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2003

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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, Castaic 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] 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 Castaic Creek ($\pm 2,700$ feet in length-herein Castaic Creek Site). The survey area included a $\pm 10,800$ -foot reach of Castaic Creek, from State Route 126 upstream to the Interstate 5 Freeway. 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).

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. Subunit 6b included Castaic Creek below Castaic Lake (including the subject study area) to the confluence with the Santa Clara River. 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

Castaic Creek from State Route 126 to Interstate 5 Bridge

This reach supports a mosaic of riparian and terrace habitats within the Castaic Creek channel, including flowing water (for part of the survey season), barren sandbars, and various densities of riparian scrub and woodland. While water was being released from the Castaic Lagoon, this reach supported at least a single and sometimes two small channels ranging from shallow and open to relatively deep and heavily shaded by a vegetative canopy. Several sandbars and sandy/gravelly terraces are present between the stream banks. The channel ranges in width from approximately 240 feet to about 900 feet. Shortly after the cessation of lagoon water releases, the Creek rapidly changed from a flowing channel to a series of drying pools. By the last survey date, only a few scattered pools remained, primarily located in shaded areas. These pools averaged two to three feet deep, less than 10 feet in length, and two to four feet in width.

When flowing water was present in the Creek, all of the primary constituent elements for AT habitat were present within the riverbanks along most of the study area. Additionally, this portion of the Creek supports a sufficiently low gradient and patches of sandy or fine gravel substrates. A few shallow pools and some suitable sand/gravel bars were also present. Though water was present for part of the breeding season, the amount of water present is artificially controlled. As described, the Creek quickly dried up after upstream water releases were stopped, essentially eliminating much of the previously suitable breeding sites. Although no AT were observed or detected in this reach during the survey effort, if they were to have deposited egg clutches in suitable habitat during April or May, most of them probably would not likely have survived to metamorphose before the breeding pools dried.

There are suitable upland terrace habitats between the banks of the Creek to support foraging and over-wintering AT. Portions of the stream banks currently contain large rip-rap boulders and concrete slabs in association with each of the three bridge structures present in this survey reach. In those areas such structures are likely to impede any upland movement of AT. The remaining portions of stream banks would not likely impede migration out of the stream channel. However, nearly all of the uplands outside the stream banks are either developed or are heavily disturbed through agricultural or pre-grading activities. As such, very little habitat outside of the banks of the stream support even marginal habitat for over-wintering AT.

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 western toad (*Bufo boreas*) and Pacific chorus frog (*Pseudacris regilla*). In addition, adults, tadpoles, and juveniles of the non-native African clawed frog (*Xenopus laevis*) were observed in



some of the sheltered pools present in the Creek. Sensitive aquatic species recorded during the survey effort included two-striped garter snake (*Thamnophis hammondi*-TSGS). Plate 2 illustrates areas where TSGS were observed.

At the onset of the survey period, sufficient flows to support AT were present within the subject study area. However, these flows are regulated by discharge from Castaic Dam. Following the cessation of water releases sometime in May, areas initially evaluated as potentially suitable AT breeding habitat quickly dried. Even if AT were to have been observed or detected in the survey area, there would not likely have been sufficient time for tadpoles to hatch, fully develop, and metamorphose into juvenile toads. The nearest AT observation known to Ecological Sciences is located ± 2.25 -miles southeast of the subject study area, upstream of the Interstate 5 bridge crossing of the Santa Clara River.

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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.

U.S. Fish and Wildlife Service. 1999. *Arroyo Southwestern Toad (Bufo microscaphus californicus) Recovery Plan*. U.S. Fish and Wildlife Service, Portland, Oregon. vi + 119 pp.

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*.





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August 21, 2003

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

SUBJECT: Results of Focused Arroyo Toad Surveys, Hart/Pony Baseball Site and Hart/Pony Commercial Site, 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 the Santa Clara River ($\pm 3,500$ feet in length-herein Survey Area One-Hart/Pony Baseball) and a small part of the South Fork Santa Clara River (± 1000 feet in length-herein Survey Area Two-Hart/Pony Commercial). The two survey areas are generally located west of Valencia Boulevard and north of Magic Mountain Parkway, Santa Clarita, County of Los Angeles, California. 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).

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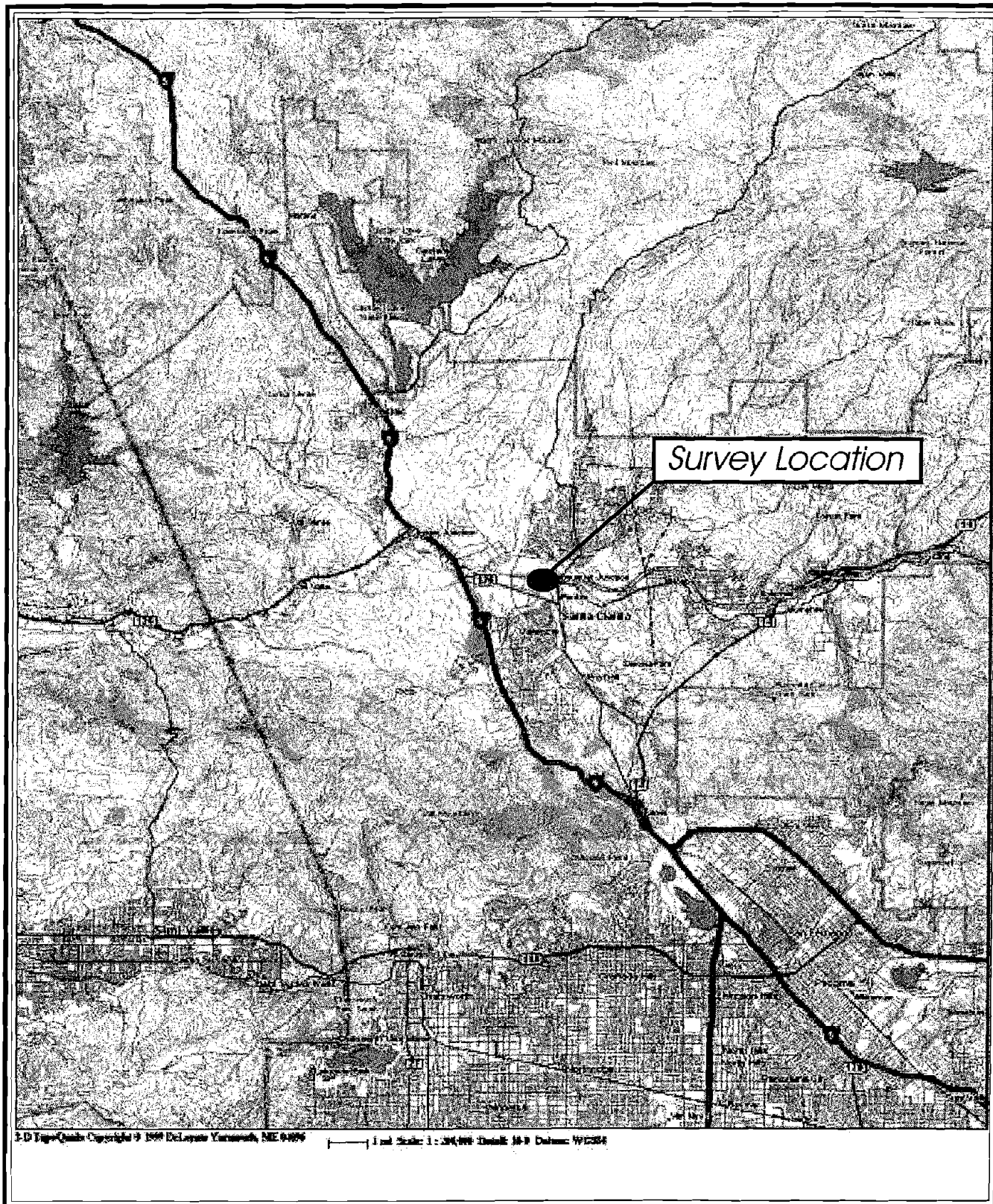
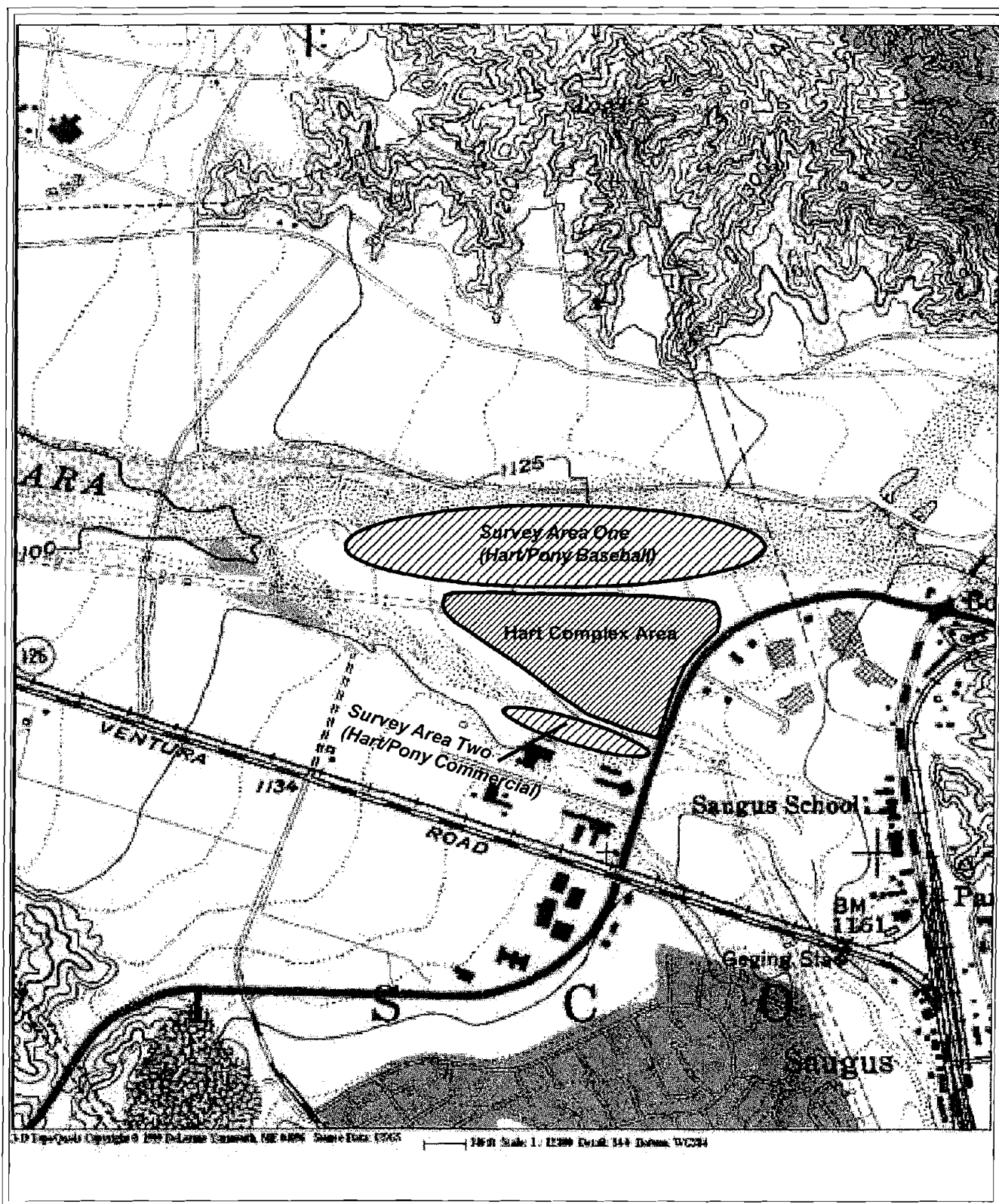


plate 1



August 2003

Regional Site Location
Hart/Pony Sites



August 2003

plate 2

Site Vicinity
Hart/Pony Sites

AT Critical Habitat

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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. Each zone 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 10 and completed on June 19, 2003 as follows: Survey One (April 10); Survey Two (April 17); Survey Three (May 2); Survey Four (May 14); Survey Five (June 3); and Survey Six (June 19).

Existing Study Area Conditions

The project site (referred to as the Hart Complex Area) is highly disturbed and contains existing baseball fields, Southern California Edison (SCE) transmission lines, and a storage yard. Nighttime illumination near the survey area was prevalent due to the baseball field overhead lights.

Santa Clara River (Survey Area One-Hart/Pony Baseball)

The survey area within the Santa Clara River (River) is generally characterized by a braided channel supporting continuous water flow from the upstream outfall of the Los Angeles County Sanitation District Saugus Plant in a confined portion of the River. In Survey Area One, water flowed within one to several small active channels concentrated along the southern portion of the River bank. Relatively narrow channel(s) approximately 2-feet to ± 20 -feet wide that varied in depth from a few inches to ± 12 -inches deep exemplified the active flow portions of the survey area. Some daily fluctuations of volume and velocity produced a few low-flow side channels that were ephemeral in nature. However, the river in this area occurs more often as a single narrower channel with flow rates that often exceeded those conducive to breeding AT. Several water breaks (consisting of earthen berms) and debris (concrete, bricks, etc.) were present along the southern bank of the River (northern levee area of the ball fields), presumably placed to protect the pony league baseball park levee from erosion. ORV use was also prevalent in the River.

The active water channel(s) supported an often dense coverage of arroyo willow (*Salix lasiolepis*), narrow-leaved willow (*Salix exigua*), mule fat (*Baccharis salicifolia*), cattail (*Typha latifolia*), Tamarisk (*Tamarix* sp.), cottonwood (*Populus fremonti*), elderberry (*Sambucus mexicana*), tree tobacco (*Nicotiana glauca*), mustard (*Brassica* spp.), giant reed (*Arundo donax*), western ragweed (*Ambrosia psilostachya*), filaree (*Erodium cicutarium*), and rabbits-foot grass (*Polypogon monspeliensis*).

Upland species present in the dry portions of the River included alluvial scrub species such as scalebroom (*Lepidospartum squamatum*), arrow weed (*Pulchea sericea*), goldenbush (*Ericameria* sp.), sagebrush (*Artemisia tridentata*), California buckwheat (*Eriogonum fasciculatum*), California broom (*Lotus scoparius*), cholla (*Opuntia* sp.), prickly pear (*Opuntia littoralis*), and various understory species such as brome grasses (*Bromus* spp.), cudweed (*Gnaphalium* sp.), eriastrum (*Eriastrum saphirinum*), mustard, and puncture vine (*Tribulus terrestris*).

South Fork Santa Clara River (Survey Area Two-Hart/Pony Commercial)

The South Fork (Survey Area Two) was entirely dry throughout the survey effort. Within the channel, however, most of the primary constituent elements are present (with the exception of water). Accordingly, no suitable breeding habitat is present in this portion of the survey area. Survey Area Two supported many of the above-mentioned species absent many of the alluvial scrub species and those that require a more permanent water source (e.g., cattails).



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 western toad (*Bufo boreas*) and Pacific chorus frog (*Pseudacris regilla*) where lower velocity flows were present. No sensitive vertebrate aquatic species were recorded within the survey areas. Nearly all upper terrace habitats (beyond the stream banks) were considered too disturbed through development and human activity (commercial and residential development on both sides of the River) to support AT attempting to disperse/over-winter to adjacent uplands. The nearest recorded AT observation known to Ecological Sciences is located ± 1.0 -mile downstream of the subject study area near the confluence of the River and San Francisquito Creek in May 2001.

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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.

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