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August 31, 2003

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

SUBJECT: Results of Focused Arroyo Toad Surveys, NRMP Project Area, 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] 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).

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 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).

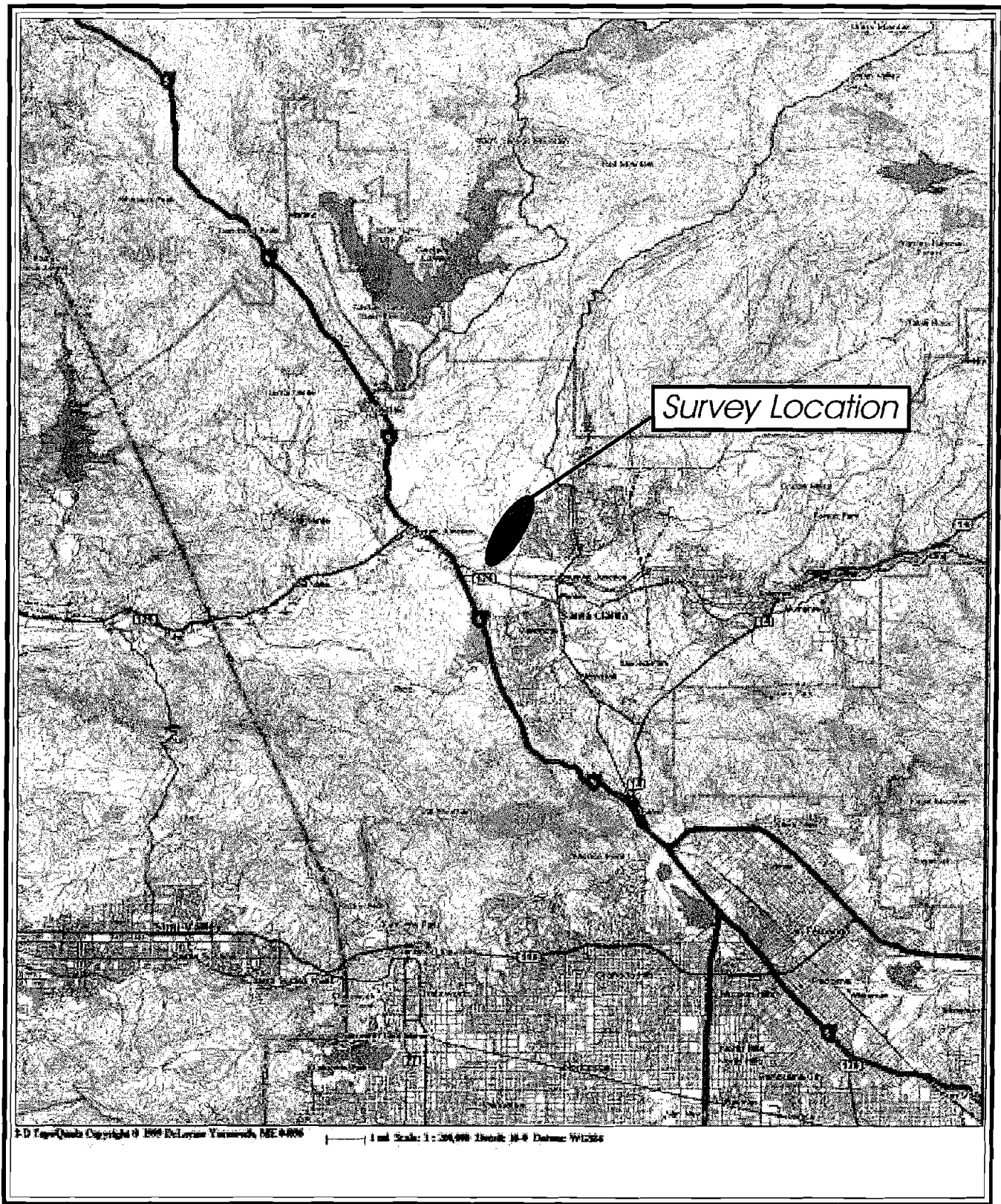


plate 1



August 2003

Regional Site Location NRMP

AT Critical Habitat

USFWS had identified 22 critical habitat units for the recovery of the arroyo toad. The unit nearest to the subject study area was Unit 6, the Upper Santa Clara River Basin, which consisted of portions of Castaic and upper San Francisquito Creeks, and adjacent uplands. However, the USFWS final critical habitat designation issued for the arroyo toad (February 2001) was vacated on October 30, 2002, by the United States District Court for the District of Columbia [*Building Industry Legal Defense Foundation v. Norton*, 231 F.Supp.2d 100 (D.D.C. 2002)].

Primary Constituent Elements

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 for the arroyo toad include aquatic breeding habitats and non-breeding upland habitats. These elements include: **A hydrologic regime** that supplies sufficient flowing water of suitable quality and sufficient quantity to sustain eggs, tadpoles, metamorphosing juveniles, and adult breeding toads; **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; **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; **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; **Few or no nonnative species** that prey upon or compete with arroyo toads, or degrade their habitat; **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 **Limited human-related disturbance**.

Methodology

Guidelines for the AT do not presently require a permit under section 10 (a) (1) (A) of the Endangered Species Act of 1973, as amended. However, during the course of surveys conducted for AT, identification, and therefore direct examination, of AT juveniles and tadpoles may be necessary during spring/summer surveys of aquatic habitats. Accordingly, all field surveys for AT were conducted pursuant to the most recent Service guidelines under the authority of federal section 10(a) permit number TE-808242-4 issued to Scott Cameron, Principal Biologist of Ecological Sciences, Inc. Dave Crawford also provided some survey assistance.

At least six (6) surveys were conducted within the subject study areas, with at least seven (7) days between each survey. Additionally, 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. Surveys were conducted between late March and early 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). 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. As with the daytime surveys, every precaution was taken not to disturb or create silt deposits within potential breeding pools, and care was taken not to disturb or injure potentially occurring AT adults, juveniles, tadpoles, or egg masses. Periodic stops were taken to listen for calling AT 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 potential breeding pools and along stream banks.

Surveys were initiated on April 12 and completed on June 12, 2003 as follows: Survey One (April 12-13); Survey Two (April 22-23); Survey Three (April 29-30); Survey Four (May 14 and 17); Survey Five (May 28-29); and Survey Six (June 11-12).

Existing Study Area Conditions

San Francisquito Creek (Santa Clara River Confluence to Copperhill Drive)

Water was present in San Francisquito Creek only in the extreme southern Santa Clara River confluence area. The confluence of the River and the Creek supports dense riparian and wetland vegetation that may provide habitat for adult AT along the periphery, but vegetation would mostly be considered too dense for AT occupation. Additionally, the area at the confluence supported 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.

Further upstream (north) into San Francisquito Creek, most of the primary constituent elements of suitable AT habitat were present except for the hydrologic regime. There was no water present north of the confluence area during the focused survey effort (April through June). The stream channel width throughout the survey area ranged from approximately 600 feet to nearly 1,000 feet. The channel appears to be of sufficient low gradient to support shallow low-flow channels with suitable substrate, and it periodically does so following major storm events. Surveys indicated the presence of a series of small braided channels in the dry sand. As such, adequate terrace habitats could potentially be formed, but it is apparent that water is only present only during the rainy season and only infrequently extends into the breeding season.

There is very little suitable upland habitat present outside the banks. Upland terraces in the survey area either are or have been in agricultural production for several decades. Both sides of the River 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.

Survey Results

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 areas. Common amphibian species recorded during the focused AT survey effort included adults, juveniles, and tadpoles of the Pacific chorus frog (*Pseudacris regilla*) and tadpoles and juveniles of the western toad (*Bufo boreas*) at the confluence area only. A few non-native African clawed frog tadpoles were also observed in some of the sheltered pools present in the confluence area. No sensitive aquatic species were recorded during the survey effort.

Although many of the primary AT constituent elements are present in the Creek, the absence of 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. The nearest recorded AT observation known to Ecological Sciences (May 2001) is located in high quality habitat 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

Impact Sciences, Inc. 2001. Results of Focused Surveys for Arroyo Toad and Special-Status Aquatic Reptiles and Amphibians within the Natural River Management Plan Area Valencia, California. September 19.

U.S. Fish and Wildlife Service, 1994. *Determination of Endangered Status for the Arroyo Southwestern Toad; Final Rule*. 50 CFR Part 17, RIN 1018-AB97.

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U.S. Fish and Wildlife Service, 2001. *Survey Protocol for the Arroyo Toad*, Ventura Fish and Wildlife Office. March 30.

U.S. Fish and Wildlife Service. 2001a. 50 CFR Part 17, *Final Designation of Critical Habitat for the Arroyo Toad; Final Rule*.

