APPENDIX B-4

SIERRA MADRE YELLOW-LEGGED FROG SURVEY LETTER REPORT

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January 4, 2012

Ms. Erin M. McCarthy
Recovery Permit Coordinator
U.S. Fish and Wildlife Service
6010 Hidden Valley Road, Suite 101
Carlsbad, California 92011

VIA EMAIL
erin_mccarthy@fws.gov

Subject: Results of Focused Presence/Absence Surveys for Sierra Madre Yellow-legged Frog for the Big Tujunga Reservoir Sediment Removal Project, Los Angeles County, California

Dear Ms. McCarthy:

This Letter Report presents the results of focused diurnal surveys to determine the presence or absence of the Sierra Madre yellow-legged frog (*Rana muscosa*) upstream of the Big Tujunga Reservoir for the Big Tujunga Reservoir Sediment Removal Project. A qualified Biologist with the necessary experience and a California Department of Fish and Game (CDFG) scientific collecting permit conducted the surveys.

Survey Area

The survey area for the Big Tujunga Dam and Reservoir Sediment Removal Project is located in Big Tujunga Canyon on the southern edge of the San Gabriel Mountains, within the Angeles National Forest (ANF), Los Angeles County (Exhibit 1). The Sierra Madre yellow-legged frog survey area included suitable and accessible habitat along Big Tujunga Creek extending approximately 3,300 feet (one kilometer) upstream of Big Tujunga Reservoir and portions of three tributary creeks, including approximately 800 feet (0.24 kilometers) of Josephine Creek, 3,300 feet (one kilometer) of Fox Creek, and 1,300 feet (0.40 kilometers) of White Oak Creek (Exhibit 2). The remaining portions of Josephine and White Oak creeks were not surveyed due to the presence of an impassable physical obstacle (such as a waterfall) or lack of suitable upstream habitat. Representative photographs of the survey area are provided in Attachment A.

The survey area is located on the U.S. Geological Survey's (USGS') Condor Peak 7.5-minute topographic quadrangle at Township 3 North, Range 12 West, within Sections 31 and 32. 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 consists of natural open space within the Angeles National Forest.

Big Tujunga Creek

Big Tujunga Creek flows in a westerly direction, and several tributaries from the north and south join it upstream of Big Tujunga Reservoir, including Josephine Creek to the south, and Fox Creek and White Oak Creek to the north. Big Tujunga Canyon is characterized by very steep slopes, shallow soils, and watercourses contained within bedrock channels. Erosion has deposited alluvium (including boulders, cobbles, gravels, and coarse to fine sandy soils) within the stream course. Topography is irregular, and stream grade

and flow velocity range across a moderate spectrum. Stream morphology includes portions with narrow, incised, fast-moving streams with plunge pools; wider, slow-moving streams; and a relatively broad alluvial wash with multiple meanders where the creek flows into the reservoir. Within the survey area, Big Tujunga Creek is a perennially flowing stream.

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. Vegetation within Big Tujunga Creek consists mainly of willow riparian scrub dominated by arroyo willow (*Salix lasiolepis*) and red willow (*Salix laevigata*); however, in some areas it is co-dominated by white alder (*Alnus rhombifolia*) and Fremont cottonwood (*Populus fremontii* ssp. *fremontii*). Other common species present include mule fat (*Baccharis salicifolia*), stinging nettle (*Urtica dioica*), and mugwort (*Artemisia douglasiana*). In upland areas, coast live oaks (*Quercus agrifolia*) and western sycamores (*Platanus racemosa*) are also present.

In alluvial terraces and slopes above the main stream course, alluvial scrub is present, dominated by scale-broom (*Lepidospartum squamatum*); other common species include thick-leaf yerba santa (*Eriodictyon crassifolium*), California buckwheat (*Eriogonum fasciculatum*), Our Lord's candle (*Yucca whipplei*), black sage (*Salvia mellifera*), deerweed (*Acmispon glaber* [*Lotus scoparius*]), and laurel sumac (*Malosma laurina*). Many of the burned trees and shrubs are resprouting from the base. Poodledog bush (*Turricula parryi*), a fire-following species, is widespread throughout the survey area.

Josephine Creek

Josephine Creek flows from the south into Big Tujunga Creek at its confluence with Big Tujunga Reservoir. Stream morphology during surveys is best characterized as a shallow, narrow creek, less than 2 feet (0.6 meter) deep and 10 feet (3.0 meters) wide, and a moderate stream grade within a steep sided canyon approximately 200 feet (61 meters) wide. Approximately 800 feet (0.24 kilometer) upstream of the confluence with Big Tujunga Creek, Josephine Creek flows into the canyon over an approximately 140 foot (43 meter) vertical waterfall. Substrate within the canyon consists of boulders, cobble, gravel, and coarse sand.

Vegetation within Josephine Creek consists mainly of southern sycamore alder riparian woodland, dominated by white alder and western sycamore. In some areas it is co-dominated by black willow (*Salix goddingii*) with a few coast live oak scattered throughout. This vegetation type burned during the 2009 Station Fire and the understory has grown thick with stinging nettle, mugwort, caterpillar phacelia (*Phacelia cicutaria*), scarlet monkeyflower (*Mimulus cardinalis*), California blackberry (*Rubus ursinus*), and poodledog bush. Trees that survived the fire are resprouting.

Fox Creek

Fox Creek flows from the north into Big Tujunga Reservoir approximately half a mile (0.8 kilometer) west of Josephine Creek. Stream morphology during surveys is best characterized as a shallow, narrow creek, less than 3 feet (0.9 meter) deep and 15 feet (4.5 meter) wide, and a moderate stream grade within a steep-sided canyon less than 100 feet (30 meters) wide. Approximately 1,200 feet (0.37 kilometer) upstream of the confluence with Big Tujunga Creek, Fox Creek flows into the canyon over an approximately 70 foot (21 meter) vertical waterfall. Above the waterfall, the canyon becomes narrower with granite slides and sandy pools up to 6 feet (1.8 meter) deep. Substrate within the canyon consists of boulders, cobble, gravel, and coarse to very fine-grained sand.

Vegetation within Fox Creek consists of relatively sparse southern sycamore alder riparian woodland, dominated by white alder and western sycamore. In some areas it is co-dominated by black willow and Fremont cottonwood with coast live oak scattered throughout the upper terraces. Portions of this vegetation type burned during the 2009 Station Fire. The understory consists of patches of caterpillar phacelia, scarlet monkeyflower, California blackberry, and poodledog bush.

White Oak Creek

White Oak Creek flows from the north into Big Tujunga Reservoir approximately 0.5-mile west of the confluence of Fox Creek and Big Tujunga Creek. Stream morphology during surveys is best characterized as a shallow, narrow creek, less than 2 feet (0.6 meter) deep and 5 feet (1.5 meter) wide, and a moderate stream grade within a near vertical walled canyon less than 100 feet (30 meters) wide. The creek has eroded a steep sided channel through sedimentary deposits primarily composed of coarse to fine grained sand and silt. Approximately 1,300 feet (0.4 kilometers) upstream of the confluence with Big Tujunga Creek, White Oak Creek flows into the canyon over an approximately 120 foot (37 meter) vertical waterfall. Above the waterfall, the canyon becomes narrower with a very steep stream gradient.

Vegetation within White Oak Creek consists of sparse willow riparian scrub dominated by black willow with scattered Fremont cottonwood. The alluvial deposits are primarily devoid of vegetation and appear deep, likely having been deposited following the 2009 Station Fire.

Background Information

The Sierra Madre yellow-legged frog was federally listed as an Endangered species by the U.S. Fish and Wildlife Service (USFWS) on July 2, 2002, and is considered a CDFG Species of Special Concern. This species has been extirpated from more than 90 percent of its historic range (Knapp et al. 2007). At the time of listing, the Sierra Madre and the Sierra Nevada (*R. sierrae*) yellow-legged frogs were considered distinct population segments of *R. muscosa*. Genetic, morphological, and acoustical studies (Vredenburg et al. 2007) have determined that they are genetically distinct and the Sierra Nevada yellow-legged frog (*R. sierra*) is now recognized as a new species. The northern distribution of the Sierra Madre yellow-legged frog occurs on the western slopes of the Sierra Nevada Mountains from Fresno County south to Kern County, with Mather Pass representing the northern border of the species range (Vredenburg et al. 2007). The Sierra Nevada yellow-legged frog occurs north of Mather Pass on the eastern slopes of the Sierra Nevada Mountains. The southern distribution of the Sierra Madre yellow-legged frog consists of several small, isolated populations in the San Gabriel, San Bernardino, and San Jacinto Mountains, the largest of which does not exceed 100 individuals. Only the Sierra Madre yellow-legged frog is known to occur in the project region.

The Sierra Madre yellow-legged frog ranges in size from 1.5 to 3.25 inches (3.8 to 8.3 centimeters) snout to vent length (Jennings and Hayes 1994a). Females average slightly larger than males (Stebbins 2003). The belly and ventral (bottom) surface of the hind limbs are yellow to orange, with this pigmentation on the abdomen occasionally extending to the forelimbs (Stebbins 2003). Dorsal (top) coloration in adults is variable, exhibiting a mix of brown and yellow, but it can also be gray, red, or green-brown, and usually patterned with dark spots (Jennings and Hayes 1994a). Dorsolateral (horizontal along the body) folds are apparent but not as pronounced as the red-legged frog. Tadpoles can reach lengths of 2.8 inches (7 centimeters) and are generally mottled brown in dorsal coloration with a golden tint and faintly yellow ventral coloration (Stebbins 2003).

Within the southern range of the Sierra Madre yellow-legged frog in the San Gabriel, San Bernardino, and San Jacinto Mountains, this species is found in narrow, rock-walled rivers, perennial creeks, permanent plunge pools within intermittent creeks, and pools in montane riparian and/or chaparral habitat from 1,200 to 7,500 feet (365 to 2286 meters) msl (Jennings and Hayes 1994a). Breeding pools must maintain water during the entire tadpole growth phase which can last up to four years. Substrates within the aquatic habitat consist of varying proportions of silt, sand, gravel, cobble, rock, and boulders. Boulders and open gravel banks projecting above the water level are required for sunning. Aquatic refugia, including pools with overhanging banks, fallen logs, or rocks, are required to escape predation.

Sierra Madre yellow-legged frogs are primarily diurnal and maintain a small home range, likely less than 33 feet (10 meters) in the longest dimension (CDFG 2008). They are also highly aquatic, not venturing more than a few feet (one meter) from water (CDFG 2008). Adults feed primarily on aquatic and terrestrial invertebrates, favoring terrestrial insects, but have also been observed feeding on tadpoles (Mullally 1953; Heller 1960). Yellow-legged frog tadpoles graze on algae and diatoms along rocky bottoms in shallows.

During the breeding season, typically from March to May, males will defend a territory and make advertising vocalizations to females from shallow areas along the creek margins. Calls are made above and below the water's surface. This species lacks vocal sacs and vocalizations are therefore weak and difficult to detect. Small egg masses of 15 to 350 eggs are deposited underwater where they attach to rocks, gravel, vegetation, or under banks (Livezey and Wright 1945). Eggs hatch approximately three weeks later (Zweifel 1955). Length of the larval stage has not been studied for the southern populations of the Sierra Madre yellow-legged frog; however, it has been determined to be dependent upon elevation in Sierra Nevada yellow-legged frog. Larval stage length for Sierra Nevada yellow-legged frog was found to range from 4 years for the highest elevation populations to one year for the lowest elevation populations (Storer 1925; Zweifel 1955). Larval stage lengths for Sierra Madre yellow-legged frog would be expected to conform to lower elevation Sierra Nevada yellow-legged frog populations. Females reach sexual maturity at 1.8 inches (4.6 centimeters) with males maturing at a slightly smaller size (Zweifel 1955). There is little reliable data on age at sexual maturity but it is considered to be at least three years after metamorphosis (Zweifel 1955).

On September 13, 2005, the USFWS proposed a rule designating approximately 8,770 acres (3550 hectares) of land as critical habitat for the Southern California Distinct Vertebrate Population Segment of the Mountain Yellow-Legged Frog (*Rana muscosa*) in Los Angeles, San Bernardino, and Riverside counties, California (USFWS 2005). A final rule was published on September 14, 2006 for approximately 8,283 acres (3352 hectares) (USFWS 2006). The nearest Critical Habitat is Unit 1D, Devil's Canyon, approximately 12 miles (19 kilometers) east of the project area within the San Gabriel River Watershed. The survey area is located in the Los Angeles River Watershed.

The Sierra Madre yellow-legged frog occurred historically in the Big Tujunga Wash immediately upstream of Foothill Boulevard; and in Big Tujunga Creek, Mill Creek, and several tributary drainages above Big Tujunga Dam (CDFG 2011). There have been no documented observations of the population between Foothill Boulevard and Big Tujunga Dam since 1939 and it is considered extirpated (CDFG 2011; Jennings and Hayes 1994b). The closest known population for this species is located at Devil's Canyon approximately 12 miles (19 kilometers) east.

The San Diego Zoo's Institute for Conservation Research, in conjunction with the CDFG, USFWS, U.S. Forest Service (USFS) and USGS, has developed a Mountain Yellow-legged Frog Recovery Program which involves captive breeding and translocation for the remaining frogs from the San Bernardino Mountains (San Diego Zoo 2009). In August of 2006, 75 tadpoles were collected from a drying stream bed in the San Jacinto Mountains and were used to establish the captive breeding program. In 2010, tadpole offspring from the captive breeding program were released back into the San Jacinto Mountains at sites where the species was observed historically.

Survey Methodology

Prior to conducting the focused surveys, a search of the California Natural Diversity Database (CNDDB) (CDFG 2011) and other relevant available documents (Jennings and Hayes 1994; Campbell et al. 1996) was conducted to determine if and to what extent the Sierra Madre yellow-legged frog occurs in the project vicinity.

An initial site assessment was conducted by BonTerra Consulting Senior Herpetologist Sam Stewart on March 17, 2011, to determine the extent of potentially suitable habitat for the Sierra Madre yellow-legged frog. The site assessment determined that Big Tujunga Creek upstream from the reservoir and three tributary drainages (i.e., Josephine Creek, Fox Creek, and White Oak Creek) provide potentially suitable habitat for the species.

Surveys were proposed in suitable habitat up to 0.6 mile (1 kilometer) from the project study area, which includes Big Tujunga Reservoir and a 200 foot (60 meter) buffer. Surveys in Big Tujunga Creek were conducted from the reservoir to the Fall Creek Campground/USFS Road 3N27 approximately 0.6 mile (one kilometer) upstream. Surveys in Fox Canyon were conducted from Big Tujunga Creek to approximately 0.6 mile (1 kilometer upstream). The Josephine Creek survey area was reduced to 800 feet (244 meters) from the confluence with Big Tujunga Creek due to the presence of an impassable 140 foot (43 meter) vertical waterfall and marginal conditions for the species (i.e., relatively broad canyon and lack of suitable pools for larval development). The White Oak Creek survey area was reduced to 1,200 feet (365 meters) from the confluence with Big Tujunga Creek due to the presence of an impassable 120 foot (37 meter) vertical waterfall and lack of suitable upstream habitat (i.e., high stream gradient).

Mr. Stewart was the principal investigator accompanied by BonTerra Consulting Biologist Jason Mintzer. A total of four diurnal surveys were conducted on July 28; August 2, 15, and 17, 2011. The timing of the surveys was not suitable to observe breeding but adults and larvae would have been detectable. Although there is no USFWS-approved survey protocol for the Sierra Madre yellow-legged frog, surveys were consistent with a draft survey protocol developed by the USGS (Backlin et al. 2003).

Diurnal surveys were conducted between 9:00 AM and dusk, and focused on the detection of frogs by visual identification and checking potentially suitable breeding habitat for tadpoles. Mr. Stewart and Mr. Mintzer scanned pools for larvae, juveniles, and adults in potentially suitable breeding territories along the stream, and for foraging individuals in the adjacent riparian areas. Surveys were conducted during appropriate environmental conditions conducive to the activity patterns of the Sierra Madre yellow-legged frog. Generally, these conditions consist of temperatures in excess of 50 degrees Fahrenheit (10 degrees Celsius) with low winds (less than 10 miles [16 kilometers] per hour). Survey dates, times, and weather data are shown in Table 1.

TABLE 1
SUMMARY OF SIERRA MADRE YELLOW LEGGED FROG
SURVEY CONDITIONS

Survey	Surveying Biologists	Survey Date	Wind (miles/hour)		Temperature (°F)		Relative Humidity (%)		Cloud Cover
			Start	End	Start	End	Start	End	
1	S. Stewart, J. Mintzer	7/28/2011	4-6	0-2	77	78	45	44	Clear
2	S. Stewart, J. Mintzer	8/2/2011	3-5	2-4	88	89	20	17	10%
3	S. Stewart, J. Mintzer	8/15/2011	0-2	5-7	82	84	21	34	Clear
4	S. Stewart, J. Mintzer	8/17/2011	0-2	2-4	83	88	22	20	10%

Special status species detected during surveys were documented in field notes and the following data collected whenever possible: (1) time of initial observation; (2) meteorological conditions at time of initial observation (including temperature, relative humidity, wind speed, and barometric pressure); (3) geographic positioning system (GPS) coordinates; (4) and photographs.

Survey Results

No Sierra Madre yellow-legged frogs were observed during focused surveys. Native amphibian species observed during surveys include western toad (*Anaxyrus boreas*), California treefrog (*Pseudacris cadaverina*), and Baja California treefrog (*Pseudacris hypochondriac*). A list of all wildlife species observed within the survey area is included in Attachment B.

Several non-target special status species were observed during surveys (Table 2). These include the following California Species of Special Concern: yellow warbler (*Dendroica petechia*),loggerhead shrike (*Lanius ludovicianus*), and two-striped garter snake (*Thamnophis hammondii*). The coastal whiptail (*Aspidoscelis tigris stejnegeri*), a CDFG Special Animal, and peregrine falcon (*Falco peregrines*), a California Fully Protected Species, were also detected. CNDDB forms for these species are found in Attachment C. Detailed information on the special status bird sightings was not collected because amphibians were the focus of the survey effort. Therefore, CNDDB forms for special status bird species are not included in Attachment C.

TABLE 2
SPECIAL STATUS SPECIES OBSERVED DURING SURVEYS

Scientific Name	Common Name	Status			Location
		USFWS	USFS	CDFG	
Reptiles					
Aspidoscelis tigris stejnegeri	coastal whiptail	-	-	SA	All segments
Thamnophis hammondii	two-striped garter snake	-	FSS	SSC	Big Tujunga Creek, Fox Creek
Birds					
Dendroica petechia	yellow warbler	-	-	SSC	Big Tujunga Creek
Falco peregrines	peregrine falcon	-	FSS	CFP SCD	Big Tujunga Creek
Lanius ludovicianus	loggerhead shrike	-	-	SSC	Fox Creek

Federal Designations (USFS)
FSS Forest Service Sensitive Species

State Designations (CDFG)
CFP California Fully Protected
SA Special Animal
SCD California (State) Candidate for Delisting
SSC Species of Special Concern

BonTerra Consulting appreciates the opportunity to assist with this project. Please contact David Hughes or Sam Stewart at (626) 351-2000 with any questions or comments.

Sincerely,

BONTERRA CONSULTING

David T. Hughes
Senior Project Manager

for Samuel C. Stewart, IV
Senior Herpetologist

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

cc: Ryan Butler, Los Angeles County Department of Public Works
Philip Siongco, Los Angeles County Department of Public Works

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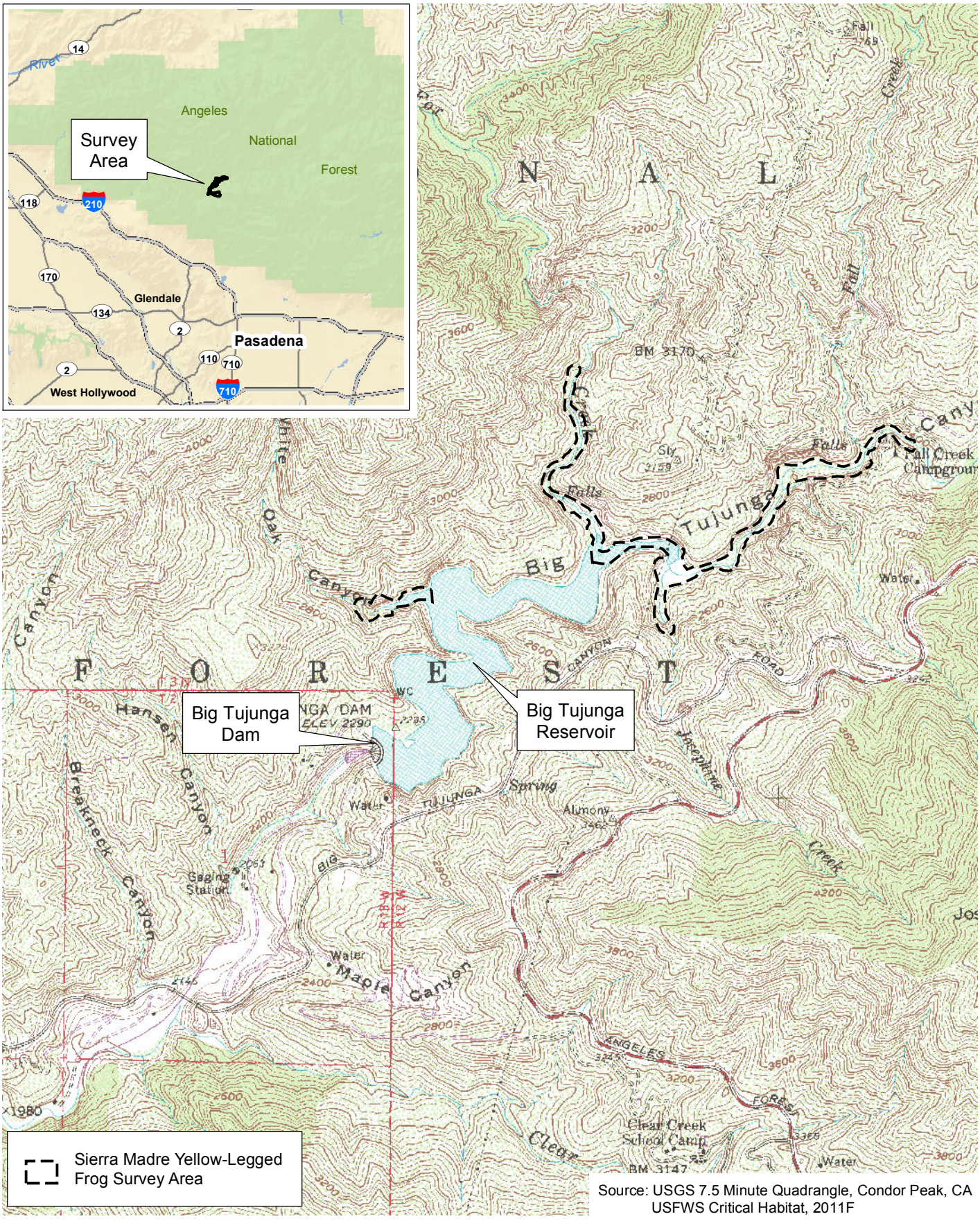

Source: USGS 7.5 Minute Quadrangle, Condor Peak, CA
USFWS Critical Habitat, 2011F

Survey Area Location

Exhibit 1

Sierra Madre Yellow-Legged Frog Survey for the Big Tujunga Reservoir Sediment Removal Project

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Feet

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Sierra Madre Yellow-Legged Frog Survey Area

Species Observed

Two-striped Garter Snake

Loggerhead Shrike

Other Features

White Oak Creek Waterfall

Fox Creek Waterfall

Josephine Creek Waterfall

Fox Creek

Big Tujunga Creek

White Oak Creek

Josephine Creek

Big Tujunga Canyon Rd

Big Tujunga Canyon Rd

Angeles Forest Hwy

2

2

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Sierra Madre Yellow-Legged Frog Survey Area

Exhibit 2

Sierra Madre Yellow-Legged Frog Survey for the Big Tujunga Reservoir Sediment Removal Project

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700 350 0 700

Feet

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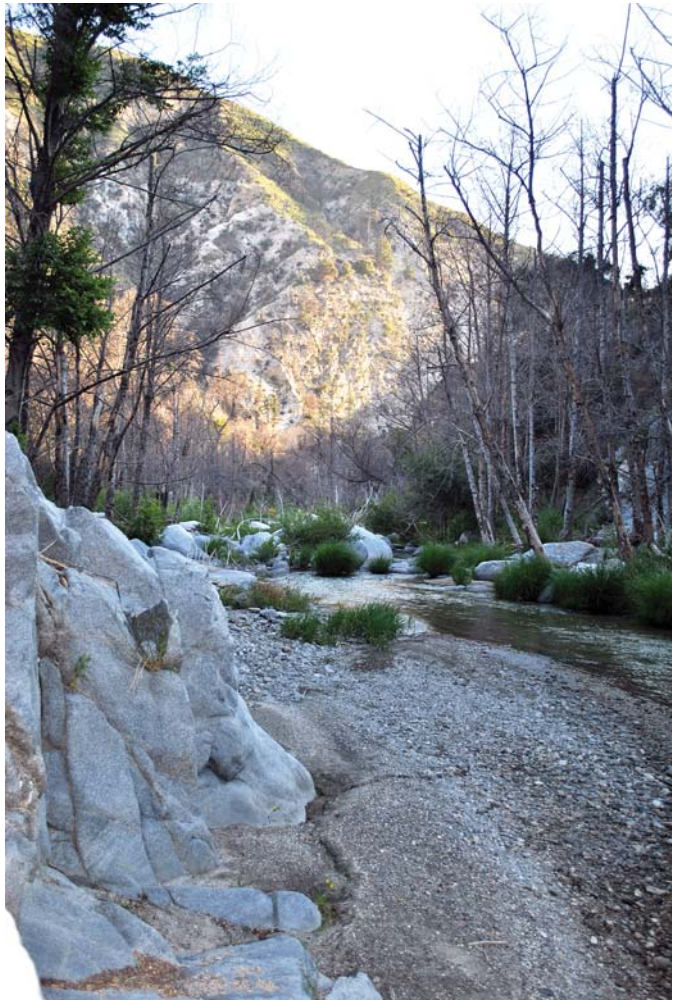
ATTACHMENT A

PHOTOGRAPHS



Eastern end of Big Tujunga Creek survey area facing downstream.

Fox Creek Waterfall.

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Survey Area Photographs

Attachment A-1

Sierra Madre Yellow-Legged Frog Survey for the Big Tujunga Reservoir Sediment Removal Project

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Fox Canyon granite slides and pools above the waterfall.

White Oak Canyon facing downstream toward Big Tujunga Reservoir.

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Survey Area Photographs

Attachment A-2

Sierra Madre Yellow-Legged Frog Survey for the Big Tujunga Reservoir Sediment Removal Project

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Josephine Creek Waterfall.

Representative habitat within Fox Canyon.

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Survey Area Photographs

Attachment A-3

Sierra Madre Yellow-Legged Frog Survey for the Big Tujunga Reservoir Sediment Removal Project

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ATTACHMENT B

WILDLIFE COMPENDIUM

WILDLIFE COMPENDIUM

Species
Amphibians
BUFONIDAE - TRUE TOADS
Anaxyrus boreas [*Bufo boreas*] western toad
HYLIDAE - TREEFROGS
Pseudacris [Hyla] cadaverina California treefrog
Pseudacris hypochondriaca [*Hyla regilla*] Baja California treefrog
Reptiles
PHRYNOSOMATIDAE - ZEBRA-TAILED, FRINGE-TOED, SPINY, TREE, SIDE-BLOTCHED, & HORNED LIZARDS
Sceloporus occidentalis western fence lizard
Uta stansburiana side-blotched lizard
SCINCIDAE - SKINKS
Plestidon [*Eumeces*] *skiltonianus* western skink
TEIIDAE - WHIPTAIL LIZARDS
Aspidoscelis [Cnemidophorus] tigris stejnegeri coastal whiptail
ANGUIDAE - ALLIGATOR LIZARDS
Elgaria multicarinata southern alligator lizard
COLUBRIDAE - COLUBRID SNAKES
Thamnophis hammondii two-striped garter snake
Birds
ANATIDAE - WATERFOWL
Anas platyrhynchos mallard
PHALACROCORACIDAE - CORMORANTS
Phalacrocorax auritus double-crested cormorant
ARDEIDAE - HERONS, BITTERNS, & ALLIES
Ardea herodias great blue heron
Nycticorax nycticorax black-crowned night-heron
ACCIPITRIDAE - HAWKS, KITES, EAGLES, & ALLIES
Buteo jamaicensis red-tailed hawk
FALCONIDAE - FALCONS
Falco sparverius American kestrel
Falco peregrinus peregrine falcon

WILDLIFE COMPENDIUM (Continued)

Species
COLUMBIDAE - PIGEONS & DOVES
Streptopelia chinensis * spotted dove
Zenaida macroura mourning dove
CAPRIMULGIDAE - GOATSUCKERS
Phalaenoptilus nuttallii common poorwill
APODIDAE - SWIFTS
Aeronautes saxatalis white-throated swift
TROCHILIDAE - HUMMINGBIRDS
Archilochus alexandri black-chinned hummingbird
Calypte costae Costa's hummingbird
Selasphorus sasin Allen's hummingbird
PICIDAE - WOODPECKERS
Picoides nuttallii Nuttall's woodpecker
Colaptes auratus northern flicker
TYRANNIDAE - TYRANT FLYCATCHERS
Contopus sordidulus western wood-pewee
Empidonax hammondii Hammond's flycatcher
Empidonax difficilis Pacific-slope flycatcher
Sayornis nigricans black phoebe
Myiarchus cinerascens ash-throated flycatcher
VIREONIDAE - VIREOS
Vireo cassinii Cassin’s vireo
CORVIDAE - CROWS & JAYS
Aphelocoma californica western scrub-jay
Corvus brachyrhynchos American crow
Corvus corax common raven
Cyanocitta stelleri Steller's jay

WILDLIFE COMPENDIUM (Continued)

Species
HIRUNDINIDAE - SWALLOWS
Tachycineta thalassina violet-green swallow
Stelgidopteryx serripennis northern rough-winged swallow
Petrochelidon pyrrhonota cliff swallow
Baeolophus inornatus oak titmouse
TROGLODYTIDAE - WRENS
Salpinctes obsoletus rock wren
Catherpes mexicanus canyon wren
Thryomanes bewickii Bewick's wren
CINCLIDAE - DIPPERS
Cinclus mexicanus American dipper
PTILOGONATIDAE - SILKY-FLYCATCHERS
Phainopepla nitens phainopepla
PARULIDAE - WARBLERS
Oreothlypis [*Vermivora*] *celata* orange-crowned warbler
Dendroica petechia yellow warbler
Dendroica coronata yellow-rumped warbler
Dendroica nigrescens black-throated gray warbler
Wilsonia pusilla Wilson's warbler
EMBERIZIDAE - SPARROWS & JUNCOS
Pipilo maculatus spotted towhee
Melozone [*Pipilo*] *crissalis* California towhee
Amphispiza belli sage sparrow
Melospiza melodia song sparrow
Junco hyemalis dark-eyed junco
CARDINALIDAE - CARDINALS & ALLIES
Pheucticus melanocephalus black-headed grosbeak
Passerina amoena lazuli bunting

WILDLIFE COMPENDIUM (Continued)

Species
ICTERIDAE - BLACKBIRDS
Molothrus ater brown-headed cowbird
Icterus bullockii Bullock's oriole
FRINGILLIDAE - FINCHES
Carpodacus mexicanus house finch
Spinus [Carduelis] psaltria lesser goldfinch
Spinus [Carduelis] lawrencei Lawrence's goldfinch
Spinus [Carduelis] tristis American goldfinch
Mammals
MURIDAE - MICE, RATS, & VOLES
Peromyscus maniculatus deer mouse
CANIDAE - WOLVES & FOXES
Urocyon cinereoargenteus gray fox
PROCYONIDAE - RACCOONS
Procyon lotor common raccoon
MUSTELIDAE - WEASELS, SKUNKS & OTTERS
Mephitis mephitis striped skunk
CERVIDAE - DEER
Odocoileus hemionus mule deer
* introduced species

ATTACHMENT C

CNDDB FORM

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): 08/15/2011

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: *Thamnophis hammondii*

Common Name: two-striped garter snake

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: Sam Stewart
Address: 225 S. Lake Ave., Suite 1000
Pasadena, CA. 91101
E-mail Address: sstewart@bonterraconsulting.com
Phone: (626) 351-2000

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.: US Forest Service
Quad Name: Condor Peak Elevation: 2,253ft.
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 Vista H
DATUM: NAD27 ☐ NAD83 ☑ WGS84 ☐
Horizontal Accuracy 10 feet meters/feet
Coordinate System: UTM Zone 10 ☐ UTM Zone 11 ☑ ***OR*** Geographic (Latitude & Longitude) ☐
Coordinates: 11S 392434, 3796307

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):*

Adult two-striped garter snake observed foraging on south bank of Big Tujunga Creek above reservoir on sandy terrace. Willow and alder riparian woodland with mule fat on banks.

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: No development in vicinity. Angeles National Forest.

Visible disturbances: None.

Threats:

Comments:

Determination: *(check one or more, and fill in blanks)*
- ☑ Keyed (cite reference): Powell et al. 1998
- ☐ Compared with specimen housed at: _____
- ☐ Compared with photo / drawing in: _____
- ☐ By another person (name): _____
- ☑ Other: familiarity 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

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: *Thamnophis hammondii*

Common Name: two-striped garter snake

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: Sam Stewart
Address: 225 S. Lake Ave., Suite 1000
Pasadena, CA. 91101
E-mail Address: sstewart@bonterraconsulting.com
Phone: (626) 351-2000

Plant Information

Phenology: _____% vegetative _____% flowering _____% fruiting

Animal Information

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

☐ 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.: US Forest Service
Quad Name: Condor Peak Elevation: 3,100 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 Vista H
DATUM: NAD27 ☐ NAD83 ☑ WGS84 ☐
Horizontal Accuracy 10 feet meters/feet
Coordinate System: UTM Zone 10 ☐ UTM Zone 11 ☑ *OR* Geographic (Latitude & Longitude) ☐
Coordinates: 11S 391613, 3797077

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):*

Adult two-striped garter snake observed foraging on east bank of Fox Creek on sandy terrace. Willow and alder riparian woodland with mule fat on banks.

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: No development in vicinity. Angeles National Forest.

Visible disturbances: None.

Threats:

Comments:

Determination: *(check one or more, and fill in blanks)*
- ☑ Keyed (cite reference): Powell et al. 1998
- ☐ Compared with specimen housed at: _____
- ☐ Compared with photo / drawing in: _____
- ☐ By another person (name): _____
- ☑ Other: familiarity with species

Photographs: *(check one or more)*

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

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