APPENDIX B-5

SPECIAL STATUS FISH SPECIES SURVEY LETTER REPORT

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October 5, 2011

Ms. Erin M. McCarthy
Recovery Permit Coordinator
U.S. Fish and Wildlife Service
6010 Hidden Valley Road, Suite 101

VIA EMAIL
erin_mccarthy@fws.gov

Subject: Results of Focused Presence/Absence Special Status Fish Species Surveys at the Big Tujunga Dam and Reservoir Sediment Removal Project, Los Angeles County, California

Dear Ms. McCarthy:

This Letter Report presents the results of presence/absence surveys for special status fish species, including Santa Ana sucker (*Catostomus santaanae*), Santa Ana speckled dace (*Rhinichthys osculus* ssp. 3), and arroyo chub (*Gila orcutti*) for the Big Tujunga Dam and Reservoir Sediment Removal Project.

Survey Area

Big Tujunga Canyon is located on the southern edge of the San Gabriel Mountains, within the Angeles National Forest, and is located on the U.S. Geological Survey (USGS) Condor Peak 7.5-minute topographic quadrangle (Exhibit 1). The survey area for the special status fish surveys included Big Tujunga Creek extending approximately two river miles upstream of Big Tujunga Reservoir, the Reservoir, and a small section of the creek below the dam including the plunge pool. Topography in the survey area consists of sheer cliffs and steep slopes to the canyon bottom, with elevations ranging from approximately 2,150 to 3,400 feet above mean sea level (msl). The survey area and surrounding vicinity consist of open space within the Angeles National Forest

Big Tujunga Creek consists of two forks, both beginning in the San Gabriel Mountains above the Big Tujunga Dam. The upper portion of Big Tujunga Creek flows from east to west, and several tributaries from the north and south join it as it flows toward Big Tujunga Reservoir. Below the reservoir, the creek is called Big Tujunga Wash. The special status fish survey area is made up of three distinct sections: (1) Big Tujunga Creek upstream of Big Tujunga Reservoir to approximately Fall Creek Campground (approximately two river miles); (2) the edges around Big Tujunga Reservoir; and (3) an area downstream of Big Tujunga Dam, including the plunge pool and adjacent portion of Big Tujunga Wash downstream to the first maintenance road crossing (Exhibit 1).

Big Tujunga Canyon is characterized by very steep slopes, shallow soils, and watercourses contained within bedrock channels. Erosion has deposited alluvium (including boulders, cobbles, gravel, and coarse to fine sandy soils) within the stream course. Topography is irregular and stream grade, width, and flow velocity vary but are generally moderate. The creek channel morphology within the survey area includes portions with narrow, incised, fast-moving water; portions with wider,

slow-moving water; deep pools; and a relatively broad alluvial wash with multiple meanders. In the survey area, Big Tujunga Creek is perennial. Representative photographs of the survey area are provided in Appendix A.

The water elevation in Big Tujunga Reservoir at the time of the surveys was approximately 2,228.5 to 2,229.0 feet above msl. At the time of the surveys, the depth of the reservoir at the dam face was approximately 60 feet (Chimienti 2011). The body of the reservoir itself consists of open water with some floating mats of vegetation (emergent vegetation rooted in the woody debris floating on the surface). These floating mats move around the reservoir with the wind, and often accumulate along the edges of the reservoir. The emergent vegetation is composed primarily of cattails (*Typha* sp.) and arroyo willow (*Salix lasiolepis*).

Upstream of the reservoir, vegetation along Big Tujunga Creek consists primarily of southern riparian scrub species. Big Tujunga Canyon burned during the 2009 Station Fire; thus, the riparian canopy is sparse through much of the creek. The average vegetation heights are approximately five to seven feet. Dominant species in this portion of the survey area include arroyo willow, red willow (*Salix laevigata*), white alder (*Alnus rhombifolia*) and Fremont cottonwood (*Populus fremontii* ssp. *fremontii*), with mule fat (*Baccharis salicifolia*), rough sedge (*Carex senta*), wild oat (*Avena* sp.), and white sweet clover (*Melilotus alba*) in the understory.

Below the dam, the plunge pool is mostly unvegetated. Downstream of the plunge pool, Big Tujunga Wash consists mainly of willow riparian forest dominated by arroyo willow, red willow, white alder, and Fremont cottonwood. Other common species present include mule fat, hoary nettle (*Urtica dioica* ssp. *holosericea*), and mugwort (*Artemisia douglasiana*).

Species Descriptions

Santa Ana Sucker (*Catostomus santaanae*)

Santa Ana sucker is a federally listed Threatened species, and a California Species of Special Concern. Santa Ana sucker is endemic to the Los Angeles basin. Its historic range consisted of the Los Angeles, San Gabriel, and Santa Ana River systems; only these populations within its historic range are federally protected. The most recent California Natural Diversity Database (CNDDB) record of Santa Ana sucker in the vicinity of the survey area reported a location approximately 7.5 miles downstream of the dam in Big Tujunga Wash in 2007 (CDFG 2011). Santa Ana sucker was observed in the survey area along Big Tujunga Wash between the Big Tujunga Dam and Delta Flats in 2009 (SMEA 2010).

On January 4, 2005, the U.S. Fish and Wildlife Service (USFWS) published a final rule designating 8,305 acres of critical habitat for the Santa Ana sucker (USFWS 2005). Two areas were designated in Los Angeles County, one along the San Gabriel River (Unit 2) and the other along Big Tujunga Creek (Unit 3). This designation did not include habitat for the species in Orange, Riverside, or San Bernardino Counties. Following lawsuits, the USFWS proposed a revised critical habitat on December 9, 2009, adding habitat along the Santa Ana River in Orange, Riverside, and San Bernardino Counties to critical habitat for the species (USFWS 2009). This increased the critical habitat designation to 9,331 acres. On December 14, 2010, the USFWS published the final rule formalizing the revised critical habitat (USFWS 2010). A portion of the survey area, the area downstream of Big Tujunga Reservoir, is within the 2010 revised critical habitat for Santa Ana sucker (Exhibit 2).

Santa Ana sucker is found in small, shallow streams with flows that run from slow to swift. They are most abundant where water is clear and unpolluted, although they can withstand seasonal turbidity. Santa Ana sucker is often associated with bottom materials of boulders, gravel, and cobble where there are growths of filamentous algae; they are also occasionally found on sand or mud substrates. Although Santa Ana sucker have generalized stream habitat requirements, they are intolerant of polluted or highly modified streams (Moyle et al. 1995). The majority of their diet consists of algae and detritus that they scrape from rock surfaces, as well as occasional aquatic insect larvae.

Adult Santa Ana sucker rarely exceed a standard length of eight inches (measured from snout tip to anterior of the caudal fin [tail fin]). They exhibit a broad mouth with notches at the junction of the upper and lower lips, and the median notch on the lower lip is less well defined. Their body coloration is silver on the ventral (belly/underside) surface and darker with irregular blotches on the dorsal (back/top) surface. Their scale pattern has longitudinal lateral striping along the length of their body. The interradial membrane (membrane between the spines) of the caudal fin is pigmented, and the anal and pelvic fins normally lack pigment (Moyle et al. 1995).

Santa Ana suckers are relatively short-lived; they become reproductively mature by the first year and spawn during the first and second years. Most suckers do not survive past the second year, although a few live three to four years. There is no sexual dimorphism (distinguishable appearances between males and females), although reproductive males develop breeding tubercles (small bumps) over most of the body (Moyle et al. 1995).

Santa Ana sucker spawning occurs from April until early July, but peaks in late May and early June. Santa Ana suckers spawn over gravel beds in flowing water where the female deposits the eggs in fine gravel substrate. The eggs hatch within 36 hours at 55.5 degrees Fahrenheit (°F), and the fry (fish hatchlings) congregate in shallow, slow-moving waters along the stream margins in water depths ranging from 1 to 5.5 inches, often over very soft sand or mud substrates. Edgewater habitat is probably used by fry because (1) it typically contains fewer predatory fish and (2) shallow water is warmer and probably allows the suckers to grow more quickly (USFWS 2010).

The Santa Ana sucker is currently threatened by water diversions, alteration of stream channels, changes in the watershed that result in erosion and debris flows, pollution and predation by non-native fishes. The primary cause for the extirpation of the Santa Ana sucker from lowland reaches of the Los Angeles, San Gabriel, and Santa Ana Rivers is most likely due to increased urbanization (USFWS 2000).

Arroyo Chub (*Gila orcutti*)

Arroyo chub is a California Species of Special Concern. It is a small freshwater fish native to the watersheds of the Los Angeles, San Gabriel, San Luis Rey, Santa Ana, and Santa Margarita Rivers and those of the Malibu and San Juan Creeks. Arroyo chub have also been successfully introduced into the Santa Ynez, Santa Maria, Cuyama, and Mojave River systems and other smaller coastal streams (Moyle 2002). The arroyo chub is now common at only three of its native locations: Santa Margarita and De Luz Creeks in San Diego County; Trabuco and San Juan Creeks in Orange County; and Malibu Creek in Los Angeles County (Swift et al. 1993). The most recent CNDDB record of arroyo chub in the vicinity of the survey area reported a location approximately 10 miles southwest of Big Tujunga Reservoir along Big Tujunga Wash and Haines Canyon Creek, approximately 0.62–1.1 miles downstream of the Interstate (I) 210 freeway (CDFG 2011). Arroyo chub was observed in the survey area along Big Tujunga Wash between the Big Tujunga Dam and Delta Flats in 2009 (SMEA 2010).

Arroyo chub are small fish that can reach standard lengths of 4.72 inches, although typical adult lengths are 2.76–3.94 inches (Moyle 2002). Males are distinguished from females by their larger fins and, when breeding, by the prominent patch of tubercles on the upper surface of the pectoral fins (forelimbs). Arroyo chub have chunky bodies, fairly large eyes, and small mouths. Their body color is silver or grey to olive-green dorsally, white ventrally, and they usually have a dull grey lateral band (Moyle et al. 1995).

Arroyo chub are found in coastal freshwater streams and rivers with sustained flows and emergent vegetation. They prefer the slowest moving sections where the substrates consist primarily of sand or mud, but they can also be found in fairly fast-moving (31.5 inches/second or more) sections of stream over coarse substrates (Moyle 2002). Arroyo chub also prefer water with depths greater than 15.75 inches (Moyle 2002). This species is adapted to survive in widely fluctuating water temperatures (50°F to 75°F) and fluctuating dissolved oxygen levels common in coastal streams. Arroyo chub form schools and feed heavily on algae and other plants as well as small crustaceans and aquatic insect larvae (Moyle 2002).

Arroyo chub rarely live beyond four years and begin to reproduce at one year of age (McGinnis 2006). Arroyo chub breed more or less continuously from February through August, although most spawning occurs in June and July. The majority of spawning occurs in pools or in quiet edge waters with temperatures of 57.2°F–71.6° F (Moyle 2002). Eggs adhere to the substrate or plants and hatch in approximately four days. After hatching, the fry spend the next 3–4 months in quiet water in the water column and usually occur among vegetation or other flooded cover (Moyle 2002).

Arroyo chub are threatened by the introduction of non-native fish and show a decline in the watershed when non-native species become abundant. The introduction of largemouth bass (*Micropterus salmoides*) and green sunfish (*Lepomis cyanellus*) pose a threat to arroyo chub and could be responsible for their extirpation from many areas (Moyle et al. 1995). Arroyo chub are also threatened by water diversions, urbanization of watersheds, and pollution.

Santa Ana Speckled Dace (*Rhinichthys osculus* ssp. 3)

Santa Ana speckled dace is a California Species of Special Concern. The Santa Ana speckled dace has not been formally described as a subspecies, which is why it is not federally listed. Many believe that Santa Ana speckled dace deserves subspecies status because they have morphological differences that distinguish them from other California dace: they have finer scales, a better developed frenum (a flap of skin attaching the snout to upper lip), a longer head, and smaller eggs (Moyle et al. 1995).

Santa Ana speckled dace was historically distributed throughout the upland portions of the Santa Ana, San Gabriel, and Los Angeles River systems, but it currently has a limited distribution in the headwaters of the Santa Ana and San Gabriel Rivers (Moyle et al. 1995). The most recent CNDDB record of Santa Ana speckled dace in the vicinity of the survey area was reported from a location approximately 10 miles southwest of Big Tujunga Reservoir along Big Tujunga Wash and Haines Canyon Creek, 0.62–1.1 miles downstream of the I-210 freeway (CDFG 2011).

Santa Ana speckled dace is a small, freshwater fish that rarely exceeds three inches in length. Physical characteristics of the Santa Ana speckled dace include one barbel (whisker-like) at the end of each jaw and a frenum on the upper lip. The back and sides of the fish are dusky yellow or olive, and are covered with dark speckles and splotches. During breeding, the base of the

fins in both sexes and the snouts and lips of males often turn red. Also, males usually develop tubercles on their pectoral fins and head (Moyle 2002).

Santa Ana speckled dace require perennial streams with summer water temperatures of 62°F–68°F (Moyle et al. 1995). They prefer riffle habitats in clean, rocky-bottomed streams and rivers, but are also found near the shores of lakes (Moyle et al. 1995). This species exhibits predatory avoidance behaviors such as nocturnal feeding and hiding among the bottom rocks during daylight hours. Except for the breeding season, this species does not form large groups, but instead forages in small groups that can easily blend into the bottom rocks to avoid predation. They forage on a large variety of small, ground-dwelling invertebrates, zooplankton, filamentous algae, and other plant material (McGinnis 2006).

Santa Ana speckled dace typically have a life span of three years, but can live up to six years or more. They become sexually mature in their second year, and spawning occurs throughout the summer months. Speckled dace lay and fertilize their eggs on the stream bottom in rocks and gravel. The eggs hatch in six days, and similar to most other minnows, the young seek out calm inshore areas where zooplankton is available to feed upon (Moyle 2002; McGinnis 2006).

Santa Ana speckled dace are threatened by the introduction of non-native fish and show a decline in the watershed when non-native species become abundant. The introduction of largemouth bass and green sunfish pose a threat to Santa Ana speckled dace and could be responsible for their extirpation from many areas (Moyle et al. 1995). Santa Ana speckled dace are also threatened by water diversions, urbanization of watersheds, and pollution.

Survey Methodology

Surveys were conducted by ECORP Consulting Biologists Todd Chapman (TE-110094-2) and Brian Zitt (TE-27460A-0) with BonTerra Consulting Biologists Jennifer Pareti and Dr. Carl Demetropoulos. Prior to the surveys, Todd Chapman consulted John O'Brien from the California Department of Fish and Game (CDFG) for approval to conduct the surveys for special status fish species in the survey area. Survey methods included electrofishing and seining depending on the location within the survey area (Exhibit 3).

Electrofishing was conducted using a backpack electrofisher (Smith Root Model LR-20B). Adhering to the sampling guidelines provided by USFWS, pulse frequency was 30 hertz (hz); the pulse width did not exceed 5 milliseconds; the duty cycle was 15 percent; and the voltage output was 200 volts (V). Electrofishing was conducted in Big Tujunga Creek upstream of the reservoir on August 15, 2011, and also in Big Tujunga Wash immediately downstream of the dam on August 17, 2011. While electrofishing, care was taken to avoid algal mats and dense vegetation in the creek to avoid impacts on refugia for young fish. Captured fishes were immediately transferred into a container of clean aerated water taken from the wash and were visually identified. Native fishes were released unharmed at the point of capture. Non-native fishes were not returned to Big Tujunga Creek/Wash. Electrofishing was immediately stopped once the presence of the three native special status fish species was confirmed within the survey area.

Four large seine hauls were conducted along the edges of the reservoir, and one seine haul was conducted in the plunge pool immediately below the dam. Seining was conducted using a 100-foot by 10-foot deep nylon knotless delta weave bagged seine with ¼-inch mesh. Seining along the edges of the reservoir was accomplished using a small motorized boat to deploy the seine net, which was then hauled onto the shore. Captured fishes were immediately transferred into a container of clean aerated water taken from the reservoir and were visually identified.

Captured non-native fishes and invertebrates were not returned to Big Tujunga Reservoir or Big Tujunga Wash.

All fish observed during the survey were recorded in field notes. A list of all wildlife species observed during the surveys is included in Appendix B.

Survey Results

Survey date, time, and weather data for the special status fish surveys are shown in Table 1. During the August 15, 2011 survey, which covered the two miles of Big Tujunga Creek upstream of the reservoir, no fish were found. During the August 17, 2011 survey, which covered the reservoir and the area downstream of the reservoir, all three native special status fishes were observed or captured just downstream of the dam in Big Tujunga Wash (Table 2). One large adult Santa Ana sucker was captured and 20 others were visually observed in Big Tujunga Wash. A total of 96 arroyo chub were captured and over 150 others were visually observed during the seining and electrofishing efforts below the dam in Big Tujunga Wash. One Santa Ana speckled dace was also captured during electrofishing downstream of the dam. No special status fish species were found in the reservoir.

Two special status reptile species were observed during the surveys. Two two-striped garter snakes (*Thamnophis hammondii*) and one coastal western whiptail (*Aspidoscelis tigris stejnegeri*) were observed on August 15, 2011. CNDDB forms for these observations will be submitted to CDFG and are included in Appendix C.

Non-native aquatic species observed during these surveys included red-swamp crayfish (*Procambarus clarkii*), green sunfish (*Lepomis cyanellus*), black bullhead (*Ameiurus melas*), and American bullfrog (*Lithobates catesbeianus*). The crayfish, green sunfish, and black bullhead captured during the surveys were removed from the reservoir and Big Tujunga Wash because non-native species are known predators of the special status native fish species.

TABLE 1
FISH SURVEY CONDITIONS DATA

Survey Date	Surveyor Name(s)	Time	Atmospheric Conditions				Water Conditions				
			Percent Cloud Cover (%)	Air Temperature (°F)	Wind Speed (mph)	Weather Conditions	Water Temperature (°F)	Salinity	Oxidation Reduction Potential (ORP)	Nephelometric Turbidity Unit (NTU)	Total Dissolved Solids (TDS)
August 15, 2011	T. Chapman B. Zitt J. Pareti	8:15 AM–4:00 PM	15	73	0–5	sunny	68.3	0.2 ppt	76 mV	500	0.277
August 17, 2011	T. Chapman B. Zitt J. Pareti C. Demetropoulos	8:15 AM–2:00 PM	25	77	0–3	partly cloudy	67.9	0.2 ppt	170 mV	0	0.259

°F: degrees Fahrenheit; mph: miles per hour; ppt: parts per thousand; mV: millivolts; ORP: measure of the cleanliness of the water and its ability to break down contaminants; NTU: measurement of the lack of clarity of water; TDS: total dissolved solids.

TABLE 2
SURVEY RESULTS

Survey Date	Location	Method	Species Captured (Number of Individuals)					Species Visually Observed (Number of Individuals)			
			Arroyo chub	Santa Ana speckled dace	Santa Ana sucker	Black bullhead	Red swamp crayfish	Santa Ana sucker	Arroyo chub	Red swamp crayfish	Green sunfish
August 15, 2011	Upstream of reservoir	Electrofishing	0	0	0	0	0	0	0	0	0
August 17, 2011	Reservoir	Seine 1	0	0	0	30	0	0	0	0	0
August 17, 2011	Reservoir	Seine 2	0	0	0	0	0	0	0	0	0
August 17, 2011	Reservoir	Seine 3	0	0	0	1	0	0	0	0	0
August 17, 2011	Reservoir	Seine 4	0	0	0	0	0	0	0	0	0
August 17, 2011	Plunge Pool beneath dam	Seine 5	46	0	0	1	0	0	50	0	0
August 17, 2011	Downstream of reservoir	Electrofishing	50	1	1	0	1	20	100+	30	1
		Total	**96**	**1**	**1**	**32**	**1**	**20**	**150+**	**30**	**1**

BonTerra Consulting has appreciated the opportunity to assist with this project. Please contact David Hughes at (626) 351-2000 or Jennifer Pareti at (714) 444-9199 if you have questions or comments.

Sincerely,

BONTERRA CONSULTING

David T. Hughes
Senior Project Manager

Jennifer S. Pareti
Biologist

"I certify that the information in this survey report and enclosed exhibits fully and accurately represents my work."

Todd Chapman
Senior Ichthyologist, ECORP Consulting, Inc.
(TE-110094-2)

Brian Zitt
Senior Ichthyologist, ECORP Consulting, Inc.
(TE-27460A-0)

Enclosures: Exhibits 1, 2, and 3
Appendix A – Site Photographs
Appendix B – Wildlife Compendium
Appendix C – CNDDB Forms

cc: Kavita Mahulikar
Ryan Butler

REFERENCES

California Department of Fish and Game (CDFG). 2011. California Natural Diversity Database. Records of Occurrence for the USGS Condor Peak 7.5-minute quadrangle. Sacramento, CA: CDFG, Natural Heritage Division.

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Source: USGS 7.5 Minute Quadrangle
Condor Peak, CA

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Project Location

Exhibit 1

Big Tujunga Dam and Reservoir Post-Fire Sediment Removal Project

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BonTerra CONSULTING

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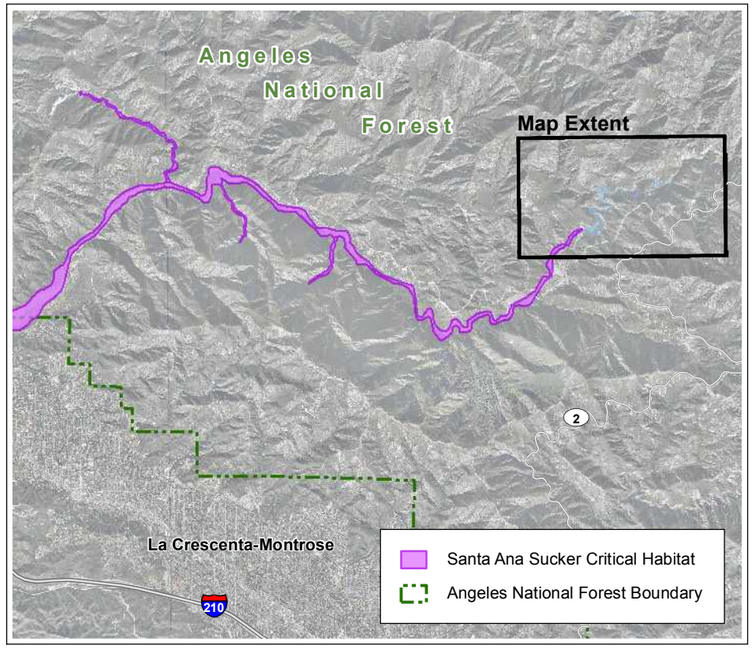

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Critical Habitat

Exhibit 2

Big Tujunga Dam and Reservoir Post-Fire Sediment Removal Project

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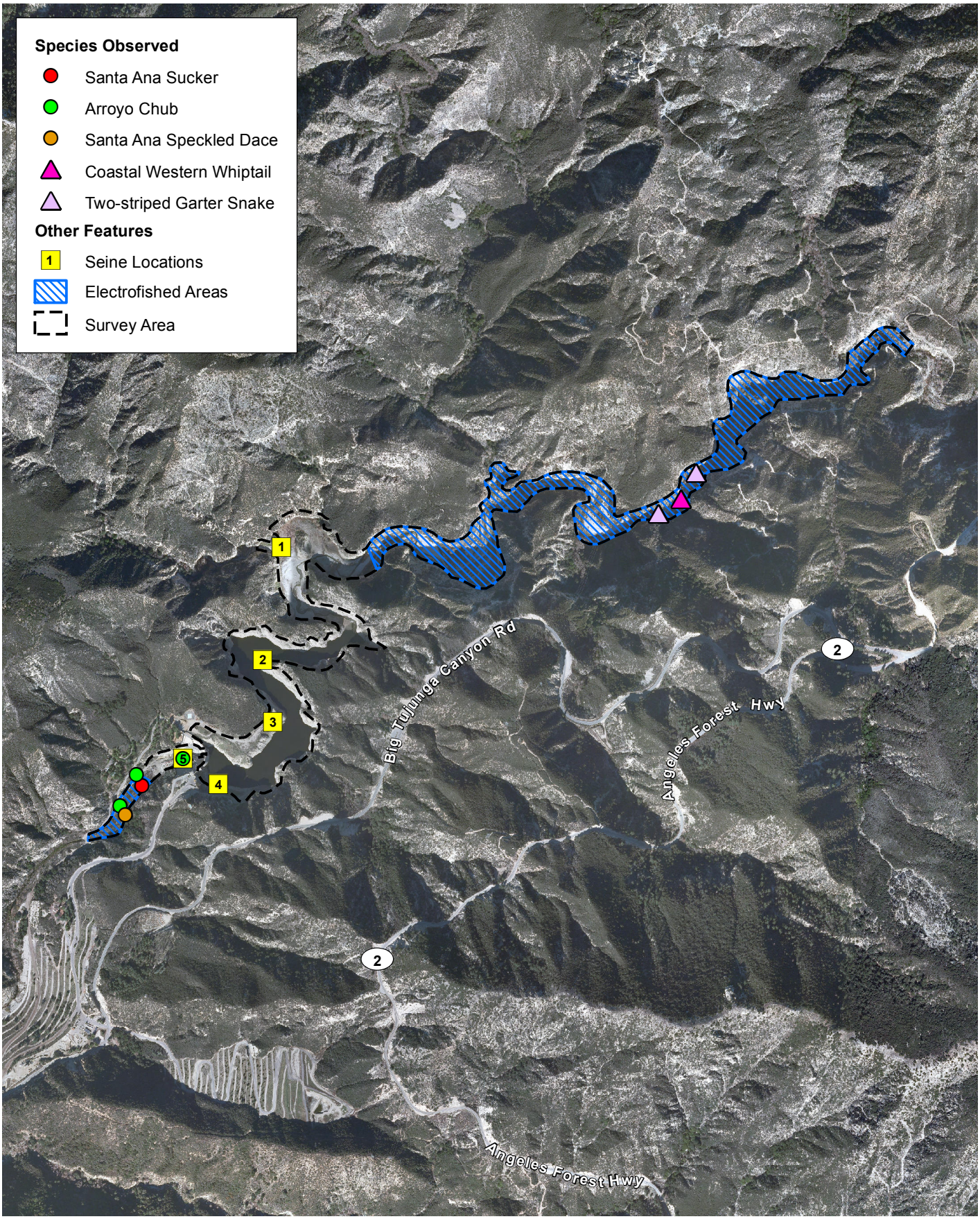

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Survey Results

Exhibit 3

Big Tujunga Dam and Reservoir Post-Fire Sediment Removal Project

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APPENDIX A

SITE PHOTOGRAPHS

Facing north. Big Tujunga Reservoir.

Facing south. Floating vegetation within Big Tujunga Reservoir.

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Facing upstream. Northeast portion of Big Tujunga Reservoir.

Facing upstream. Directly upstream of Big Tujunga Reservoir.

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Facing upstream. Big Tujunga Creek.

Facing upstream. Big Tujunga Creek.

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Facing upstream. Northern portion of the survey area in Big Tujunga Creek.

Releasing seine at location #1 in northern portion of Big Tujunga Reservoir.

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Arroyo chub (top) and Santa Ana sucker (bottom) caught downstream of Big Tujunga Dam.

Santa Ana speckled dace caught downstream of Big Tujunga Dam.

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APPENDIX B

WILDLIFE COMPENDIUM

APPENDIX B
WILDLIFE COMPENDIUM

BIG TUJUNGA WILDLIFE COMPENDIUM
SPECIES
Fish
CYPRINIDAE – MINNOWS
Gila orcutti arroyo chub
Rhinichthys osculus ssp. 3 Santa Ana speckled dace
CATOSTOMIDAE – SUCKERS
Catostomus santaanae Santa Ana sucker
ICTALURIDAE – CATFISH
*Ameiurus melas** black bullhead
CENTRARCHIDAE – SUNFISH
*Lepomis cyanellus** green sunfish
Amphibians
HYLIDAE – TREEFROGS
Pseudacris [Hyla] cadaverina California treefrog
RANIDAE – TRUE FROGS
*Lithobates [Rana] catesbeianus [catesbeiana]** American bullfrog
Reptiles
PHRYNOSOMATIDAE – ZEBRA-TAILED, FRINGE-TOED, SPINY, TREE, SIDE-BLOTCHED, AND HORNED LIZARDS
Sceloporus occidentalis western fence lizard
TEIIDAE – WHIPTAIL LIZARDS
Aspidoscelis [Cnemidophorus] tigris stejnegeri coastal western whiptail
COLUBRIDAE – COLUBRID SNAKES
Thamnophis hammondii two-striped garter snake
Birds
PHALACROCORACIDAE – CORMORANTS
Phalacrocorax auritus double-crested cormorant
ARDEIDAE – HERONS
Ardea Herodias great blue heron
ACCIPITRIDAE – HAWKS
Buteo jamaicensis red-tailed hawk

APPENDIX B
WILDLIFE COMPENDIUM

BIG TUJUNGA WILDLIFE COMPENDIUM
SPECIES
TROGLODYTIDAE – WRENS
Catherpes mexicanus canyon wren
Invertebrates
CAMBARIDAE – CAMBARID CRAYFISH
*Procambarus clarkia** red swamp crayfish
* introduced species

APPENDIX C

CNDDB FORMS

Mail to:
California Natural Diversity Database
Department of Fish and Game
1807 13th Street, Suite 202
Sacramento, CA 95811
Fax: (916) 324-0475 email: CNDDB@dfg.ca.gov

Date of Field Work (mm/dd/yyyy): 08/17/2011

For Office Use Only
Source Code _____ Quad Code _____
Elm Code _____ Occ. No. _____
EO Index No. _____ Map Index No. _____

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: *Gila orcutti*

Common Name: Arroyo chub

Species Found? ☑ Yes ☐ No _____ If not, why?

Total No. Individuals 200 Subsequent Visit? ☐ yes ☑ no

Is this an existing NDDB occurrence? _____ Yes, Occ. # ☐ no ☐ unk.

Collection? If yes: _____ Number _____ Museum / Herbarium

Reporter: Todd Chapman, Ecorp
Address: 1801 Park Court Place, Bldg B, Suite 103
Santa Ana, CA 92701
E-mail Address: tchapman@ecorpconsulting.com
Phone: (714) 648-0630

Plant Information

Phenology: _____% vegetative _____% flowering _____% fruiting

Animal Information

50 # adults | 150 # juveniles | _____ # larvae | _____ # egg masses | _____ # unknown

☐ wintering ☐ breeding ☐ nesting ☐ rookery ☐ burrow site ☐ other

Location Description ***(please attach map AND/OR fill out your choice of coordinates, below)***

County: Los Angeles Landowner / Mgr.: Los Angeles County Department of Public Works
Quad Name: Condor Peak Elevation: 2091 ft
T____ R____ Sec ____, ____ ¼ of _____¼, Meridian: H☐ M☐ S☐
T____ R____ Sec ____, ____ ¼ of _____¼, Meridian: H☐ M☐ S☐
Source of Coordinates (GPS, topo. map & type): GPS
GPS Make & Model Garmin Etrex
DATUM: **NAD27** ☐ **NAD83** ☑ **WGS84** ☐
Horizontal Accuracy +/- 10 feet meters/feet
Coordinate System: UTM Zone 10 ☐ UTM Zone 11 ☑ ***OR*** Geographic (Latitude & Longitude) ☐
Coordinates: 3795304
390613

Habitat Description (plants & animals) *plant communities, dominants, associates, substrates/soils, aspects/slope:*
Animal Behavior *(Describe observed behavior, such as territoriality, foraging, singing, calling, copulating, perching, roosting, etc., especially for avifauna):*

Along the creek, vegetation consists mainly of willow riparian forest dominated by arroyo willow, red willow, white alder and Fremont cottonwood. Other common species present included mule fat, hoary nettle (Urtica dioica ssp. holosericea), and mugwort (Artemisia douglasiana).

Please fill out separate form for other rare taxa seen at this site.

Site Information Overall site/occurrence quality/viability (site + population): ☐ Excellent ☑ Good ☐ Fair ☐ Poor

Immediate AND surrounding land use: open space

Visible disturbances: recently burnt (2009 Station Fire)

Threats: non-native aquatic species present

Comments:

Determination: *(check one or more, and fill in blanks)*

☐ Keyed (cite reference): _____
☐ Compared with specimen housed at: _____
☐ Compared with photo / drawing in: _____
☐ By another person (name): _____
☑ Other: experience with species

Photographs: *(check one or more)*

	Slide	Print	Digital
Plant / animal	☐	☐	☐
Habitat	☐	☐	☐
Diagnostic feature	☐	☐	☐

May we obtain duplicates at our expense? yes ☐ no ☐

Mail to:
California Natural Diversity Database
Department of Fish and Game
1807 13th Street, Suite 202
Sacramento, CA 95811
Fax: (916) 324-0475 email: CNDDB@dfg.ca.gov

Date of Field Work (mm/dd/yyyy): 08/17/2011

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Elm Code _____ Occ. No. _____
EO Index No. _____ Map Index No. _____

Reset

California Native Species Field Survey Form

Send Form

Scientific Name: *Rhinichthys osculus*

Common Name: Santa Ana speckled dace

Species Found? ☑ Yes ☐ No _____ If not, why?

Total No. Individuals 1 Subsequent Visit? ☐ yes ☑ no

Is this an existing NDDB occurrence? _____ Yes, Occ. # ☐ no ☐ unk.

Collection? If yes: _____ Number _____ Museum / Herbarium

Reporter: Todd Chapman, Ecorp
Address: 1801 Park Court Place, Bldg B, Suite 103
Santa Ana, CA 92701
E-mail Address: tchapman@ecorpconsulting.com
Phone: (714) 648-0630

Plant Information

Phenology: _____% vegetative _____% flowering _____% fruiting

Animal Information

1 # adults _____ # juveniles _____ # larvae _____ # egg masses _____ # unknown

☐ wintering ☐ breeding ☐ nesting ☐ rookery ☐ burrow site ☐ other

Location Description ***(please attach map AND/OR fill out your choice of coordinates, below)***

County: Los Angeles Landowner / Mgr.: Los Angeles County Department of Public Works
Quad Name: Condor Peak Elevation: 2091 ft
T____ R____ Sec ____, ____ ¼ of _____¼, Meridian: H☐ M☐ S☐ Source of Coordinates (GPS, topo. map & type): GPS
T____ R____ Sec ____, ____ ¼ of _____¼, Meridian: H☐ M☐ S☐ GPS Make & Model Garmin Etrex
DATUM: **NAD27** ☐ **NAD83** ☑ **WGS84** ☐ Horizontal Accuracy +/- 10 feet meters/feet
Coordinate System: UTM Zone 10 ☐ UTM Zone 11 ☑ ***OR*** Geographic (Latitude & Longitude) ☐
Coordinates: 3795077
390363

Habitat Description (plants & animals) *plant communities, dominants, associates, substrates/soils, aspects/slope:*
Animal Behavior *(Describe observed behavior, such as territoriality, foraging, singing, calling, copulating, perching, roosting, etc., especially for avifauna):*

Along the creek, vegetation consists mainly of willow riparian forest dominated by arroyo willow, red willow, white alder and Fremont cottonwood. Other common species present included mule fat, hoary nettle (Urtica dioica ssp. holosericea), and mugwort (Artemisia douglasiana).

Please fill out separate form for other rare taxa seen at this site.

Site Information Overall site/occurrence quality/viability (site + population): ☐ Excellent ☑ Good ☐ Fair ☐ Poor

Immediate AND surrounding land use: open space

Visible disturbances: recently burned (2009 Station Fire)

Threats: non-native aquatic species present

Comments:

Determination: *(check one or more, and fill in blanks)*

☐ Keyed (cite reference): _____
☐ Compared with specimen housed at: _____
☐ Compared with photo / drawing in: _____
☐ By another person (name): _____
☑ Other: experience with species

Photographs: *(check one or more)*

	Slide	Print	Digital
Plant / animal	☐	☐	☐
Habitat	☐	☐	☐
Diagnostic feature	☐	☐	☐

May we obtain duplicates at our expense? yes ☐ no ☐

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California Native Species Field Survey Form

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Scientific Name: *Catostomus santaanae*

Common Name: Santa Ana sucker

Species Found? ☑ Yes ☐ No _____ If not, why?

Total No. Individuals 21 Subsequent Visit? ☐ yes ☑ no

Is this an existing NDDB occurrence? _____ Yes, Occ. # ☐ no ☐ unk.

Collection? If yes: _____ Number _____ Museum / Herbarium

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Santa Ana, CA 92701
E-mail Address: tchapman@ecorpconsulting.com
Phone: (714) 648-0630

Plant Information

Phenology: _____% vegetative _____% flowering _____% fruiting

Animal Information

21 # adults _____ # juveniles _____ # larvae _____ # egg masses _____ # unknown

☐ wintering ☐ breeding ☐ nesting ☐ rookery ☐ burrow site ☐ other

Location Description ***(please attach map AND/OR fill out your choice of coordinates, below)***

County: Los Angeles Landowner / Mgr.: Los Angeles County Department of Public Works
Quad Name: Condor Peak Elevation: 2091 ft
T____ R____ Sec ____, ____ ¼ of _____¼, Meridian: H☐ M☐ S☐ Source of Coordinates (GPS, topo. map & type): GPS
T____ R____ Sec ____, ____ ¼ of _____¼, Meridian: H☐ M☐ S☐ GPS Make & Model Garmin Etrex
DATUM: **NAD27** ☐ **NAD83** ☑ **WGS84** ☐ Horizontal Accuracy +/- 10 feet meters/feet
Coordinate System: UTM Zone 10 ☐ UTM Zone 11 ☑ ***OR*** Geographic (Latitude & Longitude) ☐
Coordinates: 3795077
390363

Habitat Description (plants & animals) *plant communities, dominants, associates, substrates/soils, aspects/slope:*
Animal Behavior *(Describe observed behavior, such as territoriality, foraging, singing, calling, copulating, perching, roosting, etc., especially for avifauna):*

Along the creek, vegetation consists mainly of willow riparian forest dominated by arroyo willow, red willow, white alder and Fremont cottonwood. Other common species present included mule fat, hoary nettle (Urtica dioica ssp. holosericea), and mugwort (Artemisia douglasiana).

Please fill out separate form for other rare taxa seen at this site.

Site Information Overall site/occurrence quality/viability (site + population): ☐ Excellent ☑ Good ☐ Fair ☐ Poor

Immediate AND surrounding land use: open space

Visible disturbances: recently burned (2009 Station Fire)

Threats: non-native aquatic species present

Comments:

Determination: *(check one or more, and fill in blanks)*

☐ Keyed (cite reference): _____
☐ Compared with specimen housed at: _____
☐ Compared with photo / drawing in: _____
☐ By another person (name): _____
☑ Other: experience with species

Photographs: *(check one or more)*

	Slide	Print	Digital
Plant / animal	☐	☐	☐
Habitat	☐	☐	☐
Diagnostic feature	☐	☐	☐

May we obtain duplicates at our expense? yes ☐ no ☐

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Sacramento, CA 95811
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Date of Field Work (mm/dd/yyyy): 08/15/2011

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California Native Species Field Survey Form

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Scientific Name: *Thamnophis hammondii*

Common Name: two-striped garter snake

Species Found? ☑ Yes ☐ No _____ If not, why?

Total No. Individuals 2 Subsequent Visit? ☐ yes ☑ no

Is this an existing NDDB occurrence? _____ Yes, Occ. # ☐ no ☐ unk.

Collection? If yes: _____ Number _____ Museum / Herbarium

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Address: 1801 Park Court Place, Bldg B, Suite 103
Santa Ana, CA 92701
E-mail Address: tchapman@ecorpconsulting.com
Phone: (714) 648-0630

Plant Information

Phenology: _____% vegetative _____% flowering _____% fruiting

Animal Information

2 # adults _____ # juveniles _____ # larvae _____ # egg masses _____ # unknown

☐ wintering ☐ breeding ☐ nesting ☐ rookery ☐ burrow site ☐ other

Location Description ***(please attach map AND/OR fill out your choice of coordinates, below)***

County: Los Angeles Landowner / Mgr.: Los Angeles County Department of Public Works
Quad Name: Condor Peak Elevation: 2257 ft
T____ R____ Sec ____, ____ ¼ of _____¼, Meridian: H☐ M☐ S☐ Source of Coordinates (GPS, topo. map & type): GPS
T____ R____ Sec ____, ____ ¼ of _____¼, Meridian: H☐ M☐ S☐ GPS Make & Model Garmin Etrex
DATUM: **NAD27** ☐ **NAD83** ☑ **WGS84** ☐ Horizontal Accuracy +/- 10 feet meters/feet
Coordinate System: UTM Zone 10 ☐ UTM Zone 11 ☑ ***OR*** Geographic (Latitude & Longitude) ☐
Coordinates: 3796179 / 392281
3796318 / 392411

Habitat Description (plants & animals) *plant communities, dominants, associates, substrates/soils, aspects/slope:*
Animal Behavior *(Describe observed behavior, such as territoriality, foraging, singing, calling, copulating, perching, roosting, etc., especially for avifauna):*

Big Tujunga Canyon burned in the 2009 Station Fire; the riparian canopy is sparse through much of the creek and average vegetation heights are approximately five to seven feet. Dominant species in this portion of the survey area include arroyo willow (Salix lasiolepis), red willow (Salix laevigata), white alder (Alnus rhombifolia) and Fremont cottonwood (Populus fremontii ssp. fremontii) with mule fat (Baccharis salicifolia), rough sedge (Carex senta), wild oat (Avena sp.), and white sweet clover (Melilotus alba).

Please fill out separate form for other rare taxa seen at this site.

Site Information Overall site/occurrence quality/viability (site + population): ☐ Excellent ☑ Good ☐ Fair ☐ Poor

Immediate AND surrounding land use: open space

Visible disturbances: recently burned (2009 Station Fire)

Threats:

Comments: 2 adults found at separate locations in the creek

Determination: *(check one or more, and fill in blanks)*
☐ Keyed (cite reference): _____
☐ Compared with specimen housed at: _____
☑ Compared with photo / drawing in: Stebbins
☐ By another person (name): _____
☑ Other: experience with species

Photographs: *(check one or more)* Slide Print Digital
Plant / animal ☐ ☐ ☐
Habitat ☐ ☐ ☐
Diagnostic feature ☐ ☐ ☐

May we obtain duplicates at our expense? yes ☐ no ☐

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Fax: (916) 324-0475 email: CNDDB@dfg.ca.gov

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EO Index No. _____ Map Index No. _____

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California Native Species Field Survey Form

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Scientific Name: *Aspidoscelis tigris stejnegeri*

Common Name: coastal western whiptail

Species Found? ☑ Yes ☐ No _____ If not, why?

Total No. Individuals 1 Subsequent Visit? ☐ yes ☑ no

Is this an existing NDDB occurrence? _____ Yes, Occ. # ☐ no ☐ unk.

Collection? If yes: _____ Number _____ Museum / Herbarium

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Address: 1801 Park Court Place, Bldg B, Suite 103
Santa Ana, CA 92701
E-mail Address: tchapman@ecorpconsulting.com
Phone: (714) 648-0630

Plant Information

Phenology: _____% vegetative _____% flowering _____% fruiting

Animal Information

1 # adults _____ # juveniles _____ # larvae _____ # egg masses _____ # unknown

☐ wintering ☐ breeding ☐ nesting ☐ rookery ☐ burrow site ☐ other

Location Description ***(please attach map AND/OR fill out your choice of coordinates, below)***

County: Los Angeles Landowner / Mgr.: Los Angeles County Department of Public Works
Quad Name: Condor Peak Elevation: 2257 ft
T____ R____ Sec ____, ____ ¼ of _____¼, Meridian: H☐ M☐ S☐ Source of Coordinates (GPS, topo. map & type): GPS
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DATUM: **NAD27** ☐ **NAD83** ☑ **WGS84** ☐ Horizontal Accuracy +/- 10 feet meters/feet
Coordinate System: UTM Zone 10 ☐ UTM Zone 11 ☑ ***OR*** Geographic (Latitude & Longitude) ☐
Coordinates: 3796179 / 392281

Habitat Description (plants & animals) *plant communities, dominants, associates, substrates/soils, aspects/slope:*
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Please fill out separate form for other rare taxa seen at this site.

Site Information Overall site/occurrence quality/viability (site + population): ☐ Excellent ☑ Good ☐ Fair ☐ Poor

Immediate AND surrounding land use: open space

Visible disturbances: recently burned (2009 Station Fire)

Threats:

Comments:

Determination: *(check one or more, and fill in blanks)*

☐ Keyed (cite reference): _____
☐ Compared with specimen housed at: _____
☑ Compared with photo / drawing in: Stebbins
☐ By another person (name): _____
☑ Other: experience with species

Photographs: *(check one or more)*

	Slide	Print	Digital
Plant / animal	☐	☐	☐
Habitat	☐	☐	☐
Diagnostic feature	☐	☐	☐

May we obtain duplicates at our expense? yes ☐ no ☐