowing water north of the immediate confluence area indicates that the upper portions of the Creek are not currently suitable to support or sustain a viable breeding AT population. Another detrimental factor that was frequently detected was the use of off road vehicles (ORV) within the drainage (PCE 7). ORV tracks were observed on many sandbars, terraces and historic low flow channels. In addition, primary constituent elements PCE 5-6 would be considered as marginal to absent in portions of the drainage. Moreover, no AT were recorded in this portion of San Francisquito Creek during focused surveys conducted in 2003 (Ecological Sciences 2003). The nearest recent AT observation (2003) known to Ecological Sciences is located in the Santa Clara River, near the confluence with San Francisquito Creek.

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If you have any questions regarding results presented in this report, please don't hesitate to call us at the letterhead address.

Sincerely,

Ecological Sciences, Inc.

Scott D. Cameron
Principal Biologist

References

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