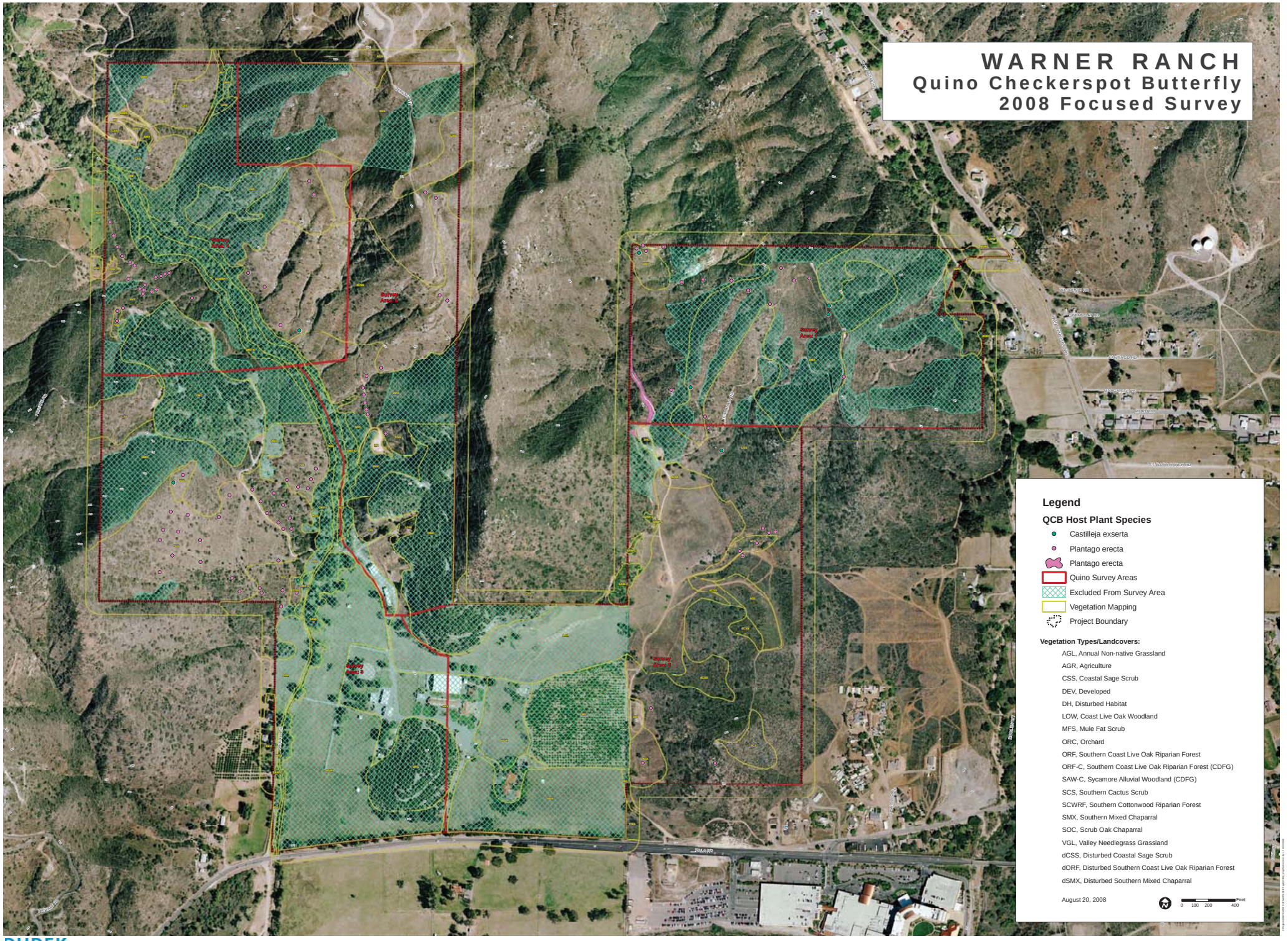

WARNER RANCH
Quino Checkerspot Butterfly
2008 Focused Survey
Survey Area 1
Survey Area 2
Survey Area 3
Survey Area 4
Legend
QCB Host Plant Species
Castilleja exserta
Plantago erecta
Plantago erecta
Quino Survey Areas
Excluded From Survey Area
Vegetation Mapping
Project Boundary
Vegetation Types/Landcovers:
AGL, Annual Non-native Grassland
AGR, Agriculture
CSS, Coastal Sage Scrub
DEV, Developed
DH, Disturbed Habitat
LOW, Coast Live Oak Woodland
MFS, Mule Fat Scrub
ORC, Orchard
ORF, Southern Coast Live Oak Riparian Forest
ORF-C, Southern Coast Live Oak Riparian Forest (CDFG)
SAW-C, Sycamore Alluvial Woodland (CDFG)
SCS, Southern Cactus Scrub
SCWRF, Southern Cottonwood Riparian Forest
SMX, Southern Mixed Chaparral
SOC, Scrub Oak Chaparral
VGL, Valley Needlegrass Grassland
dCSS, Disturbed Coastal Sage Scrub
dORF, Disturbed Southern Coast Live Oak Riparian Forest
dSMX, Disturbed Southern Mixed Chaparral
August 20, 2008
0 100 200 400 Feet
PALA RD

DUDEK

APPENDIX A

Warner Ranch 2008 QCB Survey Field Notes

Quino Checkerspot General Form Survey type: Habitat Assessment/Adult Survey

Surveyor: BAD Date: 3/19/08 (mm/dd/yyyy) Site Visit No: 1 2 3 4 5 6 7 8 9 10

Total site acres: _____ Site Name: Warner Ranch Site Location: Area 1

Time (24 hr)	Sky	Wind (Beaufort)	Temp F or C
Begin 1130	clear/ partcloudy/overcast/fog/drizzle/shower	<1 1-3 4-7 8-12 >12	69°
	clear/ partcloudy/overcast/fog/drizzle/shower	<1 1-3 4-7 8-12 >12	
	clear/ partcloudy/overcast/fog/drizzle/shower	<1 1-3 4-7 8-12 >12	
	clear/ partcloudy/overcast/fog/drizzle/shower	<1 1-3 4-7 8-12 >12	
	clear/ partcloudy/overcast/fog/drizzle/shower	<1 1-3 4-7 8-12 >12	
	clear/ partcloudy/overcast/fog/drizzle/shower	<1 1-3 4-7 8-12 >12	
End 1530	clear/ partcloudy/overcast/fog/drizzle/shower	<1 1-3 4-7 8-12 >12	68°

Total hours surveyed: 5

Focused Survey Acres: _____ Elev Min: _____ft Max: _____ft

Describe, map, and estimate areas surveyed below.

Host Plants[a]	Patch Size (ft^2)	No Plants/ft^2	Sparse/Dense[b]	Map ID[c]	
on map					
Pe	mainly along rds				
Ce	at upper elev rd				

a. Larval or nectar resources. Identify species. b. Sparse= plants not touching; dense = plants touching c. Corresponds to polygon on a map.

whipsnake -striped
CATO
WEFenceliz
SPTO
COYT
WLSP
LEGO
OSTW
TUVU

Surrounding land uses (including adjoining properties):

		Adj
North	Open space	Distance ____ ft./mile
South	Open space	Distance ____ ft./mile
East	Rural res	Distance ____ ft./mile
West	Open space	Distance ____ ft./mile

Habitat onsite (circle): open soils hilltop ridge Plantago Castilleja soil crusts old roads nectar clay soils rock outcrops

Conditions: (e.g. grazing agriculture sowbugs/earwigs recent fire grading)
Other: _____

Butterflies Observed (larvae or adults)	Number	Comments
Pale Swallowtail (*Paplio eurymedon*)		
Anise Swallowtail (*P. zelicaon*)	3	
West Tiger Swallowtail (*P. rutulus*)		
Sara Orangetip (*Anthocharis sara*)	3	
Felder's Orangetip (*A. cethura*)		
Cabbage White (*Artogeia rapae*)		
Sleepy Orange (*Eurema nicippe*)		
Common White (*Pontia protodice*)		
California Dogface (*Zerene eurydice*)		
Alfalfa Butterfly (*Colias eurytheme*)		
Harford's Sulfur (*C. harfordi*)		
California Ringlet (*Coenonympha californica*)		
Monarch (*Danaus plexippus*)		
Queen (*D. gilippus*)		
Henne's Checkerspot (*Euphydryas chalcedona hennei*)		
Calcedon Checkerspot (*E. chalcedona chalcedona*)		
Quino Checkerspot (*E. editha quino*)		
Gabb's Checkerspot (*Charidryas gabbii*)		
Leanira Checkerspot (*Thessalia leanira wrighti*)		
Mylitta Cresent (*Phyciodes mylitta*)		
Painted Lady (*Vannessa cardui*)	20	
West Coast Lady (*V. annabella*)	9	
Virginia Lady (*V. viginiensis*)		
Red Admiral (*V. atalanta*)		
Buckeye (*Junonia coenia*)		
Mourning Cloak (*Nymphalis antiopa*)		
California Sister (*Adelpha bredowii californica*)		
Satyr Anglewing (*Polygonia satyrus*)		
Lorquin's Admiral (*Basilarchia lorquini*)		
Western Tailed Blue (*Everes amyntula*)		
Southern Blue (*Glaucopsyche lygdamus australis*)		
Echo Blue (*Celastrina ladon echo*)		
Sonoran Blue (*Philotes sonorensis*)		
Marine Blue (*Leptotes marina*)		
Acmon Blue (*Icaricia acmon*)	13	
Pygmy Blue (*Brephidium exilis*)		
Gray Hairstreak (*Strymon melinus*)		
Brown Elfin (*Incisalia augustinus*)		
Perplexing Hairstreak (*Callophrys perplexa*)		
Grt Purple Hairstreak (*Atlides halesus*)		
Behr's Metalmark (*Apodemia mormo virgulti*)	22	
Wright's Metalmark (*Calephelis wrightii*)		

Warner QCB
Area 1

3/27/08

74 miles

Kam Mart

1115h: 70°F; clear/sunny; 2-4 mph W
1557h: 76°F; clear/sunny; 4-6 mph W

CATO SPTD LEGO CAOU
Behr's met
Apis mellifera
Funereal duskwing
painted lady
buckeye
coyote (scat)
BUOR COHU COYE WEKI
KTHA CATH WREN WASP
Sara's orangetip
pale tiger swallowtail
common white
b

Dichelostemma
Eschscholzia cal
Cryptantha
Phacelia cic
Mirabilis cal
Erodium
Lot sc - few blooming
Lasthenia cal
Gilia sp.
Lupinus spp.
Rhadia pauci? ?

Warner QCB 3/31/08
Area 1

Kara Meier

1637h: 68°F; 2-4 mph W; sunny/clear
1693h: 61°F; 0-1 mph W; sunny/clear

painted lady
WSCJ CAOU LEGO SPTO
Apis mellifera
coyote (scat)
~~CRHO~~ GRHO? (map)
WREN WCSP MODO ETHA
Behr's mm
side-blotched liz
west coast lady
CATH

Dich esp
Anno mon
Camponotus sp.
Cryptantha sp.
Lot scO
Mir cal
Hirsh inc
Sal col
Phac cic
Phac parryi
Eschscholzia cal
Lasth cal

(107mi)

Warner Ranch QCB Survey Area 4 (TLW) 4/7/08

S: 1205
10-1 cc
winds < 4kph
76°F

E: 1455
5-1 cc
winds 4-6kph
95°F

checkered white
painted lady
Sara's orangetip
buckeye
cabbage white
west coast lady
Behr's metalmark
monarch (nectaring on blue dicks)
brown elfin

Warner Ranch QCB Survey Area 1

S: 1505
5-1 cc
winds 10-12 kph
~79°F

E: 1630
3-1 cc
winds 9-10 kph
90°F

Behr's metalmark
Sara's orangetip
checkered wh.
buckeye
painted l.

DWF

Otay Ranch #14 QCB #4

4/8/08

10:30 overcast (100% clouds)
0-2 mph, 66°F – can't survey
10:45 " " 68°F

START 11:00 70°F
12:30 0 mph, 72°F, 60% clouds
3:00 3-7 mph, 80°F 20% clouds
END 4:00 8-12 mph, ~~70~~ ~~72~~°F, 100% clou
clouds moved in, temp dropped rapidly

Butterflies
Painted lady
Buckeye
Checkered white
W. coast lady
Sara o.t.
Anise swallowtail
Acmon blue

Nectar
Dic cap
Eriogonum – 1st flwr
Las

DWF

Warner Ranch Area 1 QCB #4

4/9/08

START 12:15 50% clouds; 1-3 mph; 74°F
2:00 10% clouds; 4-7 mph; 82°F
END 4:30 60% light clouds, 0-3 mph; 74

Butterflies
Sara o.t.
Buckeye
Behr's blue
Painted lady
Checkered white

Nectar
Dic cap
Cry int
Lup sp
Gilia cap
Salv sp
Gilia ang

? Pe 5 5'x5' patch among rocks
Pe Trapped Δ patch of Pe – 50'x80' on w-facing slope
Pe 2 – 50'x3' on bench (Lup sp)
Pe 3 – 2'x2' in path
Pe 4 – 20'x10' among w-facing rocks

JDP

~~6½ hr~~

4/18/08 Warner QCB Area 1
1000 - 1530
@ site: 1115 - 1400 marks: ~~139~~
① Clear; W 5 kph; 80°F
② 1300; 93°F (flat ridge top); 45% CC; W 16 kph
③ 1400; 93°F; 50% CC; W 8 kph
④
⑤

LEGO, NOMO, WREN
Buckeye :
Sara St ☆ :
Com. W :
~~[redacted]~~
SPTO, CATO, CORA
BEWR, HOFI,
Bher's mm ☆ :
DOTW
Painted L :
Coyote (Scr)
Brown Elfin :

Lot. scop.
Yellow fd. neck
Spree bush
Eupha sp.
Mustard
Bindweed
CA poppy
Blue dicks
Chia sp.
Phacelia sp.
Monkey flower
popcorn fl.
Chamise
Eriog. fas.

DWF

3/20/08 Warner Ranch 2 QCB #1
10:45 0%, 2-4 mph, 64°F
1:30 0%, 2-4, 80°F
END 5:00 10%, 3-6 mph, 69°F

~~Butterflies~~
Painted Lady (flight)
CA buckeye:
~~Painted~~ Lady
Blhrs
Fun Juskywing:
Checkered white:
Brown elfin
Sul fur:

Nectar
Crypt
Dfc cap
Lot salsugin
Legia
Lost cal

Area 7

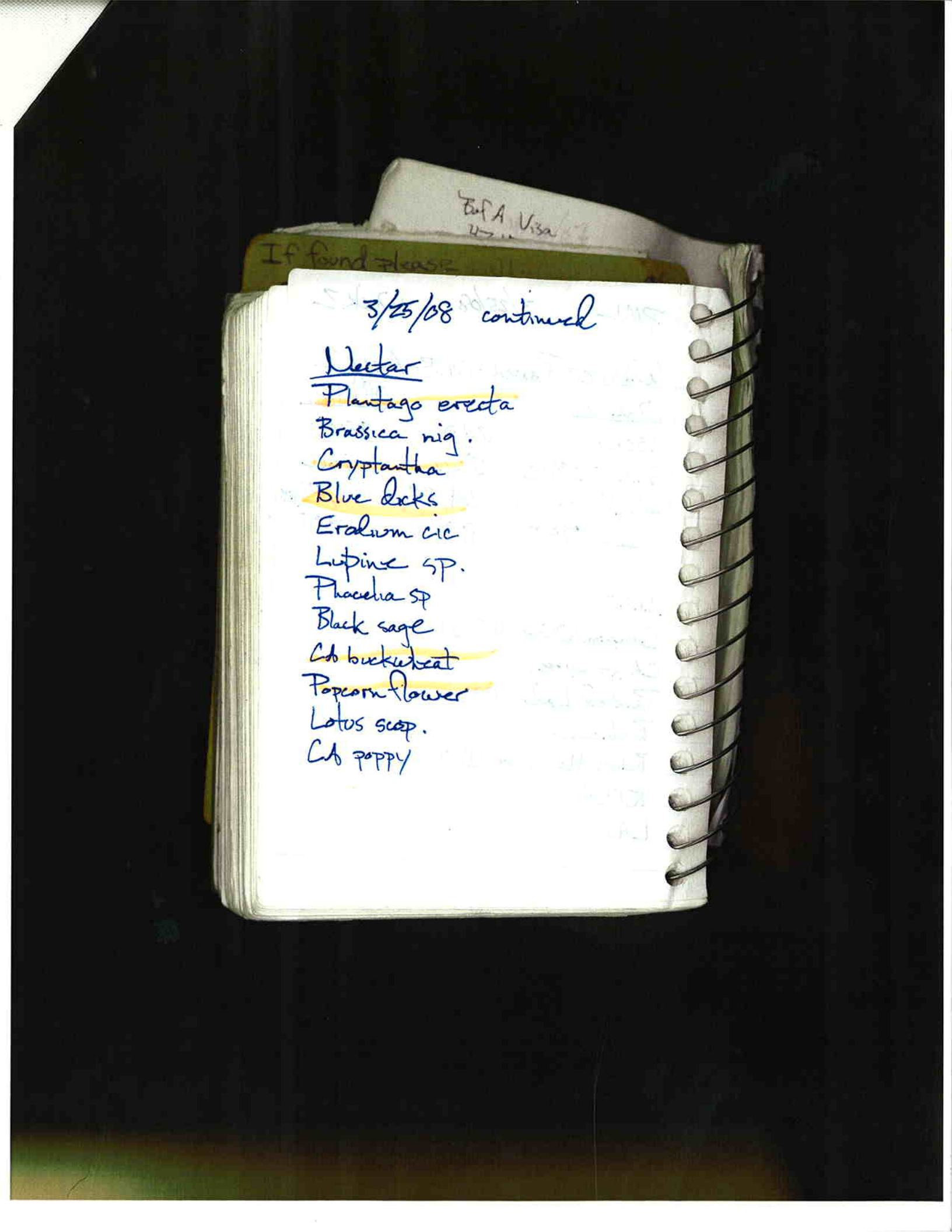
Pe1 - scattered clumps in open CSS ~100 w/ Cryp int, Lot sal Dz cap
Pe2 - 125'x20' patch of dense Pe w/ Cry int, Erod, Opuntia, Eufa same Dz cap
Pe3 - 50'x30' dense Pe in CSS opening - ~90% Pe cover
ce20 - ~~20~~ patch of 20 w/ Cryp, Gilia Camis bis
Pe4 - ~2 ft² in Erod, scalle Area
Pe5 - 35x20' dense/mod in open CSS w/ Erig, Hazardia, Erod lots Cryptantha nearby

PML 3/25/08 Week 2

WERNER RANCH - QCB - AREA 2

	Onsite		Offsite
	1000	1240	1560
Skies:	0% cc	5% cc	5% cc
Wind:	0-3 mph	2-4, 5-7 gusts	1-3, 5-7 gsts
Temp:	73°F	81°F	84°F

LEGO
Common White HH HH I
Ch. gr. squirrel
Painted Lady 100's
Buckeye II
Behrs Metalmark HH II
RTHA
LASP


If found please
3/25/08 continued
Nectar
Plantago erecta
Brassica nig.
Cryptantha
Blue dicks
Eralsum cic
Lupine sp.
Phacelia sp
Black sage
Cal buckwheat
Popcorn flower
Lotus scop.
Cal poppy

Warner QCB 3/31/08

Area 2

Kam Muni

1132h: 70°F ; clear/sunny; 1-3 mph W

1634h: 68°F ; clear/sunny; 4-7 mph W

Behr's metalmark

Vanessa sp. (fly-bys)

painted lady

CATO LEGO CORA HOFI
SPTO LAGO WEBL YEWA
WREN NOMO CAQU WCSP

side-blotched lizard

whiptail - OT or W?

bramble (=green?) hairstreak

funereal duskywing

buckeye

brush rabbit

coyote (scat)

checkered white

CA ground squirrel

large yellow sulphur?

Apis mellifera

gopher snake

Sara's orangetip?

Erig fasc (few, just starting bloom)

Erodium

Amsinckia men

~~Eriodictyon tra~~

Dich cap

Gilia sp. (cap?)

Camissonia sp.

Cryptantha sp.

Lotus sco

Layia

Keckiella

Mirabilis cal

Calandrinia cil

Phacelia sic.

Plantago erecta (crispy)

Phac parryi

Anti coult (very few)

Lotus purshi

Lasthenia sp.

Castilleja exs

Lomatium sp.

Eriophyllum sp.

4/4/08

WARNER - Area 2 - QCB - Week 4

Onsite			Offsite
0940	1100	1300	1500
S: 20% cc	10% cc	5% cc	5% cc
W: 0-3 mph	1-4 mph	2-5 mph	3-5, 6-8g
T: 69°F	73°F	76°F	77°F

Sara's OT 20-30
Common White 20-30
Behr's Metalmark 50-60
Painted Lady 1000+
Buckeye 40-50
W. Tiger Swallowtail
RSHA
CASQ
W. Whiptail

DWF

Warner Ranch Area 2 QCB 45
4/15/08

START	11:20	10% cloudy, 3-7 mph, 76°F
	1:00	10% (light) clouds, 2-5 mph, 86°F
	3:00	30% " , 3-7 mph, 80°F
END	4:30	10% " , 4-7 mph, 78°F

Butterflies

Cabbage white
Buckeye
Sara
Behrs
Painted lady
Sulphur
Checkered white
Acmon blue

Nectar

Dic cap
Erios fas
Cryp int
Sal col
Layia platy

Quino Checkerspot General Form Survey type: Habitat Assessment/Adult Survey

Surveyor: V. Josh Date: 02/20/2008 (mm/dd/yyyy) Site Visit No: 1 2 3 4 5 6 7 8 9 10

Total site acres: _____ Site Name: SA 3 Site Location: Warner Ranch

Time (24 hr)	Sky	Wind (Beaufort)	Temp F or C
Begin 1130	clear/ partcloudy/overcast/fog/drizzle/shower	<1 1-3 4-7 8-12 >12	27
	clear/ partcloudy/overcast/fog/drizzle/shower	<1 1-3 4-7 8-12 >12	
	clear/ partcloudy/overcast/fog/drizzle/shower	<1 1-3 4-7 8-12 >12	
1300	clear/ partcloudy/overcast/fog/drizzle/shower	<1 1-3 4-7 8-12 >12	29
	clear/ partcloudy/overcast/fog/drizzle/shower	<1 1-3 4-7 8-12 >12	
	clear/ partcloudy/overcast/fog/drizzle/shower	<1 1-3 4-7 8-12 >12	
End 1600	clear/ partcloudy/overcast/fog/drizzle/shower	<1 1-3 4-7 8-12 >12	29

Total hours surveyed: _____

Focused Survey Acres: _____ Elev Min: _____ft Max: _____ft

Describe, map, and estimate areas surveyed below. non-host 25-75

Host Plants[a]	Patch Size (ft^2)	No Plants/ft^2	Sparse/Dense[b]	Map ID[c]	
Pe	GPS, patch	bare - 25-75,	sparse - 5-15,	dense 0-5	Pe0301 VJ
Pe	GPS, bare-0-5,	non-host 75-95,	sparse - 0-5,	dense 5-15	Pe0302
Pe	map, bare 0-5,	non-host 75-95,	sparse - 0-5	dense	Pe0304 VJ
Pe	map bare 0-5,	non-host 0-5,	sparse - 0-5,	dense 75-95	J
Pe	map bare	15-50, "	0-5 "	0-5 "	25-75 06
Pe	" "	0-5, "	75-95 "	0-5 "	5-15 07
Pe	" "	0-5 "	75-95 "	5-15 "	0-5 09
Pe	" "	bare 0-5 "	75-95, sparse 0-5	dense 5-15	10

a. Larval or nectar resources. Identify species. b. Sparse= plants not touching; dense = plants touching c. Corresponds to polygon on a map.

Surrounding land uses (including adjoining properties):

North _____ Distance _____ ft/mile

South _____ Distance _____

East _____ Distance _____

West _____ Distance _____

Area 3

Habitat onsite (circle): open soils hilltop ridge Plantago Castil nectar clay soils rock outcrops

Conditions: (e.g.,grazing agriculture sowbugs/earwigs recent fire grad

Other: _____

0- 0-5
5-15
15-50
50-75
75-95 95-100

0-5
5-25
25-75
75-95
95-100

Hp0303VJ - 250 plants
Hp0308VJ - 400

Butterflies Observed (larvae or adults)	Number	Comments
Pale Swallowtail (*Paplio eurymedon*)		
Anise Swallowtail (*P. zelicaon*)		
West Tiger Swallowtail (*P. rutulus*)		
Sara Orangetip (*Anthocharis sara*)		
Felder's Orangetip (*A. cethura*)		
Cabbage White (*Artogeia rapae*)		
Sleepy Orange (*Eurema nicippe*)		
Common White (*Pontia protodice*)		
California Dogface (*Zerene eurydice*)		
Alfalfa Butterfly (*Colias eurytheme*)		
Harford's Sulfur (*C. harfordi*)		
California Ringlet (*Coenonympha californica*)		
Monarch (*Danaus plexippus*)		
Queen (*D. gilippus*)		
Herms's Checkerspot (*Euphydryas chalcedona hennei*)		
Calcedon Checkerspot (*E. chalcedona chalcedona*)		
Quino Checkerspot (*E. editha quino*)		
Gabb's Checkerspot (*Charidryas gabbii*)		
Leanira Checkerspot (*Thessalia leanira wrighti*)		
Mylitta Cresent (*Phyciodes mylitta*)		
Painted Lady (*Vannessa cardui*)	1	
West Coast Lady (*V. annabella*)	II	
Virginia Lady (*V. viginiensis*)		
Red Admiral (*V. atalanta*)		
Buckeye (*Junonia coenia*)	III	
Mourning Cloak (*Nymphalis antiopa*)		
California Sister (*Adelpha bredowii californica*)		
Satyr Anglewing (*Polygonia satyrus*)		
Lorquin's Admiral (*Basilarchia lorquini*)		
Western Tailed Blue (*Everes amyntula*)		
Southern Blue (*Glaucopsyche lygdamus australis*)		
Echo Blue (*Celastrina ladon echo*)		
Sonoran Blue (*Philotes sonorensis*)		
Marine Blue (*Leptotes marina*) 1		
Acmon Blue (*Icaricia acmon*) Funeral skipper	III	
Pygmy Blue (*Brephidium exilis*)		
Gray Hairstreak (*Strymon melinus*)		
Brown Elfin (*Incisalia augustinus*)		
Perplexing Hairstreak (*Callophrys perplexa*)		
Grt Purple Hairstreak (*Atlides halesus*)		
Behr's Metalmark (*Apodemia mormo virgulti*)	4	
Wright's Metalmark (*Calephelis wrightii*)	~~4~~	
Lady sp	+++ +++ 1	

$(9^{15}-3^{\frac{15}{22}})(-7mi)$

Warner Ranch QAB Survey - Area 3 3/25/08
TLW

S: 1012
10% cc
winds 2-4 kmh
64°F

E: 1430
clear skies
winds 4-6 w/gusts up to 10 kmh
87°F

west coast lady
painted lady
Behrs metalmark
funereal duskywing
cabbage white
monarch (nectaring on blue dicks)
anise swallowtail
buckeye
checkered white

Good nectar source with the blue dicks.
Grassier areas are vegetated w/ bromes + erodium

Pe was detected at road confluence, small patch w/ 100-200 plants.

A lot of the Pe grew in conjunction with open rocky areas w/ low flat rocks, cryptobiotic crust, and dried selaginella.

The AGL areas proposed for exclusion support knee deep hordeum + thistle. No nectar sources were identified here.

FML 3/31/08

WARNER RANCH - Area 3, Week 3

Onsite		Offsite
1030	1200	1400
S: 10% cc	5% cc	5% cc
W: 1-3 mph	2-5 mph	3-5, 6-8g
T: 66°F	71°F	70°F

Painted Lady 100's
Common White |||| ||||
Behr's MM |||| ||||
Buckeye ||||
Fox Duskywing ||||

Nectar

Lotus scop
Black sage
Blue dicks
Lupine sp

Cal Buckwheat
Erodium cic
Brassica
Cryptantha sp
Chia

JDP

4.5
1.5
Qk

4/9/08 Warner QCB Survey
Area 3
0930 - 1530 miles = ~~158~~
@ Site: 1100 - 1345
① 1100; 78°F; W 0-1 kph; 50% CC
②
③ ~~[illegible]~~
④ W 6 kph; 25% CC; 89°F (SE fac. slope) (1345)

WILDLIFE

SCJA, ANHU, LEGO
CATO, HOFI; PHAIN
BUSH, COYT; MODO
Buckeye
Painted Lady
Cab. W.
SPTO, Br. rab.
Others mm
Sara OT E.

Flowering Plants

Blue Dicks
Mustard
Prickly Pear Cactus
Spice Bush
Black Sage
CA Poppy

Warner Ranch QCB 4/14/09

Kam Nhu Area 3

1347h: 86°F; sunny/clear; 6-8 mph W
1634h: 80°F; sunny/clear; 4-7 mph W

Sara's orangetip
SPTO LEGO CATH BUSH
WSCB CATO COVE MODO
buckeye
painted lady
American lady
checkered white
HOFI
Behr's metalmark
Crotalus viridis
Apis mellifera

Warner Ranch QCB 3/20/08
Area 4

Kam Muri

1100h: 64°F; 1-2 mph W; clear/sunny
1630h: 72°F; 3-5 mph W; clear/sunny

Vanessa sp.
SPTO RSHA WREN WSCJ
painted lady
CORA ACWO CAQU CATO
LEGO MOLI(scat) NOPL?

southern blue
cabbage
tree frogs (calls)
Euro honeybee
bobcat(scat)
OATI
COHA
kingbird sp.
Sara's orangetip
brown elfin
Behr's mm
funereal duskywing
green hairstreak

Camissonia sp.?
Calystegia
Phacelia parry
Lupinus spp.
Keck asst (yellow fls)?
Mimulus sp. (yellow) 1-2' tall, toc folded/fringed
whispering bells
Hdi sco
Lasthenia
Mirabilis cal
Brassica nig

Didrolastamma
Salvia mel
Solanum xant
Plantago erecta
no new Catanrea; only last years dead plants.
rocket ships!
Ceanothus tomentosus
hemlock
miner's lettuce
Epodium
Eschscholzia
Acalis castillejoides
Phacelia cic
Lomatium
Camchalagua
ctisia
marsh mac
Nemophila
Cryptantha
Lotus sco
Lotus purch
Anti coult
Mimulus

Quino Checkerspot General Form Survey type: Habitat Assessment/Adult Survey

Surveyor: V. Boshi Date: 03/26/2008 (mm/dd/yyyy) Site Visit No: 1 2 3 4 5 6 7 8 9 10

Total site acres: _____ Site Name: Warner Site Location: SA #4

Time (24 hr)	Sky	Wind (Beaufort)	Temp F or C
Begin 1000	clear/ partcloudy/overcast/fog/drizzle/shower	<1 1-3 4-7 8-12 >12	79
	clear/ partcloudy/overcast/fog/drizzle/shower	<1 1-3 4-7 8-12 >12	
	clear/ partcloudy/overcast/fog/drizzle/shower	<1 1-3 4-7 8-12 >12	
	clear/ partcloudy/overcast/fog/drizzle/shower	<1 1-3 4-7 8-12 >12	
	clear/ partcloudy/overcast/fog/drizzle/shower	<1 1-3 4-7 8-12 >12	
	clear/ partcloudy/overcast/fog/drizzle/shower	<1 1-3 4-7 8-12 >12	
End 1600	clear/ partcloudy/overcast/fog/drizzle/shower	<1 1-3 4-7 8-12 >12	82

Total hours surveyed: _____

Focused Survey Acres: _____ Elev Min: _____ft Max: _____ft

Describe, map, and estimate areas surveyed below.

Host Plants[a]	Patch Size (ft^2)	No Plants/ft^2	Sparse/Dense[b]	Map ID[c]	

a. Larval or nectar resources. Identify species. b. Sparse= plants not touching; dense = plants touching c. Corresponds to polygon on a map.

Surrounding land uses (including adjoining properties):

North _____ Distance _____ ft./mile

South _____ Distance _____ ft./mile

East _____ Distance _____ ft./mile

West _____ Distance _____ ft./mile

Habitat onsite (circle): open soils hilltop ridge Plantago Castilleja soil crusts old roads nectar clay soils rock outcrops

Conditions: (e.g.,grazing agriculture sowbugs/earwigs recent fire grading)

Other: _____

Butterflies Observed (larvae or adults)	Number	Comments
Pale Swallowtail (*Papilio eurymedon*)		
Anise Swallowtail (*P. zelicaon*)		
West Tiger Swallowtail (*P. rutulus*)		
Sara Orangetip (*Anthocharis sara*)		
Felder's Orangetip (*A. cethura*)		
Cabbage White (*Artogeia rapae*)		
Sleepy Orange (*Eurema nicippe*)		
Common White (*Pontia protodice*)		
California Dogface (*Zerene eurydice*)		
Alfalfa Butterfly (*Colias eurytheme*)		
Harford's Sulfur (*C. harfordi*)		
California Ringlet (*Coenonympha californica*)		
Monarch (*Danaus plexippus*)		
Queen (*D. gilippus*)		
Hermes's Checkerspot (*Euphydryas chalcedona hennei*)		
Calcedon Checkerspot (*E. chalcedona chalcedona*)		
Quino Checkerspot (*E. editha quino*)		
Gabb's Checkerspot (*Charidryas gabbii*)		
Leanira Checkerspot (*Thessalia leanira wrighti*)		
Mylitta Crescent (*Phyciodes mylitta*) Lady sp.	IIII	
Painted Lady (*Vannessa cardui*)		
West Coast Lady (*V. annabella*)	IIII II	
Virginia Lady (*V. viginiensis*)		
Red Admiral (*V. atalanta*)		
Buckeye (*Junonia coenia*)	1	
Mourning Cloak (*Nymphalis antiopa*)		
California Sister (*Adelpha bredowii californica*)	1	
Satyr Anglewing (*Polygonia satyrus*)		
Lorquin's Admiral (*Basilarchia lorquini*)		
Western Tailed Blue (*Everes amyntula*)		
Southern Blue (*Glaucopsyche lygdamus australis*)		
Echo Blue (*Celastrina ladon echo*)		
Sonoran Blue (*Philotes sonorensis*)		
Marine Blue (*Leptotes marina*)		
Acmon Blue (*Icaricia acmon*)		
Pygmy Blue (*Brephidium exilis*)		
Gray Hairstreak (*Strymon melinus*)		
Brown Elfin (*Incisalia augustinus*)		
Perplexing Hairstreak (*Callophrys perplexa*)		
Grt Purple Hairstreak (*Atlides halesus*)		
Behr's Metalmark (*Apodemia mormo virgulti*)	II	
Wright's Metalmark (*Calephelis wrightii*)		

TLW (107mi)

Warner Ranch QCB Survey Area 4 4/7/08

S: 1205
10% cc
winds < 4kph
76°F

E: 1455
5% cc
winds 4-6kph
95°F

checkered white
painted lady
Sara's orangetip
buckeye
cabbage white
west coast lady
Behr's metalmark
monarch (nectaring on blue dicks)
brown elfin

Warner Ranch QCB Survey Area 1

S: 1505
5% cc
winds 10-12 kph
87°F

E: 1630
3 cc
winds 9-10 kph
90°F

Behr's metalmark
Sara's orangetip
checkered wh.
buckeye
painted l.

JDP

~~6h~~

4/12/08 Warner Ranch Area 4 QCB
0930 - 1530
miles: ~~138~~
@Stc: 1100 - 1400

1. 92F; Clear; W10kph; 1100 (flat)
2. 1218; Clear; W 1kph; 89F (NE fac. slope)
3. 1400; Clear; W 5kph; 94F (flat)
4.
5.

AMKE, HOFI, EUST
Sora OT :
po.go. (mo.)
NRWSW, PHAIN, LEGO
cab. w. :
Buckeye :
Com. w. :
Painted L. :
Bhers nm. :
Fun skp.
CATO, MODO, BUSH
SPTO, WREN, GRRR
St. Queen
Uta St.
CORA, TUVU, RTHA
CAKI, ANHU, CATH
BEWR, SCJA
Coyote (se)
Buckeye

Mustard
Lot. Scalp.
Bindweed
Spree Bush
Black Sage
Popcorn fl.
Blue Dicks
Daffodil sp.
Tree tobacco
Yellow fiddleneck
Monkey flower
CA poppy

Warner QCB 4/15/08
Area 4

Kam Mun

1102h: 72°F; clear/sunny; 4-9 mph W
1410h: 78°F; clear/sunny; 6-12 mph W

Sara's orangetip
WREN CATO WSCJ
SPTO ~~RSHA~~
common kingsnake
buckeye
Behr's metalmark
pale tiger swallowtail
CA sister
grey hairstreak
acmon blue
yellow

Area 5

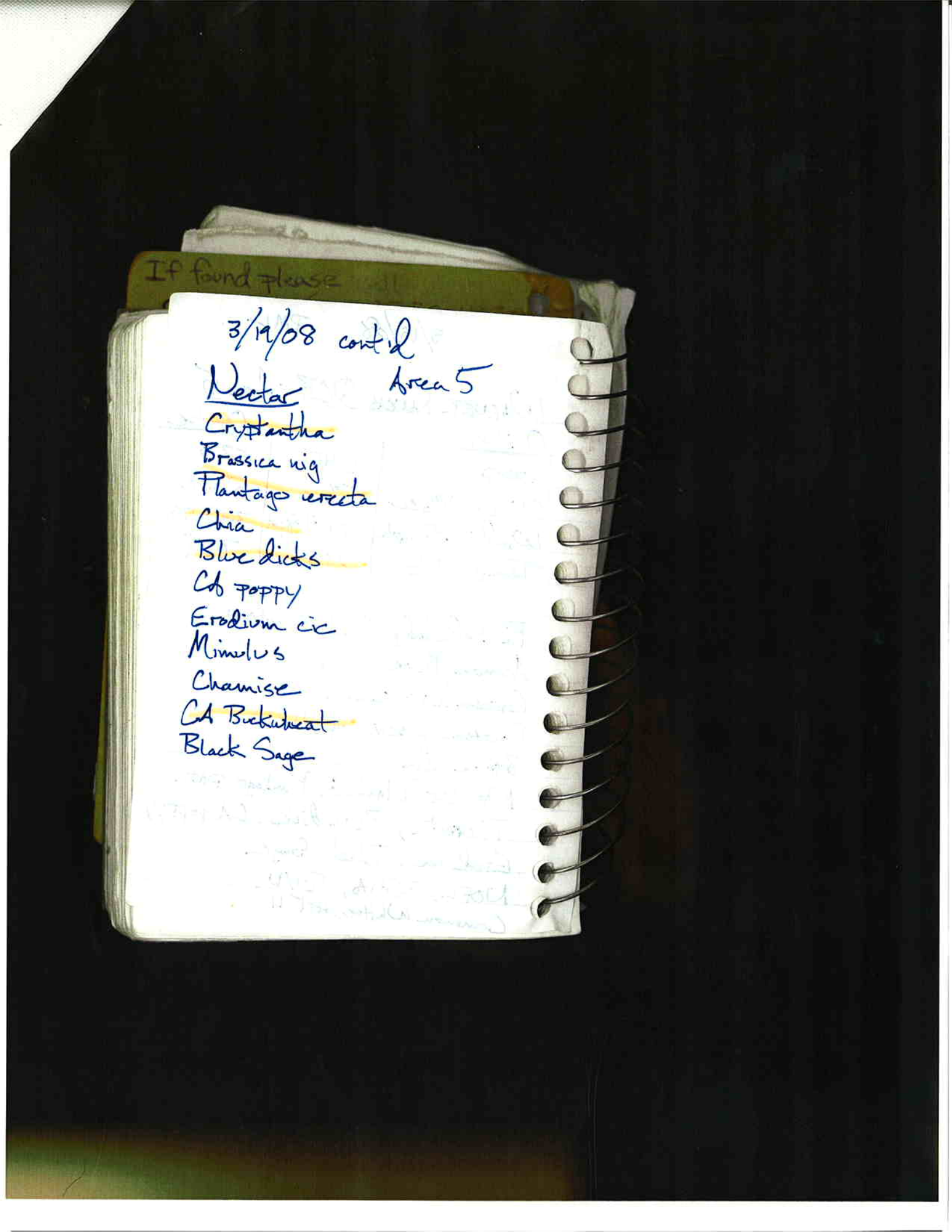
3/19/08 PML

Week 1

Warner Ranch QCB - Area 5

Onsite		Offsite
1000	1245	1530
Skies: 10% cc	5% cc	5% cc
Wind: 2-5 mph	2-5, 7-8 gust	3-5, 7-8
Temp: 65°F	68°F	71°F

Painted lady IIII IIII 50-100
Acmon Blue IIII I
Green Hairstreak II
Funereal Duskywing III
Brown elfin I
Nectar Plants: Plantago pat? ovata?
P. erecta, Blue dicks, CA poppy,
Eradium, Black Sage.
NOFL, RSHA, TUVU,
Common White IIII II


If found please
3/19/08 cont'd
Area 5
Nectar
Cryptantha
Brassica nig
Plantago erecta
Chia
Blue dicks
Cal poppy
Erodium cic
Mimulus
Chamise
CA Buckwheat
Black Sage

3/26/08 Week 2 for JDP

Warner Ranch - QCB - Area 5

	Qsite		Offsite
	1040	1220	1530
Skies:	0% cc	0% cc	0% cc
Wind:	2-4 mph 5-8 gusts	2-5, 7-9 gusts	1-3, 5-8 g
Temp:	72°F	75°F	77°F

Painted Lady 50-100
Buckeye HHT I
Common White 50-100
Behr's MM HHT HHT II
Green Hairstreak I
West Coast Lady II
Funereal Duskywing II
~~RSH~~

Quino Checkerspot General Form Survey type: Habitat Assessment/Adult Survey Area 5

Surveyor: BAO Date: 4/1/2008 (mm/dd/yyyy) Site Visit No: 1 2 3 4 5 6 7 8 9 10

Total site acres: 110 Site Name: Warner Springs Site Location: Pala

Time (24 hr)	Sky	Wind (Beaufort)	Temp F or C
Begin 1000	clear/ partcloudy/overcast/fog/drizzle/shower	<1 1-3 4-7 8-12 >12	60
	clear/ partcloudy/overcast/fog/drizzle/shower	<1 1-3 4-7 8-12 >12	
	clear/ partcloudy/overcast/fog/drizzle/shower	<1 1-3 4-7 8-12 >12	
	clear/ partcloudy/overcast/fog/drizzle/shower	<1 1-3 4-7 8-12 >12	
	clear/ partcloudy/overcast/fog/drizzle/shower	<1 1-3 4-7 8-12 >12	
	clear/ partcloudy/overcast/fog/drizzle/shower	<1 1-3 4-7 8-12 >12	
End 1530	clear/ partcloudy/overcast/fog/drizzle/shower	<1 1-3 4-7 8-12 >12	65

Total hours surveyed: 5.5

Focused Survey Acres: _____ Elev Min: _____ft Max: _____ft

Describe, map, and estimate areas surveyed below.

Host Plants[a]	Patch Size (ft^2)	No Plants/ft^2	Sparse/Dense[b]	Map ID[c]	

a. Larval or nectar resources. Identify species. b. Sparse= plants not touching; dense = plants touching c. Corresponds to polygon on a map.

Surrounding land uses (including adjoining properties):

North open Distance _____ ft./mile
South Dev Distance _____ ft./mile
East open Distance _____ ft./mile
West open Distance _____ ft./mile

Habitat onsite (circle): open soils hilltop ridge Plantago Castilleja soil crusts old roads nectar clay soils rock outcrops

Conditions: (e.g.,grazing agriculture sowbugs/earwigs recent fire grading)
Other: _____

Butterflies Observed (larvae or adults)		Number	Comments
Pale Swallowtail (*Papilio eurymedon*)			
Anise Swallowtail (*P. zelicaon*)	I	1	
West Tiger Swallowtail (*P. rutulus*)	II	2	
Sara Orangetip (*Anthocharis sara*)	III	3	
Felder's Orangetip (*A. cethura*)			
Cabbage White (*Artogeia rapae*)	IIII III	8	
Sleepy Orange (*Eurema nicippe*)			
Common White (*Pontia protodice*)			
California Dogface (*Zerene eurydice*)			
Alfalfa Butterfly (*Colias eurytheme*)			
Harford's Sulfur (*C. harfordi*)			
California Ringlet (*Coenonympha californica*)			
Monarch (*Danaus plexippus*)			
Queen (*D. gilippus*)			
Henne's Checkerspot (*Euphydryas chalcedona hennei*)			
Calcedon Checkerspot (*E. chalcedona chalcedona*)			
Quino Checkerspot (*E. editha quino*)			
Gabb's Checkerspot (*Charidryas gabbii*)			
Leanira Checkerspot (*Thessalia leanira wrighti*)			
Mylitta Cresent (*Phyciodes mylitta*)			
Painted Lady (*Vannessa cardui*)	IIII IIII III VVVVVVVVVVVVXV	78	
West Coast Lady (*V. annabella*)	IIII IIII	10	
Virginia Lady (*V. viginiensis*)			
Red Admiral (*V. atalanta*)	I	1	
Buckeye (*Junonia coenia*)	IIII IIII IIII IIII IIII IIII	30	
Mourning Cloak (*Nymphalis antiopa*)	I	1	
California Sister (*Adelpha bredowii californica*)			
Satyr Anglewing (*Polygonia satyrus*)			
Lorquin's Admiral (*Basilarchia lorquini*)			
Western Tailed Blue (*Everes amyntula*)			
Southern Blue (*Glaucopsyche lygdamus australis*)			
Echo Blue (*Celastrina ladon echo*)			
Sonoran Blue (*Philotes sonorensis*)			
Marine Blue (*Leptotes marina*)			
Acmon Blue (*Icaricia acmon*)	IIII	5	
Pygmy Blue (*Brephidium exilis*)			
Gray Hairstreak (*Strymon melinus*)			
Brown Elfin (*Incisalia augustinus*)			
Perplexing Hairstreak (*Callophrys perplexa*)	II	2	
Gt Purple Hairstreak (*Atlides halesus*)			
Behr's Metalmark (*Apodemia mormo virgulti*)	IIII IIII IIII IIII II	22	
Wright's Metalmark (*Calephelis wrightii*)			

Warner QCB
Area 5

4/7/08

Kam Muni

1332h: 74°F ; 4-6 mph; Sunny
1737h: 68°F ; 2-4 mph; sunny

buckeye
checkered white
Sara's orangetip
Anise swallowtail

NOPL SPTO COYE
LEGO
painted lady
hummingbird sp.

JDP

4/15/08 Warner QCB Area 5 ~~7hr~~ 138 ~~150~~ miles
1045 – 1730
@site: 1220 – 1550
① 1220; Clear; w 0-3kph; 84°F (flat/bare)
② 1348; Clear; w 19 kph; 88°F
③ 1558; Clear; w 10 kph; 85°F (flat)
④

~~Wildlife~~

WF Liz.
CORA
HOFI
ANHU
~~Brers~~ mm:
Sora OT!:
CATD
Cab w:
LEGO
Bush
Coyote (sc)
~~Harpia sp~~
Com W ~~OT~~
Painted lady:
Mule dr (sc)
po. go. (mo.)
Orange Sulphur?:
TWH
Wa st.

~~Flowering Plants~~

Lot. scop.
Popcorn f.
Bindweed
CA poppy
Blue Dicks
Phacelia sp.
Chamise
Mustard
Yucca w.
Lupin (sp)
Er. og. fag.
Bedstraw
Rock rose

APPENDIX H

2010 Warner Ranch Arroyo Toad Survey

MEMORANDUM

To:	Mark Hayden, Capstone Advisors WHP Warner Ranch, LP 1545 Faraday Avenue Carlsbad, CA 92008
From:	Jeff Priest
Subject:	Warner Ranch Arroyo Toad Survey of Gomez Creek
Date:	November 2, 2011

This memorandum discusses the results of focused surveys for the federally-listed endangered arroyo toad (*Anaxyrus (=Bufo) californicus*) conducted by Dudek biologist Jeff Priest (Permit # TE-840619-2). Surveys were conducted in 2010 within Gomez Creek and Pala–Temecula Creek in conformance with currently accepted USFWS survey protocol (USFWS 1999). Gomez Creek is a perennial tributary to the San Luis Rey River (SLRR), within the Warner Ranch site (site) in the community of Pala, San Diego County, California. The site is located northwest of the Pala Casino Resort and Spa, approximately four miles east of Interstate 15, west of Pala Temecula Road, and immediately north of Highway 76. The central portion of the site is about 330 feet in elevation, is relatively flat, as are the 100–200-foot wide stretches of bank along Gomez Creek on the west and the two other small drainages on the eastern portion of the site. The rest of the site consists of hillsides up to 1,000 feet above mean sea level. Below is a brief summary on the surveys conducted and the survey findings.

The USFWS protocol requires six diurnal (daytime) and six nocturnal (nighttime) surveys to be conducted between March 15 and July 1 during non-full-moon situations. Each diurnal/nocturnal survey pair must be completed within 24 hours of each other and paired surveys must occur at least 7 days apart. At least one survey pair must occur in April, May, and June. The creek area was surveyed on 12 paired occasions under appropriate weather and moon conditions. The conditions during each survey listed were appropriate for detecting trout and are presented in Table 1.

Table 1
Survey Conditions

Date	Hours	Conditions (cloud cover; mph wind; air temperature; water temperature) Start: <10% cc; 0–3 mph wind; 59°F; N/A	End: <10% cc, 0–3 mph wind, 55°F; N/A
04/29/10	Diurnal: 1610-2000 Nocturnal: 2000-2300	Start: 64°F air; 57°F water; 20% cc; 0-2 mph wind End: 50°F air; 54°F water; 0% cc; 0-1 mph wind	Start: 50°F air; 54°F water; 0% cc; 0-1 mph wind End: 47°F air; 52°F water; 30% cc; 0-2 mph wind
05/26/10	Diurnal: 1710-2000 Nocturnal: 2000-2210	Start: 68°F air; 60°F water; 5% cc; 0-5 mph wind End: 58°F air; 60°F water; 0% cc; <1 mph wind	Start: 58°F air; 60°F water; 0% cc; <1 mph wind End: 55°F air; 60°F water; 10% cc; 0-1 mph wind
06/02/10	Diurnal: 1045-1315 Nocturnal: 1945-2245	Start: 70°F air; 58°F water; 30% cc; 0-3 mph wind End: 77°F air; 60°F water; 80% cc; 1-5 mph wind	Start: 60°F air; 61°F water; 0% cc; <1 mph wind End: 56°F air; 58°F water; 0% cc; 0-<1 mph wind
06/09/10	Diurnal: 1823-2000 Nocturnal: 2000-2200	Start: 65°F air; 63°F water; 0% cc; 1-4 mph wind End: 60°F air; 63°F water; 50% cc; 0-1 mph wind	Start: 60°F air; 63°F water; 50% cc; 0-1 mph wind End: 58°F air; 61°F water; 100% cc; <1 mph wind
06/30/10	Diurnal: 1750-2030 Nocturnal: 2030-2200	Start: 72°F air; 65°F water; 0% cc; 0-3 mph wind End: 60°F air; 64°F water; 0% cc; <1 mph wind	Start: 60°F air; 64°F water; 0% cc; <1 mph wind End: 59°F air; 63°F water; 0% cc; <1 mph wind
07/06/10	Diurnal: 1620-2000 Nocturnal: 2000-2145	Start: 70°F air; 65°F water; 0% cc; 1-4 mph wind End: 64°F air; 64°F water; 100% cc; 0-1 mph wind	Start: 64°F air; 64°F water; 100% cc; 0-1 mph wind End: 60°F air; 63°F water; 100% cc; <1 mph wind

VEGETATION COMMUNITIES

The following is a description of vegetation communities present within the survey area of Gomez Creek and Pala-Temecula Creek.

Sycamore Alluvial Woodland

This is a winter-deciduous, open, broad-leafed riparian community, with sycamores (*Platanus racemosa*) being the predominate species present and blue elderberry (*Sambucus nigra* ssp. *cerulea*) and California buckeye (*Aesculus californica*) often appearing in the subcanopy. Introduced grasses and mulefat (*Baccharis salicifolia*) comprise the understories of these communities. On site, sycamore alluvial woodland occurs both alongside Gomez Creek and the eastern tributary channel, but clearly above the ordinary high water mark (OHWM) for both

channels. Mature western sycamores are the predominant species, occurring as an open, tall structure with a relatively dense non-native understory along Gomez Creek and a more sparse understory along the eastern tributary channel.

Mulefat Scrub

The mulefat scrub vegetative community is composed of tall, herbaceous riparian shrubs and trees, strongly dominated by mulefat (Holland 1986). This community often occurs in intermittent stream channels exposed to regular flooding. Besides mulefat, several willow species (*Salix exigua* and *S. lasiolepis*), and hoary nettle (*Urtica dioica* ssp. *holosericea*) are characteristic of this community.

Mulefat scrub is found within the southern, downstream segment of Gomez Creek, from just above the existing concrete Arizona crossing of the creek within the ranch, to SR-76 along the southern border. This segment is characterized by an approximately 5–15-foot deep, mostly steeply incised channel. Vegetation cover varies from 5%–100% generally with lower cover, isolated to channel bed margins, occurring in more highly scoured (i.e., less topsoil) situations.

Southern Coast Live Oak Riparian Forest

According to Holland (1986), this community can range from an open to a dense evergreen, riparian, and sclerophyllous woodland. Coast live oak (*Quercus agrifolia*) is the dominant species, and seems to have richer herb diversity and fewer understory shrubs compared to other riparian communities. This community flourishes on fine-grained alluvium in bottomlands and outer floodplains of bigger streams. Big-leaf maple (*Acer macrophyllum*), mugwort (*Artemisia douglasiana*), manroot (*Marah macrocarpus*), California wild rose (*Rosa californica*), blue elderberry, and poison oak (*Toxicodendron diversilobum*) are among the species contained in the southern coast live oak riparian forest.

Southern coast live oak riparian forest occupies the OHWM and slopes above the OHWM on either side of Gomez Creek, along Pala-Temecula Creek, and within the northern tributary to Gomez Creek. In this area, the channel also contains arroyo willow, mulefat, and an herbaceous understory. Along the small stretch of Pala–Temecula Creek on site, oaks occur sparsely along an open sandy channel.

Southern Cottonwood-Willow Riparian Forest

Open, winter-deciduous broadleaved riparian forests with shrubby willow understories and dominating cottonwood (*Populus* spp.) and willow species characterize this community. Frequently overflowed and sub-irrigated lands alongside streams and rivers provide the moist, mineral soil necessary for dominant species recruitment in this seral type, as well recruitment for common species such as mulefat, sycamore, hoary nettle, and big-leaf maple (Holland 1986).

The majority of vegetation within Gomez Creek within the OHWM is mapped as southern cottonwood-willow riparian forest. Species composition includes a mixture of arroyo willow (*S. lasiolepis*), Fremont's cottonwood (*Populus fremontii*), and coast live oak in the tree layer; a shrub layer of mulefat and giant cane (*Arundo donax*), which varies from sparse to dense; and a herbaceous layer that varies in cover according to shrub density and rock exposure and includes dwarf nettle (*Urtica urens*), water speedwell (*Veronica angallis-aquatica*), Parish's monkeyflower (*Mimulus parishii*), narrow-leaved willow (*S. exigua*), and cocklebur (*Xanthium strumarium*).

METHODS

The surveys mentioned were performed on foot and along the reach of Gomez Creek and Pala-Temecula Creek within the project site.

Diurnal surveys consisted of walking slowly along the creek and in adjacent riparian habitat while searching for eggs, larvae, and juveniles. Nocturnal surveys consisted of walking along the creek, stopping frequently, while listening for the arroyo toad's diagnostic trill.

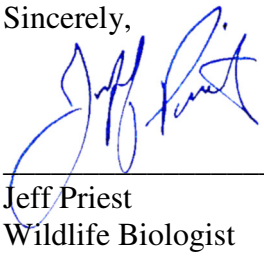
RESULTS

Results of the focused survey were negative. No arroyo toad were detected during 2010 surveys nor during earlier surveys conducted in 2005. CNDDB shows a record from 2000 within one kilometer of the project site in the San Luis Rey River, and it has been known to occur within the San Luis Rey River.

Please feel free to contact me at 760.479.4287 with questions or if you require additional information.

I certify that the information in this survey report and attached exhibits fully and accurately represent my work.

Sincerely,



_____

Jeff Priest
Wildlife Biologist

REFERENCES

Holland, R.F. 1986. *Preliminary Descriptions of the Terrestrial Natural Communities of California.* Nongame-Heritage Program, CDFG. October 1986.

USFWS. 1999. Survey protocol for the arroyo toad. May 19. http://www.fws.gov/ventura /speciesinfo/protocols_guidelines/docs/arroyotoad/arroyotoad_surveyprotocol.pdf.

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APPENDIX I

Warner Ranch Trout Survey

DUDEK

MAIN OFFICE
605 THIRD STREET
ENCINITAS, CALIFORNIA 92024
T 760.942.5147 T 800.450.1818 F 760.632.0164

MEMORANDUM

To:	Mary Larson, Tim Hovey, California Department of Fish and Game
From:	Jeff Priest, Thomas Liddicoat, Vipul Joshi, Dudek
Subject:	Warner Ranch Trout Survey of Gomez Creek
Date:	January 20, 2011
Attachment(s):	Figure 1, Regional Map
	Figure 2, Vicinity Map
	Figure 3, Trout Survey Area
	Attachment A, Stream Survey Memorandum December 17, 2007
	Attachment B, Copy of CDFG Email Correspondence
	Attachment C, CDFG Trout Tissue Sample Collection Protocol
	Attachment D, Trout Photo Exhibits

This memorandum discusses the presence of trout observed in Gomez Creek and documents an effort to capture and collect a tissue sample per recommendations by the California Department of Fish and Game (CDFG). Gomez Creek is a perennial tributary to the San Luis Rey River (SLRR), within the Warner Ranch site (site) in the community of Pala, San Diego County, California (Figure 1). The site is located northwest of the Pala Casino Resort and Spa, approximately four miles east of Interstate 15, west of Pala Temecula Road, and immediately north of Highway 76. The central portion of the site is about 330 feet in elevation, is relatively flat, as are the 100–200-foot wide stretches of bank along Gomez Creek on the west and the two other small drainages on the eastern portion of the site. The rest of the site consists of hillsides up to 1,000 feet above mean sea level (Figure 2). Below is a brief chronological summary on the stream surveys conducted, the survey findings, and the current status of trout detected.

In September of 2005, Dudek biologists Jeff Priest (JP), Scott Boczkiewicz (SB) and Brock Ortega (BO) conducted an initial presence/absence stream survey for southern steelhead trout (*Oncorhynchus mykiss irideus*) for the project site. In September of 2006, Dudek biologists Jeff Priest and Scott Boczkiewicz conducted another presence/absence stream survey for trout on site. In April 2010, Dudek biologists Jeff Priest and Thomas Liddicoat (TL) conducted a focused survey for special-status species (i.e., arroyo toad) along Gomez Creek on site. In November 2010, ECORP biologists Brian Zitt (BZ), Todd Chapman (TC), CDFG biologist Tim Hovey (TH), and Dudek biologist Thomas Liddicoat conducted a presence/absence stream survey for

trout on site in an attempt to collect a tissue sample. The conditions during each survey listed were appropriate for detecting trout and are presented in Table 1.

Table 1
Survey Conditions

Date	Hours	Personnel	Conditions (cloud cover; mph wind; air temperature; water temperature)
9/19/05	0730–1030	BO, JP, SB	Start: partly cloudy; 0 mph wind; 70°F; 65°F End: partly cloudy, 0 mph wind, 80°F; 65°F
9/12/06	0800–1100	JP, SB	Start: partly cloudy; 0 mph wind; 68°F; 62°F End: partly cloudy, 0 mph wind, 71°F; 62°F
4/29/10	1615–1840	JP, TL	Start:1% cc; 2–5 mph wind; 64°F; 57°F End: 1% cc; 0–3 mph wind, 58°F; 57°F
11/23/10	0700–1120	BZ, TC, TH, TL,	Start: <10% cc; 0–3 mph wind; 59°F; N/A End: <10% cc, 0–3 mph wind, 55°F; N/A

METHODS

The surveys mentioned were performed on foot and along the reach of Gomez Creek within the project site. This section of Gomez Creek is approximately 0.75 of a mile long beginning approximately 1 mile upstream from the confluence with the SLRR and continuing upstream to the northern limits of the site (Figure 3). The headwaters to Gomez Creek occur off-site and were not examined during the surveys. During each survey the biologists carefully and quietly hiked from downstream to upstream along the edges of Gomez Creek to detect any trout and document any potential areas within the reach that may be suitable to support trout. Details regarding the methodology of surveys prior to 2010 are presented in a letter attached to this memorandum (Attachment A).

The survey conducted in April 2010, was performed on foot using the same methods described for surveys conducted in 2005 and 2006; however, the survey focus was for arroyo toad (*Bufo Californicus*) and not for trout. The same 0.75 mile stretch of Gomez Creek was carefully hiked from downstream to upstream along the edges of the creek. Although trout was not the focus, any observations were recorded directly in the field into a notebook. The focused surveys were conducted along the edges of Gomez Creek from the end of April through the end of July.

After correspondence with CDFG in October 2010 (Attachment B), a follow-up survey was recommended and conducted in November 2010. During this survey Mr. Liddicoat led the fish biologists (Mr. Chapman, Mr. Hovey, and Mr. Zitt) on foot to the location where the trout was observed. Nets and an Electrofisher machine were used to aide in the capture, tissue sample

collection, and identification of any trout present. The CDFG recommendation and tissue collection protocol is included as Attachment C. In addition to the Electrofisher machine, a large 15-gallon bucket, hand nets, two gill nets, a tape measure, and a digital fish scale were also carried on site to collect information on any captured fishes. Immediately after arrival to the pools, Mr. Chapman and Mr. Zitt evaluated the area and installed a gill net on the downstream side of the pool to restrict any fishes from escaping the pool downstream. The pool was blocked upstream by existing rocks and tiering, and did not require a gill net. Prior to using the machine within the creek, Mr. Chapman tested the water conductivity and set the correct electronic frequency based on the conductivity and approximate fish size to avoid directly killing fishes present in the pool. Once the Electrofisher was tuned appropriately to the area, Mr. Chapman began probing the stream. While probing, Mr. Hovey and Mr. Zitt were ready to net anything flushed out by the Electrofisher machine. Any aquatic species detected from the Electrofisher probing were captured and immediately placed into a 15-gallon live-well bucket containing water collected at the pool. The Electrofisher was used by Mr. Chapman with assistance from Mr. Zitt and monitored by Mr. Hovey. Only two pools, directly adjacent to each other, were probed with the Electrofisher machine during the survey. Adjacent areas within Gomez Creek, approximately 200 feet upstream and downstream of the two pools probed, were also evaluated by Mr. Hovey for the potential to support trout and none were identified; thus, the Electrofisher machine was not used anywhere else on site.

RESULTS

Results of the surveys from 2005 yielded the detection of two trout species within separate pools, approximately 50–100 yards apart. No fin clips, scales, or any other parts of the fish were collected during the survey, and both of the fish were left in the pools. The subsequent survey in 2006 yielded no trout detected. Further details on these surveys and the results are presented in Attachment A of this memorandum.

During the focused surveys conducted during 2010, only one individual trout was observed swimming in a pool on site. Photo exhibits taken of the trout on site are presented in Attachment D of this memorandum. An analysis of photographs taken from 2005 and in 2010 confirmed that the trout observed in 2005 and 2010 were located in the same pool (Figure 3; Attachment D).

Results of the follow-up survey and tissue collection effort with CDFG were negative. No trout were detected as a result of using the Electrofisher machine in either the pool where the trout was observed repeatedly in 2010 or in the adjacent pool immediately downstream. A single, large sunfish (*Lepomis* sp.) (approximately 9 inches long), a few mosquito fish (*Gambusia* sp.), and a few unknown species of crayfish were captured during the Electrofisher probing and were immediately placed in the live-well buckets. Per recommendation of CDFG biologist Mr. Hovey,

the non-native species captured (i.e., crayfish and sunfish) were euthanized on site and not released back into Gomez Creek.

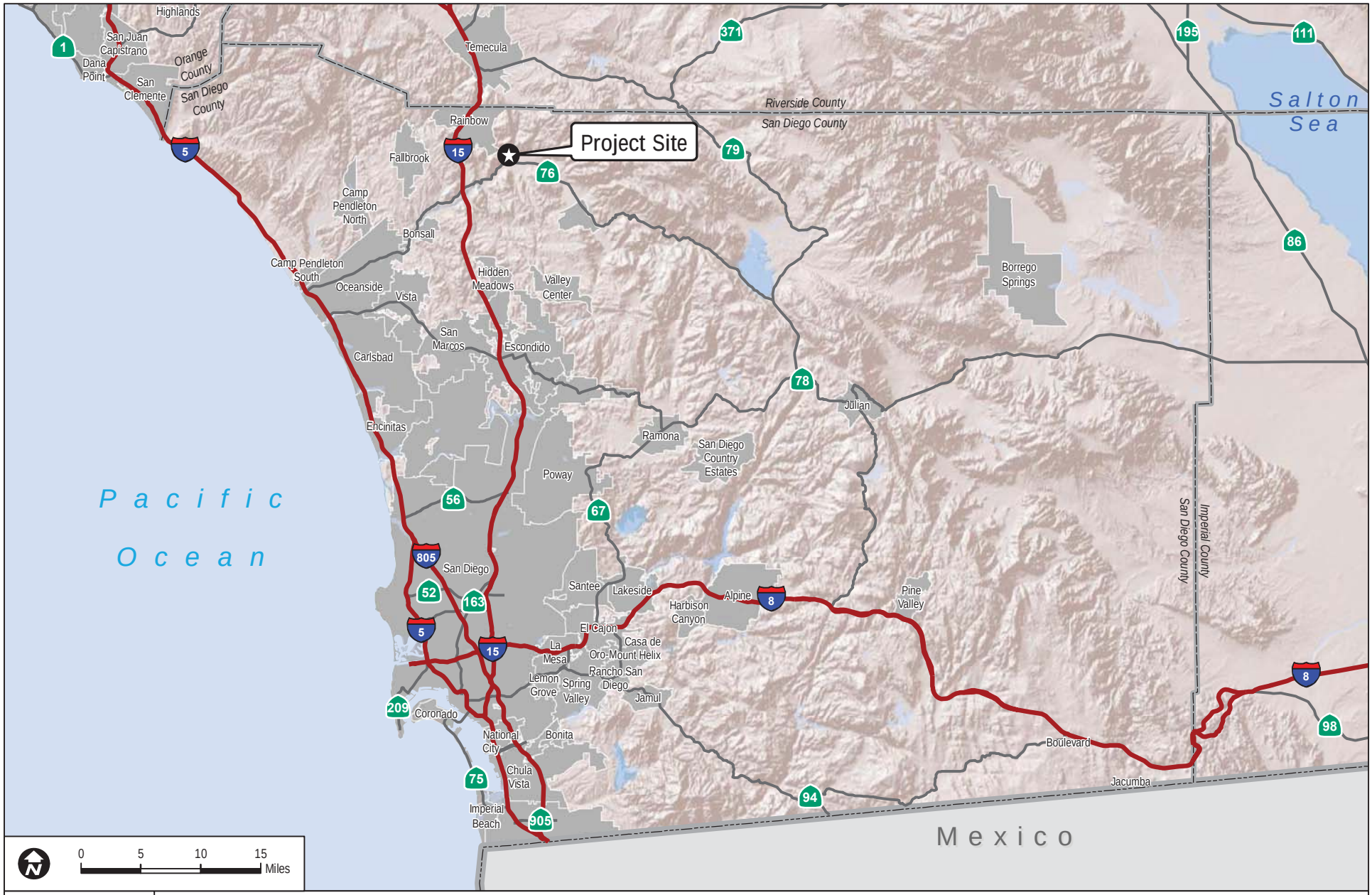
CONCLUSION

It was determined that the trout observed during surveys in 2005 and in 2010 is not a native steelhead trout, but rather a stocked trout. During the survey on November 23, 2010, it was confirmed that historical trout stock ponds are present within Gomez Creek, located immediately upstream of the project site, on the adjacent property to the north. At that time, the property owner, Mr. Murietta, spoke with CDFG representative Tim Hovey and Dudek biologist Thomas Liddicoat. Mr. Murietta informed them that he has multiple ponds upstream of the Warner Ranch project site that he has stocked with trout and steelhead from a hatchery approximately 15 or more years ago. As Mr. Murrieta led the two biologists onto his property and to the stocked ponds, he stated that during past winter storms, very high creek flows breached his ponds and most of the trout/steelhead were washed downstream. In the subsequent years, he attempted to capture his lost fish and retrieved as many as he could find. Mr. Murrieta agreed that the fish observed in Gomez Creek on Warner Ranch is most likely one of his escaped fish and that there are probably a few other pond-locked individuals downstream of his property (i.e., Warner Ranch), and in the retention pond south of Highway 76 (i.e., the old Fenton/Hansen Aggregate Facility) where he has retrieved many of his fish, or in the SLRR.

Additionally, flows within Gomez Creek are historically low and the SLRR is constrained in this area by elevated benches, development and roads. Further, the hydrologic flows and topography of the SLRR have been altered by the Pala casino upstream, and the old Fenton/Hansen Aggregate facility downstream of its intersection with Gomez Creek.

Ultimately, personal communication with CDFG at the end of the last survey was that sufficient evidence was collected to determine that previously observed trout on the Warner Ranch site were washed downstream from artificially stocked ponds and are not steelhead migrating upstream from the Pacific Ocean; thus, no additional surveys or analysis is required. Dudek has requested written confirmation of this conclusion from CDFG which, when provided, will be included as Attachment E to this letter.

If you have any questions regarding this memorandum or would like additional information about the surveys conducted please contact Jeff Priest 760.479.4287 or Vipul Joshi 760.479.4284.



DUDEK

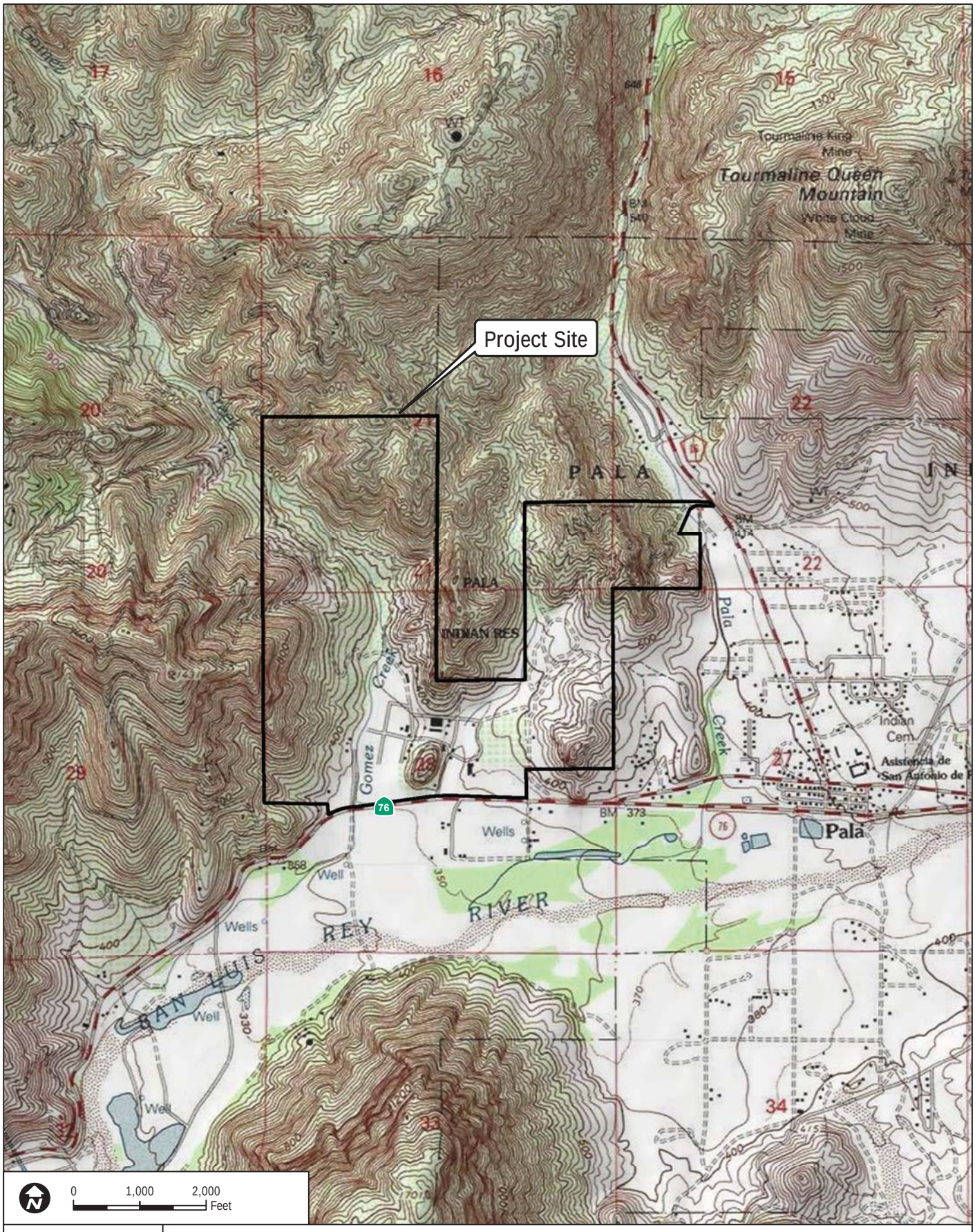
6653-07

JANUARY 2011

FIGURE 1

Regional Map

Warner Ranch - 2011 Gomez Creek Trout Memo



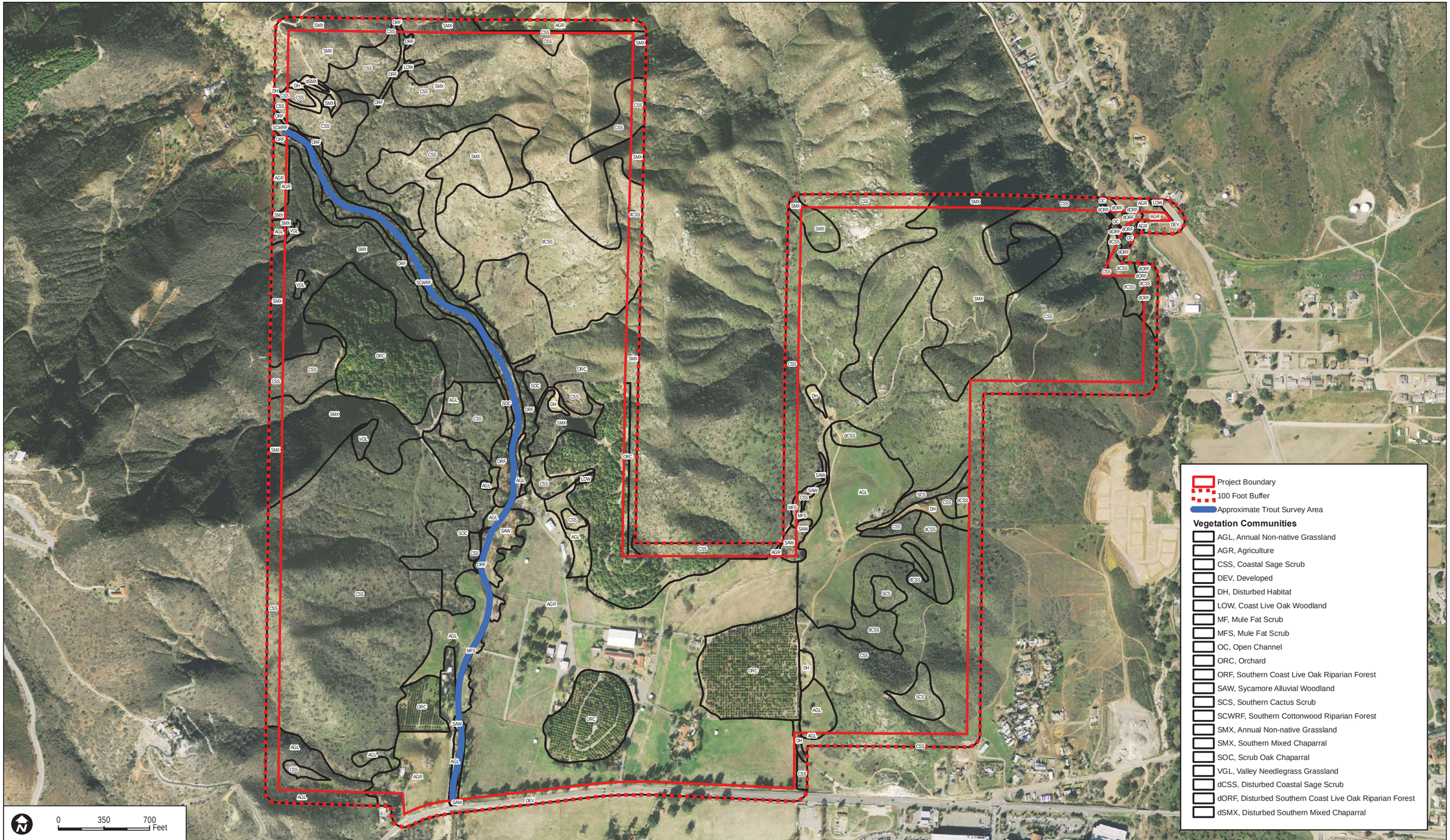
DUDEK

SOURCE: ArcGIS Online World Topographic Map Service

FIGURE 2
Vicinity Map

6653-07
JANUARY 2011

Warner Ranch - 2011 Gomez Creek Trout Memo



DUDEK

6653-07

JANUARY 2011

SOURCE: Digital Globe 2008

FIGURE 3

Trout Survey Area

Warner Ranch - 2011 Gomez Creek Trout Memo

ATTACHMENT A

Stream Survey Memorandum December 17, 2007

DUDEK

MAIN OFFICE
605 THIRD STREET
ENCINITAS, CALIFORNIA 92024
T 760.942.5147 T 800.450.1818 F 760.632.0164

MEMORANDUM

December 13, 2007 4488-01

TO: Dave Kajtaniak, California Department of Fish and Game

FROM: Jeff Priest, Scott Boczkiewicz, Vipul Joshi, Dudek

RE: **Warner Ranch Stream Survey of Gomez Creek**

Dudek biologists Jeff Priest, Scott Boczkiewicz and Brock Ortega conducted an initial presence/absence stream survey for southern steelhead (*Oncorhynchus mykiss irideus*) trout for the Warner Ranch project on September 19, 2005 between the hours of 0730 and 1030. Environmental conditions included a stream water temperature of 65 degrees Fahrenheit (F), partly cloudy skies and air temperatures between 70 and 80 degrees F. Surveys were conducted on foot along the project reach of Gomez Creek, a perennial tributary to the San Luis Rey River (SLRR) in San Diego County located upstream of the Hanson Aggregate Mining Facility and north of State Highway 76.

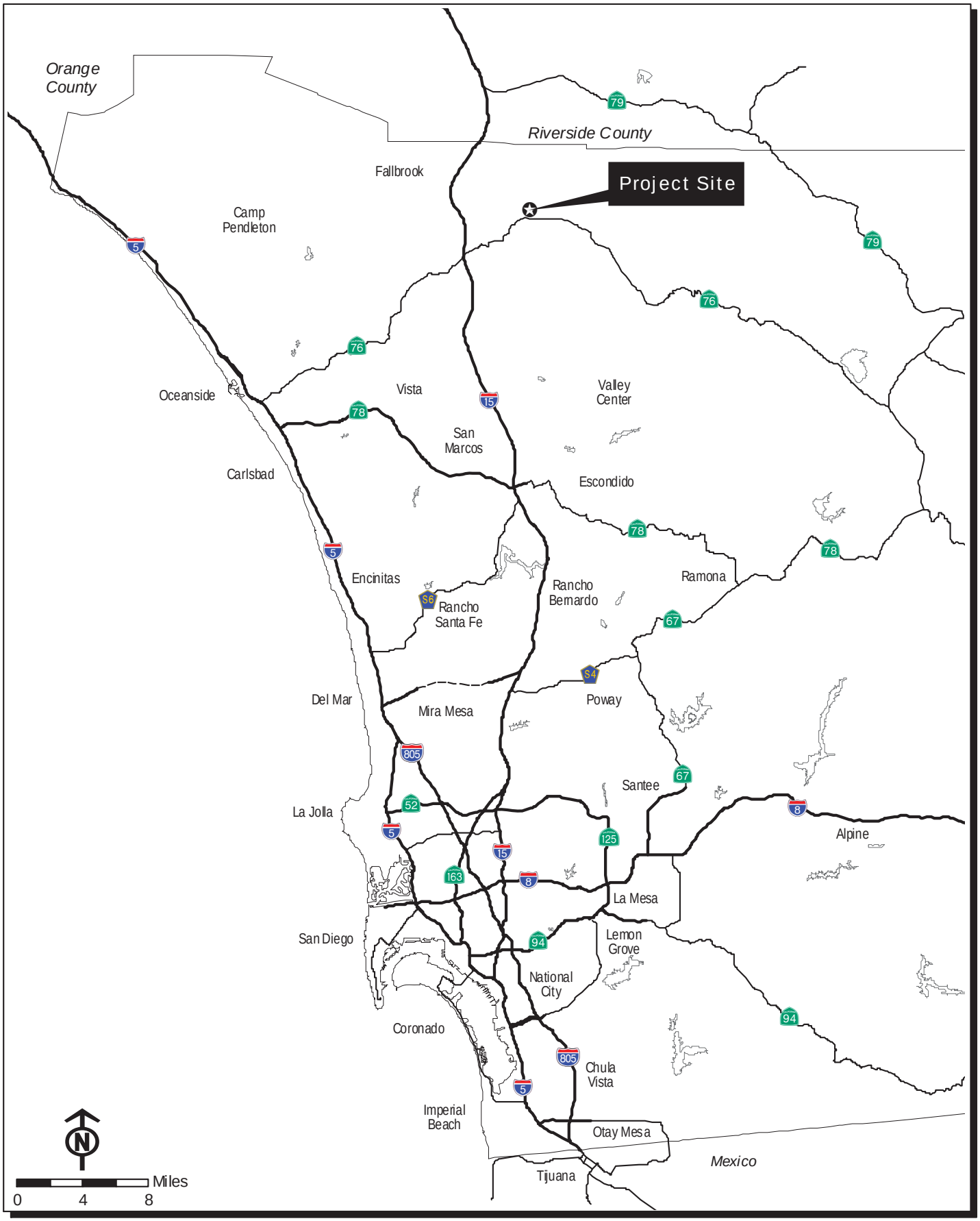
The survey location included an approximately 3/4 mile long reach of the stream channel of Gomez Creek, beginning approximately 1 mile upstream from the confluence Gomez Creek and the SLRR and continuing upstream to the Warner Ranch property limits. The headwaters to Gomez Creek occur off of the Warner Ranch property and were not examined for this survey. Visual surveys were conducted along the entire survey reach, and barbless hooks were used at several pool habitats located near the middle of the survey reach. The water column was very clear at the time of the surveys allowing for highly accurate observations. The stream channel was relatively shallow at the time of the initial survey (between 6 and 22 inches deep), with a majority of the reach composed of shallow glides and riffles. Pool habitats within the survey reach were limited to several plunge pools downstream of log jams and several shaded, overhanging banks that provided pools generally less than 10 feet in length and 2 feet in depth. Much of the stream channel is constrained by bedrock outcrops and boulder complexes, with predominantly sandy and rocky substrates. No gravel dominated substrates were observed within the survey reach that may provide appropriate spawning habitat for southern steelhead trout. Note that the stream channel is well shaded during the summer and is surrounded on both sides by a relatively healthy riparian corridor that extends throughout the survey reach.

Two individual southern steelhead/rainbow trout were observed within the survey reach of Gomez Creek during the 9/19/05 survey. No other fish were observed in the creek. The two individuals were found in separate pools, approximately 50-100 yards apart. One fish was caught on a barbless hook and examined. The fish appeared to be a very healthy southern steelhead/rainbow trout approximately 15 inches long, with a bright silver body and a narrow, pale pink lateral band. No spots or other markings were present above or below the lateral line. The outer lobes of the caudal fin were slightly rounded, and all other fins were in good condition. Although the fish did not secrete when handled, it was presumed to be an adult female based on size, girth and coloration. No fin clips, scales, or any other parts of the fish were collected, ad the fish was returned to the pool after examination. Mr. Allen Greenwood of San Diego Trout was contacted after the survey to aid in identification of southern steelhead/rainbow trout and to help in the assessment of its condition. Mr. Greenwood noted that southern steelhead trout are not currently documented as occurring in Gomez Creek, but that it is possible several fish moved upstream into the creek during the heavy rains that occurred during the winter of 2005. Several pictures were taken to document the fish captured and are attached to this memo. He also noted a poorly documented history of stocking trout in streams like Gomez Creek along the upper SLRR. Several small pools were noted on a U.S.G.S. Topographic map upstream of the survey area, by this area was not examined so their presence could not be confirmed.

A follow-up presence/absence survey was conducted by Mr. Priest and Mr. Boczkiewicz on September 12, 2006 between the hours of 0800 and 1100. Environmental conditions included a stream temperature of 62 degrees F, partly cloudy skies and air temperatures between 68 and 71 degrees F. Although the water levels were slightly higher than those observed during the initial survey, no fish were observed within the survey reach of Gomez Creek during the second survey. All pools were observed to be empty.

If you have any questions regarding this memo or would like additional information about the surveys conducted, please contact Jeff Priest (760) 479-4287 or Scott Boczkiewicz (760) 479-4266.

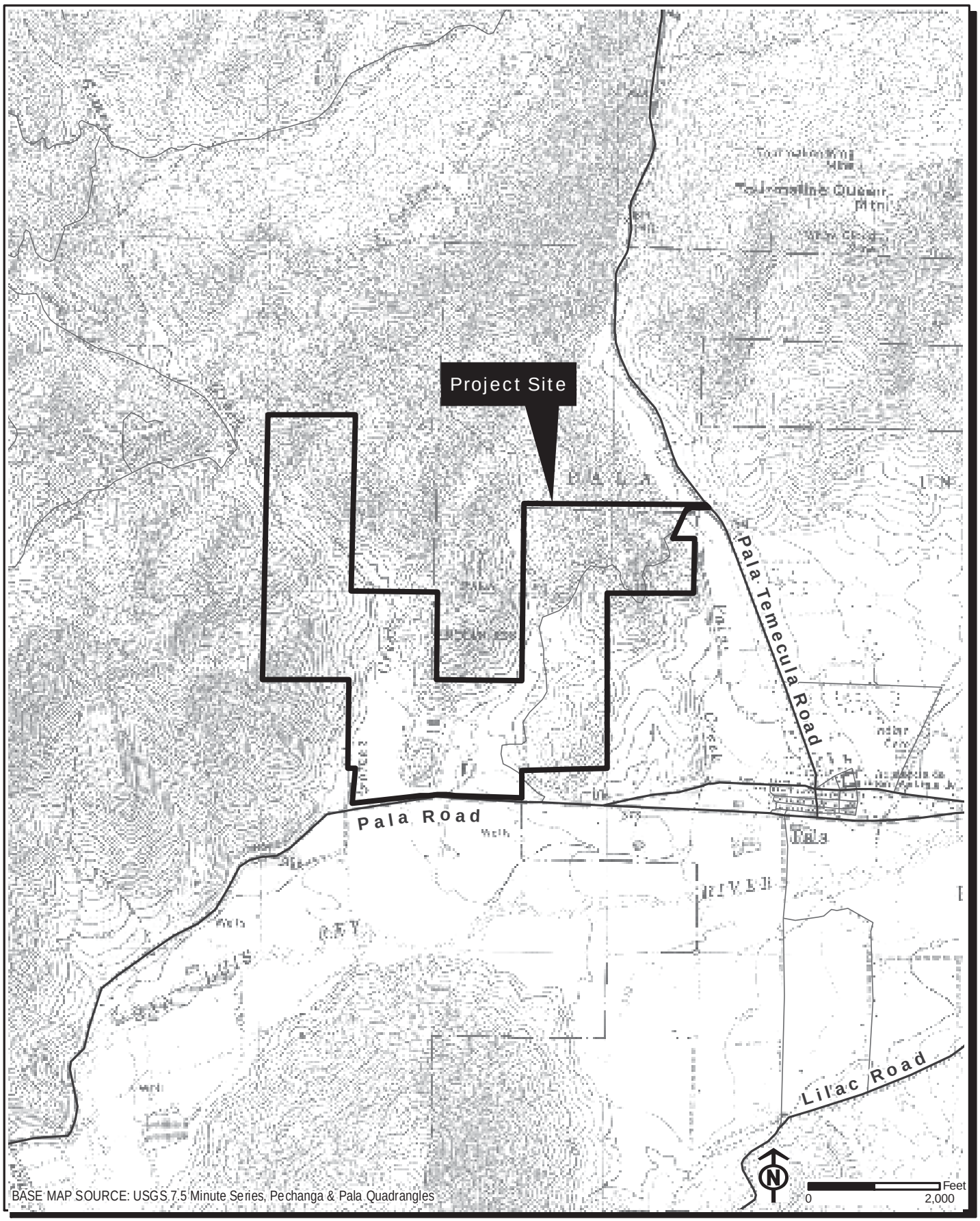
Att: Figures 1-2
Photos 1-4



Warner Ranch Project

Regional Map

FIGURE 1



Warner Ranch Project

Vicinity Map

FIGURE
2

Photo 1

Photo 2

Photo 3

Photo 4 Trout Pool Habitat

ATTACHMENT B

Copy of CDFG Email Correspondence

Hi Jeff:

Here is the protocol you should use to collect a sample from the trout on Warner Ranch if you should happen to find it. If the fish is small, a smaller genetic sample can be taken so as not to harm the fish's ability to swim. Smallest sample NMFS can use is a 1x1 mm square.

Thank for your help with this.

mary

Mary L. Larson
Senior Fisheries Biologist Supervisor
South Coast Region
4665 Lampson Avenue, Suite C
Los Alamitos, CA 90720
w: 562-342-7186
c: 562-537-8624
f: 562-342-7153

This office will be closed on the 2nd, 3rd, and 4th Friday of every month pursuant to the Governor's Exec Order S-12-10

>>> Jeff Priest <jpriest@dudek.com> 10/14/2010 1:53 PM >>>
Hi Mary,

Do you have any feedback on this issue? I will also give you a call to follow up.

Thank you,

Jeff

From: Mary Larson [mailto:MLARSON@dfg.ca.gov]
Sent: Monday, August 30, 2010 10:41 AM
To: Jeff Priest
Cc: David Kajtaniak
Subject: RE: CDFG Feedback requested; Warner Ranch observed trout in GomezCreek

Hi Jeff:
I was out of the office last week so not able to respond to your first e-mail. Due to workload, I will respond in detail to that e-mail tomorrow afternoon.

Mary

Mary L. Larson
Senior Fisheries Biologist Supervisor
South Coast Region
4665 Lampson Avenue, Suite C
Los Alamitos, CA 90720
w: 562-342-7186
c: 562-537-8624
f: 562-342-7153

>>> Jeff Priest <jpriest@dudek.com> 8/30/2010 10:16 AM >>>
Hi Mary and Dave,

I just wanted to follow up on this request. Please let me know your thoughts on this when you have a chance.

Thanks,
Jeff

JEFF PRIEST
Project Manager / Wildlife Biologist

DUDEK
605 Third Street
Encinitas, CA 92024
T: 760.479.4287
F: 760.942.9976

www.dudek.com

From: Jeff Priest
Sent: Wednesday, August 18, 2010 12:43 PM
To: 'mlarson@dfg.ca.gov'; 'David Kajtaniak'
Cc: Brock Ortega; Vipul Joshi
Subject: CDFG Feedback requested; Warner Ranch observed trout in Gomez Creek
Importance: High

Hi Mary,

Dave Kajtaniak (CDFG) referred me to you regarding an observation of a trout within Gomez Creek in the Pala area on the Warner Ranch project site. We are requesting feedback from CDFG regarding this issue.

Based on anecdotal information from residents, as well as comments from Dave Kajtaniak who also gathered anecdotal information from the area, the resident immediately upstream of the Warner Ranch site is likely stocking man-made ponds (or has in the past) with trout within Gomez Creek. Additionally, flows within Gomez Creek are historically low and the San Luis Rey River is constrained in this area by elevated benches, development, roads and the hydrologic flows and topography has been altered by the Pala casino upstream, and the old Fenton/Hansen aggregate facility downstream of it's intersection with Gomez Creek. Based on these factors, we believe it is highly likely that the trout observation on Warner Ranch was an individual trout that was washed (or jumped) from the probable stocking area upstream, and made its way 400-500 feet downstream to the location where it was observed on Warner Ranch.

At the downstream edge of this small ponded area where the trout was observed within Gomez Creek, the creek is cobble with a depth of 1 to 3 inches and the trout was unable to move any further downstream during the course of observations made between April and the end of July, 2010, during

focused surveys for arroyo toad, least Bell's vireo and southwestern willow flycatcher (14 visits). Additionally, the flow within Gomez Creek dwindled and dried up within the Warner Ranch project area in early May (after the first arroyo toad survey and observation of the trout) so the creek has not connected to the San Luis Rey River all season. The trout was approximately 12-15 inches (photos attached). The pond is approximately 2 feet deep at its greatest depth, but averages around 6-12 inches and includes an overhanging bank that the trout uses to hide.

A trout was observed in this exact pond during a survey in 2005. A 2006 survey was negative. A memo is attached which provides details of this observation as well as communication with Dave Kajtaniak on this issue.

We are requesting that CDFG provide feedback on this issue in regard to our preparation of the biotech report in support of an EIR. Although the project will not directly impact Gomez Creek, the trout observation needs to be addressed in the report. We do not have permission to access the upstream property to document the presence of stocking ponds and therefore will be basing our determination on the evidence we have provided you herein (anecdotal information of upstream stocking by residents and CDFG staff and hydrologic conditions in the San Luis Rey River and Gomez Creek). At this point, our conclusion is that it is highly likely that the fish is a stocked rainbow trout that washed down from the upstream stocking area.

We would like to get CDFG feedback on this issue now rather than during the public comment period and make sure we are presenting sufficient evidence for our conclusion. Please let us know what your thoughts are, and any recommendations you have regarding this issue.

Thank you,

Jeff

JEFF PRIEST
Project Manager / Wildlife Biologist

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ATTACHMENT C

CDFG Trout Tissue Sample Collection Protocol

STEELHEAD TISSUE COLLECTION PROTOCOLS

AIR DRIED METHOD

I. **Record all data on the coin envelope**. Use only one envelope per fish. If the envelope is not pre-stamped, include the following data: date, location with landmarks, sample ID number GPS coordinates (if available), fork length (mm), sex of fish, collector's name, fin which sample was taken from, species of fish, adipose fin present or absent, and any other information pertaining to the sample.

II. From each fish, choose a fin (caudal, pectoral, dorsal, etc.) in the best condition. Take a fin-clip (size indicated in Figure 1) from a clean edge of the fin (Figure 2). Do not take tissue from the adipose fin as there is little DNA provided in that sample.

III. Place the tissue sample on one piece of filter paper and fold paper over to cover the sample. Place filter paper into the coin envelope.

IV. Vigorously agitate scissors in water between samples to prevent cross contamination.

V. If you are dealing with fresh dead fish, cut open each fish and examine the gonad tissue to confirm the sex of the fish. Write any remarks concerning the sample in the notes section of the data sheet (e.g. the fish looks like a male, but has female gonads)

VI. Either in the field after collection, or in the office immediately upon return from the field, air-dry all samples on the same filter paper. The samples are dry when all mucous and moisture has evaporated and the tissue feels dry to the touch. Sun drying in the field works best and can be done quickly. Drying fins indoors usually takes 24 hours.

VII. Record the appropriate field and lab preservation methods (both will normally be noted in the "other" column as "air dried") on the data sheet.

When completely dry, repackage tissue into its original, **dry**, envelope and attach to field notes for shipment to our lab. Check all envelopes to ensure that the data is filled out completely and legibly. Send samples to Mary Larson, Senior Biologist, California Dept of Fish and Game 4665 Lampson Avenue, Suite C, Los Alamitos, CA 90720.

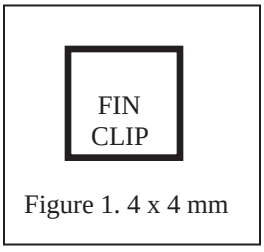
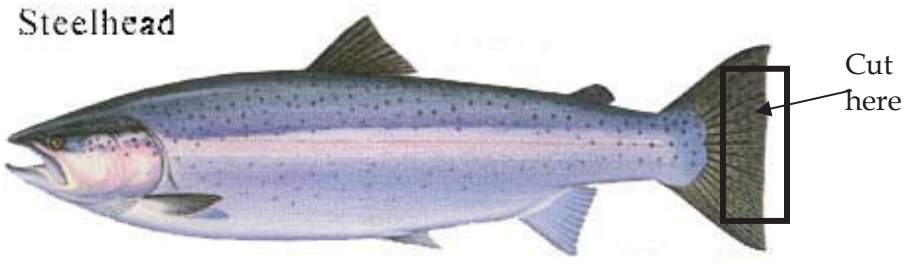


Figure 1. 4 x 4 mm



ATTACHMENT D

Trout Photo Exhibits

ATTACHMENT D
Photo Exhibits

Photo Exhibit 1

Photo Exhibit 1 represents the pool were the trout was observed in 2005. Photo facing downstream within Gomez Creek.
Photo taken 9/19/2005.

Photo Exhibit 2

Photo Exhibit 2 represents the trout captured in 2005 from the pool in Exhibit 1.
Photo taken on 9/19/05.

Photo Exhibit 3

Photo Exhibit 3 represents the pool where a trout was observed in 2010. One can see that this is the same pool in Exhibit 1. Photo facing downstream within Gomez Creek.
Photo taken 4/29/10.

Photo Exhibit 4

Photo Exhibit 4 represents the trout swimming within the pool presented in Exhibits 1 and 3.
Photo taken facing west within Gomez Creek.
Photo taken 5/11/10.

Photo Exhibit 5

Photo Exhibit 5 represents the use of the Electrofisher machine within the pool presented in Photo Exhibits 1 and 3. Photo taken facing downstream within Gomez Creek. Photo taken 11/23/10.

APPENDIX J

Warner Ranch Golden Eagle Survey Memorandum

DUDEK

MEMORANDUM

To: Mark Hayden, Capstone Advisors
From: Vipul Joshi, Dudek
Subject: Warner Ranch Golden Eagle Survey Memorandum
Date: December 27, 2012
cc: Callie Ford, Dudek
Attachment(s): Figures 1–3

This memorandum includes the methods and results of a habitat assessment and nest survey for golden eagle (*Aquila chrysaetos*) conducted for the Warner Ranch Project.

PROJECT LOCATION

The Warner Ranch property is located on State Route-76 (SR-76) in Pala, San Diego County, California, within the U.S. Geological Survey (USGS) 7.5-minute Pala and Pechanga quadrangles; latitude 33°22'18" N, longitude 117˚5’23" W (Figures 1 and 2). The project area includes a portion of Gomez Creek and its channel tributaries on the western side of the property, as well as Pala-Temecula Creek on the easternmost portion of the project area. It is located approximately 1,200 feet north of the San Luis Rey River. The region where the property is situated consists primarily of agricultural and undeveloped lands with the exception of the Pala tribal lands to the east of the site and the community of Rainbow to the northwest.

METHODS

In October 2011 and January 2012, Dudek biologist Jeff Priest conducted a golden eagle nest survey and habitat assessment in areas near the project area that had historically-documented golden eagle nests. These locations include the slopes immediately west of the project area and a location within the San Luis Rey River approximately 1,200 feet from the southwest corner of the project site, adjacent to SR-76. The historical locations were provided by the County of San Diego (County) and Technology Associates (TAIC). The survey method for identifying potential golden eagle nest locations included pedestrian surveys using binoculars (10x42 power), assessing large trees for raptor nests, and evaluating potential raptor nests to determine whether they could support nesting golden eagles. Within the San Luis Rey River, a survey buffer of approximately 2,500 feet from the southwest corner of the project site was used, and included all large trees within the river valley and the historical location of the golden eagle nest provided by the County and TAIC.

In January 2012, an additional breeding-season golden eagle nest survey was conducted within the San Luis Rey River, within the 2,500-foot buffer zone described above. In January, raptor nests are readily visible because most trees in the area are deciduous and have dropped their leaves at this time of year. Survey times and conditions are included in Table 1.

Table 1
Schedule of Golden Eagle Nest Surveys

Date	Staff	Time	Conditions
10/20/11	JDP	8:20a–3:45p	Air: 59–74 ˚F; 60%–0% cc; 0–6 mph
1/5/12	JDP	8:45a–11:00a	Air: 68–75 ˚F; 25%–5% cc; 0–4 mph

RESULTS

No golden eagle nests were observed at the locations provided by the County or TAIC. Figure 3 shows the areas that were surveyed. Due to past fires, the hills surveyed west of the project area did not have any suitable habitat (e.g., coast live oaks [*Quercus agrifolia*]) to support golden eagle nests. Part of this area has burned within the last few years and currently supports a mix of coastal sage scrub and southern mixed chaparral with no large trees present.

Habitat in the San Luis Rey River consists of southern cottonwood willow riparian forest, with cottonwoods (*Populus fremontii*), willows (*Salix* spp.), California sycamores (*Platanus racemosa*), and some coast live oaks. Several raptor nests were observed in the San Luis Rey River within the vicinity of the project; however, the nests were not large enough to indicate they were golden eagle nests. The additional survey in January 2012 was conducted in order to maximize detection of raptor nests for two reasons: 1) during the onset of the raptor nesting season, raptor nesting activities are obvious and easily detectible; and 2) because most trees within the San Luis Rey River are deciduous and have dropped their leaves at this time of year, raptor nests are readily visible. This survey did not detect any nests large enough to support golden eagles.

Based on the available data regarding potential golden eagle nest locations and the results of the surveys of these areas, no golden eagles are nesting within 4,000 feet of the Warner Ranch Project Area.

APPENDIX K

Wetland Determination Data Forms

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Warner Ranch		City/County: Pala, San Diego	Sampling Date: 5 Aug 10
Applicant/Owner: Warner Ranch		State: CA	Sampling Point: DS-1
Investigator(s): Callie Ford, Vipul Joshi		Section, Township, Range: S28, T9S, R2W	
Landform (hillslope, terrace, etc.): streambed	Local relief (concave, convex, none): None		Slope (%):0-5%
Subregion (LRR):Mediterranean C	Lat: 33°22'18.587"N	Long: 117°5'23.36"W	Datum: NAD83
Soil Map Unit Name: Ramona Sandy Loam slope RaB			NWI classification: Riverine streambed

Are climatic / hydrologic conditions on the site typical for this time of year?	Yes ✓	No	(If no, explain in Remarks.)
Are Vegetation ___, Soil __, or Hydrology ___ significantly disturbed? **No**	Are "Normal Circumstances" present?	Yes ✓	No
Are Vegetation __No__, Soil __No__, or Hydrology __No__ naturally problematic? **No**	(If needed, explain any answers in Remarks.)		

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓	No	**Is the Sampled Area within a Wetland?**	**YES**	**NO ✓**
Hydric Soil Present?	Yes	No ✓			
Wetland Hydrology Present?	Yes	No ✓			

Remarks: Sample point has potential to be considered a ACOE/RWQCB Non-wetland Waters, dependent on a Significant Nexus Analysis; it is considered a CDFG Wetland.

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
Total Cover:	%		

Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status
1. Baccharis salicifolia (viminea)	50	Y	FACW
2.			
3.			
4.			
5.			
6.			
7.			
Total Cover:	50%		

Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status
1. Ambrosia psilostachya	5	N	FACU*
2. Artemisia californica	5	N	NI
3. Bromus madritensis	10	Y	NI
4.			
Total Cover:	20%		

Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
Total Cover:			

% Bare Ground in Herb Stratum: 80% | % Cover of Biotic Crust: 0%

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species	**50**	x 2 =	100
FAC species		x 3 =	
FACU species	**5**	x 4 =	20
UPL species		x 5 =	
Column Totals:	55 (A)		120 (B)

Prevalence Index = B/A = 2.18

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

✓ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? **Yes ✓** **No**

Remarks:

SOIL

Sampling Point: DS-1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

	Matrix		Redox Features					
Depth (inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	**10 YR 3/2**	**100**					**Silt sand**	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? **Yes** **No ✓**

Remarks:

Located in a stream bed

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Plowed Soils (C6)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ✓ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Thin Muck Surface (C7)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:				
Surface Water Present?	Yes	No ✓	Depth (inches):	
Water Table Present?	Yes	No ✓	Depth (inches):	
Saturation Present? (includes capillary fringe)	Yes	No ✓	Depth (inches):	

Wetland Hydrology Present? **Yes** **No ✓**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: This sample point was taken in the bottom of the channel.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Warner Ranch | City/County: Pala, San Diego | Sampling Date: 5 Aug 10

Applicant/Owner: Warner Ranch? | State: CA | Sampling Point: DS-2

Investigator(s): Callie Ford, Vipul Joshi | Section, Township, Range: Section 28, Township 9S, Range 2W

Landform (hillslope, terrace, etc.): streambed | Local relief (concave, convex, none): None | Slope (%): 0%

Subregion (LRR):Mediterranean C | Lat: 33°22'18.552"N | Long: 117°5'23.419"W | Datum: NAD83

Soil Map Unit Name: Ramona Sandy Loam slope RaB | NWI classification: Riverine (vegetated streambed)

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? **No** Are "Normal Circumstances" present? Yes ✓ No

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? **No** (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	No ✓	**Is the Sampled Area within a Wetland?**	**YES**	**NO ✓**
Hydric Soil Present?	Yes	No ✓			
Wetland Hydrology Present?	Yes	No ✓			

Remarks: Sample point is considered a non-jurisdictional upland.

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:			

Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
Total Cover:			

Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status
1. Artemisia californica	10	N	NI
2. Eriogonum fasciculatum	30	Y	NI
3. Bromus diandrus	5	N	NI
4.			
5.			
6.			
7.			
8.			
Total Cover:			

Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
Total Cover:			

% Bare Ground in Herb Stratum:55 % Cover of Biotic Crust:

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:
OBL species	**0**	x 1 = 0
FACW species	**0**	x 2 =0
FAC species	**0**	x 3 =0
FACU species	**0**	x 4 =0
UPL species	**0**	x 5 =0
Column Totals:	0 (A)	0 (B)

Prevalence Index = B/A = 0

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? **Yes** **No ✓**

Remarks:

SOIL

Sampling Point: DS-2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-6	**7.5 YR 6/6**	**33**					**Sand**	**Mixed color throughout**
0-6	**10 YR 4/4**	**33**					**Sand**	**Mixed colors throughout**
0-6	**10 YR 2/1**	**33**					**Sand**	**Darker sand particles**

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? **Yes** **No** ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Plowed Soils (C6)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ✓ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Thin Muck Surface (C7)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No ✓ Depth (inches):

Water Table Present? Yes No ✓ Depth (inches):

Saturation Present? (includes capillary fringe) Yes No ✓ Depth (inches):

Wetland Hydrology Present? **Yes** **No** ✓

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: This sample point was taken outside of the channel. Slope and bank of adjacent channel was relatively flat in this area.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Warner Ranch | City/County: Pala, San Diego | Sampling Date: 5 Aug 10

Applicant/Owner: Warner Ranch? | State: CA | Sampling Point: DS-3

Investigator(s): Callie Ford, Vipul Joshi | Section, Township, Range: Section 28, Township 9S, Range 2W

Landform (hillslope, terrace, etc.): streambed | Local relief (concave, convex, none): None | Slope (%): 0-5%

Subregion (LRR): LRR C | Lat: 33°22'16.83"N | Long: 117°5'22.916"W | Datum: NAD83

Soil Map Unit Name: Ramona Sandy Loam slope RaC2 | NWI classification: Riverine (Vegetated streambed)

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No (If no, explain in Remarks.)

Are Vegetation ____, Soil _____, or Hydrology _____ significantly disturbed? **No** Are "Normal Circumstances" present? Yes ✓ No

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? **No** (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓	No	
Hydric Soil Present?	Yes	No ✓	**Is the Sampled Area within a Wetland?** **YES** **NO ✓**
Wetland Hydrology Present?	Yes	No ✓	

Remarks: This sample point does not convey waters of the U.S. based on Significant Nexus determination, but it is considered a CDFG wetlands.

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:			

Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status
1. Baccharis salicifolia	50	Y	FACW
2. Malosma laurina	1	N	NI
3.			
4.			
5.			
Total Cover:	51		

Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status
1. Bromus diandrus	50	Y	NI
2. Ambrosia psilostachya	1	N	FACU*
3.			
4.			
5.			
6.			
7.			
8.			
Total Cover:	51		

Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
Total Cover:			

% Bare Ground in Herb Stratum: 49 % Cover of Biotic Crust:

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:
OBL species		x 1 =
FACW species	**50**	x 2 = 100
FAC species		x 3 =
FACU species	**1**	x 4 = 4
UPL species		x 5 =
Column Totals:	51 (A)	104 (B)

Prevalence Index = B/A = 2.04

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

_✓_ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? **Yes ✓** **No**

Remarks:

SOIL

Sampling Point: DS-3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-8	**10 YR 3/2**	**50**					**Sandy silt**	**Sandy material**
0-8	**5 YR 7/4**	**50**					**Sandy-silt**	**Sand particles**
8+	**Rock**	**100**						

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? **Yes** **No ✓**

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Plowed Soils (C6)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ✓ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Thin Muck Surface (C7)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	No ✓	Depth (inches):
Water Table Present?	Yes	No ✓	Depth (inches):
Saturation Present? (includes capillary fringe)	Yes	No ✓	Depth (inches):

Wetland Hydrology Present? **Yes** **No ✓**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: This sample point was taken in the bottom of the channel.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Warner Ranch | City/County: Pala/San Diego | Sampling Date: 5 Aug 10

Applicant/Owner: Warner Ranch? | State: CA | Sampling Point: DS-4

Investigator(s): Callie Ford, Vipul Joshi | Section, Township, Range: Section 28, Township 9S, Range 2W

Landform (hillslope, terrace, etc.): streambed | Local relief (concave, convex, none): None | Slope (%): 0-5%

Subregion (LRR): LRR C | Lat: 33°22'16.742"N | Long: 117°5'23.007"W | Datum: NAD83

Soil Map Unit Name: Ramona Sandy Loam slope RaC2 | NWI classification: Riverine (vegetated streambed)

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? **No** Are "Normal Circumstances" present? Yes ✓ No

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? **No** (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	No ✓	
Hydric Soil Present?	Yes	No ✓	**Is the Sampled Area within a Wetland?** **YES** **NO ✓**
Wetland Hydrology Present?	Yes	No ✓	

Remarks: This sample point does not convey waters of the U.S. based on Significant Nexus consideration, but it is considered a CDFG wetlands.

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1. Platanus racemosa	30	Y	NI
2.			
3.			
4.			
Total Cover:			

Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status
1. Sambucus nigra ssp caerulea	30	Y	FACU
2.			
3.			
4.			
5.			
Total Cover:			

Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status
1. Bromus diandrus	40	Y	NI
2. Amsinckia menziesii	1	N	NI
3.			
4.			
5.			
6.			
7.			
8.			
Total Cover:			

Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
Total Cover:			

% Bare Ground in Herb Stratum: % Cover of Biotic Crust:

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species **30**	x 4 = 120
UPL species	x 5 =
Column Totals: 30 (A)	120 (B)

Prevalence Index = B/A = 4

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? **Yes** **No** ___✓

Remarks:

SOIL

Sampling Point: **DS-4**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-6	**10 YR 3/2**	**50**					**Sand silt**	**Sandy particles**
0-6	**5 YR 7/4**	**50**					**Sand silt**	**Sandy particles**

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? **Yes** **No** ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Plowed Soils (C6)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ✓ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Thin Muck Surface (C7)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	No ✓	Depth (inches):
Water Table Present?	Yes	No ✓	Depth (inches):
Saturation Present? (includes capillary fringe)	Yes	No ✓	Depth (inches):

Wetland Hydrology Present? **Yes** **No** ✓

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: This sample point was taken at the top of bank approximately 1 foot above channel.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Warner Ranch | City/County: Pala, San Diego | Sampling Date: 5 Aug 10

Applicant/Owner: Warner Ranch? | State: CA | Sampling Point: DS-5

Investigator(s): Callie Ford, Vipul Joshi | Section, Township, Range: Section 28, Township 9S, Range 2W

Landform (hillslope, terrace, etc.): terrace | Local relief (concave, convex, none): None | Slope (%): 0-5%

Subregion (LRR): LRR C | Lat: 33°22'16.747"N Long: 117°5'23.292"W | Datum: NAD83

Soil Map Unit Name: Ramona Sandy Loam slope RaB | NWI classification: Upland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? **No** Are "Normal Circumstances" present? Yes ✓ No

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? **No** (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	No ✓	**Is the Sampled Area within a Wetland?**	**YES**	**NO ✓**
Hydric Soil Present?	Yes	No ✓			
Wetland Hydrology Present?	Yes	No ✓			

Remarks: Sample point is considered a non-jurisdictional upland.

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:			

Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
Total Cover:			

Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status
1. Calystegia macrostegia	20	N	NI
2. Bromus diandrus	50	Y	NI
3.			
4.			
5.			
6.			
7.			
8.			
Total Cover:			

Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
Total Cover:			

% Bare Ground in Herb Stratum: % Cover of Biotic Crust:

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:
OBL species	**0**	x 1 =
FACW species	**0**	x 2 =
FAC species	**0**	x 3 =
FACU species	**0**	x 4 =
UPL species	**0**	x 5 =
Column Totals:	0 (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? **Yes** **No ✓**

Remarks:

SOIL

Sampling Point: **DS-5**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-8	**10 YR 3/2**	**100**					**Silt loam**	**Upland data station**

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? **Yes** **No** ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Plowed Soils (C6)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Thin Muck Surface (C7)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	No ✓	Depth (inches):
Water Table Present?	Yes	No ✓	Depth (inches):
Saturation Present? (includes capillary fringe)	Yes	No ✓	Depth (inches):

Wetland Hydrology Present? **Yes** **No** ✓

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: This point was taken in an upland area outside of the channel.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Warner Ranch | City/County: Pala/San Diego | Sampling Date: 5 Aug 10

Applicant/Owner: Warner Ranch? | State: CA | Sampling Point: DS-6

Investigator(s): Callie Ford, Vipul Joshi | Section, Township, Range: S28 T9S R2W

Landform (hillslope, terrace, etc.): Streambed | Local relief (concave, convex, none): none | Slope (%): 0-5%

Subregion (LRR): LRR C | Lat: 33°22'14.453"N Long: 117°5'51.537"W | Datum: NAD83

Soil Map Unit Name: Las Posas stony fine sandy loam | NWI classification: Riverine (unconsolidated shore-vegetated)

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? **No** Are "Normal Circumstances" present? Yes ✓ No

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? **No** (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓	No	
Hydric Soil Present	Yes ✓	No	**Is the Sampled Area within a Wetland?** **YES** **NO**
Wetland Hydrology Present?	Yes✓	No	

Remarks: Sample point has potential to be considered a ACOE/RWQCB wetland, dependent on a Significant Nexus Analysis; it is considered a CDFG Wetland.

VEGETATION (Use scientific names.)

Tree Stratum **Plot size**: 10'x10'	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:			

Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status
1. Tamarix ramosissima	10	N	FACW
2. Baccharis salicifolia	30	Y	FACW
3.			
4.			
5.			
Total Cover:			

Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status
1. Picris echioides	2	N	NI
2. Cirsium vulgare	2	N	FAC
3. Xanthium strumarium	2	N	FAC
4. Polypogon monspeliensis	2	N	FACW+
5. Artemisia douglasiana	2	N	FAC
6. Rumex crispus	2	N	FACW
7.			
8.			
Total Cover:			

Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
Total Cover:			

% Bare Ground in Herb Stratum: 60% % Cover of Biotic Crust:

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:
OBL species		x 1 =
FACW species	**44**	x 2 = 88
FAC species	**6**	x 3 = 18
FACU species		x 4 =
UPL species		x 5 =
Column Totals:	50 (A)	106 (B)

Prevalence Index = B/A = 2.12

Hydrophytic Vegetation Indicators:

✓ Dominance Test is >50%

✓ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? **Yes ✓** **No**

Remarks: surveyed in a stream bed, so bare ground stratum was about 60%

SOIL

Sampling Point: DS-6

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-2	**n/a**	**100**					**Rock**	
2-6	**10 YR 2/1**	**100**					**Silt**	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? **Yes** ✓ **No**

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Plowed Soils (C6)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ✓ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Thin Muck Surface (C7)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	No ✓	Depth (inches):
Water Table Present?	Yes	No ✓	Depth (inches):
Saturation Present? (includes capillary fringe)	Yes	No ✓	Depth (inches):

Wetland Hydrology Present? **Yes** ✓ **No**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Surface water has been incidentally observed from approximately Nov-Apr during focused species surveys and therefore, although not present during the delineation, primary indicator “Surface Water” is considered present.

This sample point was taken in the bottom of the channel.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Warner Ranch | City/County: Pala, San Diego | Sampling Date: 5 Aug 10

Applicant/Owner: Warner Ranch? | State: CA | Sampling Point: DS-7

Investigator(s): Callie Ford, Vipul Joshi | Section, Township, Range: Section 28, Township 9S, Range 2W

Landform (hillslope, terrace, etc.): terrace | Local relief (concave, convex, none): none | Slope (%): 0-5%

Subregion (LRR): LRR C | Lat: 33°22'14.588"N Long: 117°5'51.828"W | Datum: NAD83

Soil Map Unit Name: Las Posas stony fine sandy loam | NWI classification: Upland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? **No** Are "Normal Circumstances" present? Yes ✓ No

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? **No** (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	No ✓
Hydric Soil Present?	Yes	No ✓
Wetland Hydrology Present?	Yes	No ✓

Is the Sampled Area within a Wetland? **YES** **NO ✓**

Remarks: Sample point is not considered a waters of the U.S. based on lack of hydrology and hydric soils; it is considered a CDFG Wetland.

VEGETATION

Tree Stratum (Plot size: 20' x 20'.)		Absolute % Cover	Dominant Species?	Indicator Status
1. Quercus agrifolia		50	Y	NI
2.				
3.				
4.				
	Total Cover:			

Sapling/Shrub Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
5.				
	Total Cover:			

Herb Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1. Bromus diandrus		70	Y	NI
2.				
3.				
4.				
5.				
6.				
7.				
8.				
	Total Cover:			

Woody Vine Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
	Total Cover:			

% Bare Ground in Herb Stratum: 0 % Cover of Biotic Crust:

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)

Total Number of Dominant Species Across All Strata: _____ (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? **Yes** **No ✓**

Remarks: lots of leaves covering the ground, so no bare ground

SOIL

Sampling Point: DS-7

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-6	**7.5 YR 3/2**	**100**					**Sandy silt**	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? **Yes** **No** ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Plowed Soils (C6)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Thin Muck Surface (C7)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	No ✓	Depth (inches):
Water Table Present?	Yes	No ✓	Depth (inches):
Saturation Present? (includes capillary fringe)	Yes	No ✓	Depth (inches):

Wetland Hydrology Present? **Yes** **No** ✓

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: This sample point was taken past the top of bank of the stream channel. The bank is approximately 3-5' above the channel.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Warner Ranch | City/County: Pala, San Diego | Sampling Date: 5 Aug 10

Applicant/Owner: Warner Ranch? | State: CA | Sampling Point: DS-8

Investigator(s): Callie Ford, Vipul Joshi | Section, Township, Range: Section 28, Township 9S, Range 2W

Landform (hillslope, terrace, etc.): terrace | Local relief (concave, convex, none): None | Slope (%): 0%

Subregion (LRR): LRR C | Lat: 33°22'13.755"N Long: 117°5'51.458"W | Datum: NAD83

Soil Map Unit Name: Las Posas stony fine sandy loam | NWI classification: upland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? **No** Are "Normal Circumstances" present? Yes ✓ No

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? **No** (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ✓	No	
Hydric Soil Present?	Yes	No ✓	**Is the Sampled Area within a Wetland?** **YES** **NO ✓**
Wetland Hydrology Present?	Yes	No ✓	

Remarks: Sample point is not considered a waters of the U.S. based on lack of hydrology and hydric soils; it is considered a CDFG Wetland.

VEGETATION

Tree Stratum (Plot size 20' x 20')	Absolute % Cover	Dominant Species?	Indicator Status
1. Platanus racemosa	30	Y	NI
2. Schinus molle	10	N	NI
3.			
4.			
Total Cover:			

Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
Total Cover:			

Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status
1. Bromus diandrus	60	Y	NI
2. Cirsium vulgare	5	N	FAC
3.			
4.			
5.			
6.			
7.			
8.			
Total Cover:			

Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
Total Cover:			

% Bare Ground in Herb Stratum: % Cover of Biotic Crust:

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species	**5**	x 3 =	15
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	5 (A)		15 (B)

Prevalence Index = B/A = 3.0

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

✓ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? **Yes ✓** **No**

Remarks:

SOIL

Sampling Point: **DS-8**

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-6	**7.5 YR 3/2**	**100**					**Silt-sand**	**Uniform throughout**

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? **Yes** **No** ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Plowed Soils (C6)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Thin Muck Surface (C7)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	No ✓	Depth (inches):
Water Table Present?	Yes	No ✓	Depth (inches):
Saturation Present? (includes capillary fringe)	Yes	No ✓	Depth (inches):

Wetland Hydrology Present? **Yes** **No** ✓

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: This sample point was taken past the top of bank of the stream channel. The bank is approximately 3-5' above the channel.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Warner Ranch | City/County: Pala, San Diego | Sampling Date: 5 Aug 10

Applicant/Owner: Warner Ranch? | State: CA | Sampling Point: DS -9

Investigator(s): Callie Ford, Vipul Joshi | Section, Township, Range: S22 T9S R2W

Landform (hillslope, terrace, etc.): streambed | Local relief (concave, convex, none): None | Slope (%): 0

Subregion (LRR): LRR C | Lat: 33°22'35.359"N Long: 117°4'55.65"W | Datum: NAD83

Soil Map Unit Name: Visalia sandy loam | NWI classification: Riverine unvegetated streambed

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? **No** Are "Normal Circumstances" present? Yes ✓ No

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? **No** (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	No ✓	
Hydric Soil Present?	Yes	No ✓	**Is the Sampled Area within a Wetland?** **YES** **NO ✓**
Wetland Hydrology Present?	Yes✓	No	

Remarks: Sample point has potential to be considered a ACOE/RWQCB/CDFG/County Non-wetland Waters.

VEGETATION

Tree Stratum (Plot size: 10' x 20')	Absolute % Cover	Dominant Species?	Indicator Status
1. Eucalyptus sp	5	N	NI
2.			
3.			
4.			
Total Cover:			

Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status
1. Baccharis salicifolia	1	N	FACW
2.			
3.			
4.			
5.			
Total Cover:			

Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status
1. Bromus diandrus	1	N	NI
2. Centaurea melitensis	1	N	NI
3. Avena barbata	1	N	NI
4. Hirschfeldia incana	1	N	NI
5.			
6.			
7.			
8.			
Total Cover:			

Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
Total Cover:			

% Bare Ground in Herb Stratum: 90 % Cover of Biotic Crust:

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species **1**	x 2 = 2
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: 1 (A)	2 (B)

Prevalence Index = B/A = 2

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? **Yes** **No** ✓

Remarks:

Open channel bottom

SOIL

Sampling Point: DS- 9

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-6	**10 YR 4/4**	**33**					**Sand**	**Sandy-rock particles**
0-6	**10 YR 6/2**	**33**					**Sand**	**Sandy-rock particles**
0-6	**7.5 YR 4/4**	**33**					**Sand**	**Sandy-rock particles**

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5) (**LRR C**)
___ 1 cm Muck (A9) (**LRR D**)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)
___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

___ 1 cm Muck (A9) (**LRR C**)
___ 2 cm Muck (A10) (**LRR B**)
___ Reduced Vertic (F18)
___ Red Parent Material (TF2)
___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? **Yes** **No** ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

___ Surface Water (A1)
___ High Water Table (A2)
___ Saturation (A3)
___ Water Marks (B1) (**Nonriverine**)
___ Sediment Deposits (B2) (**Nonriverine**)
___ Drift Deposits (B3) (**Nonriverine**)
___ Surface Soil Cracks (B6)
___ Inundation Visible on Aerial Imagery (B7)
___ Water-Stained Leaves (B9)
___ Salt Crust (B11)
___ Biotic Crust (B12)
___ Aquatic Invertebrates (B13)
___ Hydrogen Sulfide Odor (C1)
___ Oxidized Rhizospheres along Living Roots (C3)
___ Presence of Reduced Iron (C4)
___ Recent Iron Reduction in Plowed Soils (C6)
___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

___ Water Marks (B1) (**Riverine**)
✓ Sediment Deposits (B2) (**Riverine**)
___ Drift Deposits (B3) (**Riverine**)
✓ Drainage Patterns (B10)
___ Dry-Season Water Table (C2)
___ Thin Muck Surface (C7)
___ Crayfish Burrows (C8)
___ Saturation Visible on Aerial Imagery (C9)
___ Shallow Aquitard (D3)
___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No ✓ Depth (inches):

Water Table Present? Yes No ✓ Depth (inches):

Saturation Present? (includes capillary fringe) Yes No ✓ Depth (inches):

Wetland Hydrology Present? **Yes** ✓ **No**

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: This sample point was taken at the bottom of the channel.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Warner Ranch | City/County: Pala, San Diego | Sampling Date: 5 Aug 10

Applicant/Owner: Warner Ranch? | State: CA | Sampling Point: DS-10

Investigator(s): Callie Ford, Vipul Joshi | Section, Township, Range: S22 T9S R2W

Landform (hillslope, terrace, etc.): terrace | Local relief (concave, convex, none): none | Slope (%): 0

Subregion (LRR): LRR C | Lat: 33°22'35.119"N Long: 117°4'55.776"W | Datum: NAD83

Soil Map Unit Name: Visalia sandy loam | NWI classification: upland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? **No** Are "Normal Circumstances" present? Yes ✓ No

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? **No** (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	No ✓	
Hydric Soil Present?	Yes	No ✓	**Is the Sampled Area within a Wetland?** **YES** **NO ✓**
Wetland Hydrology Present?	Yes	No ✓	

Remarks: Sample point is not considered a waters of the U.S. based on lack of hydrology and hydric soils; it is considered a CDFG Wetland.

VEGETATION

Tree Stratum (Plot size: 10' x 10')	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:			
Sapling/Shrub Stratum			
1. Baccharis salisifolia	5	N	FACW
2.			
3.			
4.			
5.			
Total Cover:			
Herb Stratum			
1. Avena barbata	40	Y	NI
2. Ambrosia psilostachya	10	N	FACU*
3. Artemisia californica	5	N	NI
4. Centaurea melitensis	15	Y	NI
5.			
6.			
7.			
8.			
Total Cover:			
Woody Vine Stratum			
1.			
2.			
Total Cover:			

% Bare Ground in Herb Stratum: % Cover of Biotic Crust:

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species	**5**	x 2 =	10
FAC species		x 3 =	
FACU species	**10**	x 4 =	40
UPL species		x 5 =	
Column Totals:	15 (A)		50 (B)

Prevalence Index = B/A = 3.33

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? **Yes** **No ___✓**

Remarks:

SOIL

Sampling Point: DS-10

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-6	**10 YR 2/2**	**100**					**Silt**	**Uniform**

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? **Yes** **No** ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Plowed Soils (C6)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Thin Muck Surface (C7)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	No ✓	Depth (inches):
Water Table Present?	Yes	No ✓	Depth (inches):
Saturation Present? (includes capillary fringe)	Yes	No ✓	Depth (inches):

Wetland Hydrology Present? **Yes** **No** ✓

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: This point was taken at the top of bank approximately 5 feet above the stream channel.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Warner Ranch | City/County: Pala, San Diego | Sampling Date: 5 Aug 10

Applicant/Owner: Warner Ranch? | State: CA | Sampling Point: DS-11

Investigator(s): Callie Ford, Vipul Joshi | Section, Township, Range: S22 T9S R2W

Landform (hillslope, terrace, etc.): terrace | Local relief (concave, convex, none): None | Slope (%): 0%

Subregion (LRR): LRR C | Lat: 33°22'35.633"N Long: 117°4'55.296"W | Datum: NAD83

Soil Map Unit Name: Visalia sandy loam | NWI classification: upland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ✓ No (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? **No** Are "Normal Circumstances" present? Yes ✓ No

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? **No** (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes	No ✓	
Hydric Soil Present?	Yes	No ✓	**Is the Sampled Area within a Wetland?** **YES** **NO ✓**
Wetland Hydrology Present?	Yes	No ✓	

Remarks: Sample point is not considered a waters of the U.S. based on lack of hydrology and hydric soils; it is considered a CDFG Wetland.

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1. Eucalyptus sp	30	Y	NI
2.			
3.			
4.			
Total Cover:			

Sapling/Shrub Stratum	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
Total Cover:			

Herb Stratum	Absolute % Cover	Dominant Species?	Indicator Status
1. Bromus diandrus	80	Y	NI
2.			
3.			
4.			
5.			
6.			
7.			
8.			
Total Cover:			

Woody Vine Stratum	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
Total Cover:			

% Bare Ground in Herb Stratum: 0 % Cover of Biotic Crust:

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A = 0

Hydrophytic Vegetation Indicators:

___ Dominance Test is >50%

___ Prevalence Index is ≤3.0[1]

___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present.

Hydrophytic Vegetation Present? **Yes** **No _✓**

Remarks: lots of dead biomass littering ground in an upland area

SOIL

Sampling Point: DS -11

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-6	**10 YR 2/2**	**100**					**SILT**	**Upland data station**

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type:

Depth (inches):

Hydric Soil Present? **Yes** **No** ✓

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Plowed Soils (C6)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- ___ Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Thin Muck Surface (C7)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes	No ✓	Depth (inches):
Water Table Present?	Yes	No ✓	Depth (inches):
Saturation Present? (includes capillary fringe)	Yes	No ✓	Depth (inches):

Wetland Hydrology Present? **Yes** **No** ✓

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: This sample point was taken past the top of slope, approximately 5 feet above the stream channel.

APPROVED JURISDICTIONAL DETERMINATION FORM
U.S. Army Corps of Engineers

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD):

B. DISTRICT OFFICE, FILE NAME, AND NUMBER:

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State:California County/parish/borough: San Diego City: Pala
Center coordinates of site (lat/long in degree decimal format): Lat. 33.22.22° **N**, Long. 117.5.87° **W**.
Universal Transverse Mercator:
Name of nearest waterbody: San Luis Rey River

Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: San Luis Rey River
Name of watershed or Hydrologic Unit Code (HUC): San Luis Rey River Watershed

☒ Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.
☐ Check if other sites (e.g., offsite mitigation sites, disposal sites, etc…) are associated with this action and are recorded on a different JD form.

D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

☐ Office (Desk) Determination. Date:
☒ Field Determination. Date(s): August 5, 2010

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There **Are no** *"navigable waters of the U.S."* within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [*Required*]

☐ Waters subject to the ebb and flow of the tide.
☐ Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.
Explain: .

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There **Are** *"waters of the U.S."* within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [*Required*]

1. **Waters of the U.S.**
   a. **Indicate presence of waters of U.S. in review area (check all that apply):** [1]
      ☐ TNWs, including territorial seas
      ☐ Wetlands adjacent to TNWs
      ☒ Relatively permanent waters[2] (RPWs) that flow directly or indirectly into TNWs
      ☐ Non-RPWs that flow directly or indirectly into TNWs
      ☒ Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
      ☐ Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs
      ☐ Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
      ☐ Impoundments of jurisdictional waters
      ☐ Isolated (interstate or intrastate) waters, including isolated wetlands

   b. **Identify (estimate) size of waters of the U.S. in the review area:**
      Non-wetland waters: linear feet: width (ft) and/or acres.
      Wetlands: 8.97 acres.

   c. **Limits (boundaries) of jurisdiction** based on: **Established by OHWM.**
      Elevation of established OHWM (if known):varies, but site elevation is around 360 feet AMSL.

2. **Non-regulated waters/wetlands (check if applicable):**[3]
   ☐ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional.
   Explain: .

[1] Boxes checked below shall be supported by completing the appropriate sections in Section III below.
[2] For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).
[3] Supporting documentation is presented in Section III.F.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

The agencies will assert jurisdiction over TNWs and wetlands adjacent to TNWs. If the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1. only; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1.; otherwise, see Section III.B below.

1. TNW
Identify TNW: .

Summarize rationale supporting determination: .

2. Wetland adjacent to TNW
Summarize rationale supporting conclusion that wetland is "adjacent": .

B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps determine whether or not the standards for jurisdiction established under *Rapanos* have been met.

The agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are "relatively permanent waters" (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting a tributary with perennial flow, skip to Section III.D.4.

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of law.

If the waterbody[4] is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

1. Characteristics of non-TNWs that flow directly or indirectly into TNW

(i) General Area Conditions:
Watershed size: 562 **square miles**
Drainage area: **Pick List**
Average annual rainfall: 18.4 inches
Average annual snowfall: 0 inches

(ii) Physical Characteristics:
(a) Relationship with TNW:
☐ Tributary flows directly into TNW.
☒ Tributary flows through **2** tributaries before entering TNW.

Project waters are **20-25** river miles from TNW.
Project waters are **1 (or less)** river miles from RPW.
Project waters are **20-25** aerial (straight) miles from TNW.
Project waters are **1 (or less)** aerial (straight) miles from RPW.
Project waters cross or serve as state boundaries. Explain: .

Identify flow route to TNW[5]: Tributary flows into the San Luis Rey River located less than 1 mile south of the project; the San Luis Rey River then flows to the Pacific Ocean (TNW) approximately 20.5 miles west.

[4] Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.
[5] Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.

Tributary stream order, if known: .

(b) General Tributary Characteristics (check all that apply):

Tributary is: ☒ Natural
☐ Artificial (man-made). Explain: .
☐ Manipulated (man-altered). Explain: .

Tributary properties with respect to top of bank (estimate):
Average width: 10 feet
Average depth: 1 feet
Average side slopes: **Vertical (1:1 or less).**

Primary tributary substrate composition (check all that apply):

☒ Silts	☐ Sands	☐ Concrete
☒ Cobbles	☐ Gravel	☐ Muck
☐ Bedrock	☐ Vegetation. Type/% cover:	
☐ Other. Explain: .		

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: wide, vegetated channel and banks.
Presence of run/riffle/pool complexes. Explain: No.
Tributary geometry: **Relatively straight**
Tributary gradient (approximate average slope): 2 %

(c) Flow:
Tributary provides for: **Seasonal flow**
Estimate average number of flow events in review area/year: **2-5**
Describe flow regime: Flow during and for a brief period after rain events typical of ephemeral channels in the region.
Other information on duration and volume: .

Surface flow is: **Discrete and confined**. Characteristics: .

Subsurface flow: **No**. Explain findings: No evidence of subsurface flow (emergent wetland vegetation, etc.).
☐ Dye (or other) test performed: No.

Tributary has (check all that apply):
☒ Bed and banks
☒ OHWM[6] (check all indicators that apply):

☐ clear, natural line impressed on the bank	☒ the presence of litter and debris
☒ changes in the character of soil	☐ destruction of terrestrial vegetation
☒ shelving	☐ the presence of wrack line
☐ vegetation matted down, bent, or absent	☒ sediment sorting
☐ leaf litter disturbed or washed away	☒ scour
☐ sediment deposition	☐ multiple observed or predicted flow events
☐ water staining	☒ abrupt change in plant community
☐ other (list):	

☐ Discontinuous OHWM.[7] Explain: .

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):

☐ High Tide Line indicated by:	☐ Mean High Water Mark indicated by:
☐ oil or scum line along shore objects	☐ survey to available datum;
☐ fine shell or debris deposits (foreshore)	☐ physical markings;
☐ physical markings/characteristics	☐ vegetation lines/changes in vegetation types.
☐ tidal gauges	
☐ other (list):	

(iii) Chemical Characteristics:
Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).
Explain: No water present during delineation.
Identify specific pollutants, if known: None known.

[6]A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.
[7]Ibid.

(iv) Biological Characteristics. Channel supports (check all that apply):

- ☒ Riparian corridor. Characteristics (type, average width): .
- ☐ Wetland fringe. Characteristics: .
- ☒ Habitat for:
  - ☐ Federally Listed species. Explain findings: .
  - ☒ Fish/spawn areas. Explain findings: Potential to support fish species during intermittent flows.
  - ☒ Other environmentally-sensitive species. Explain findings: yellow-breasted chat.
  - ☒ Aquatic/wildlife diversity. Explain findings: Area has potential to support variety of species.

2. Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW

(i) Physical Characteristics:

(a) General Wetland Characteristics:

Properties:

Wetland size: 8.97 acres

Wetland type. Explain: Mulefat scrub and southern cottonwood willow riparian forest.

Wetland quality. Explain: Hydrophitic vegetation and hydric soils present.

Project wetlands cross or serve as state boundaries. Explain: .

(b) General Flow Relationship with Non-TNW:

Flow is: **Intermittent flow**. Explain: .

Surface flow is**: Discrete and confined**

Characteristics: .

Subsurface flow: **Unknown**. Explain findings: .

- ☐ Dye (or other) test performed: .

(c) Wetland Adjacency Determination with Non-TNW:

- ☒ Directly abutting
- ☐ Not directly abutting
  - ☐ Discrete wetland hydrologic connection. Explain: .
  - ☐ Ecological connection. Explain: .
  - ☐ Separated by berm/barrier. Explain: .

(d) Proximity (Relationship) to TNW

Project wetlands are **20-25** river miles from TNW.

Project waters are **20-25** aerial (straight) miles from TNW.

Flow is from: **Wetland to navigable waters.**

Estimate approximate location of wetland as within the **Pick List** floodplain.

(ii) Chemical Characteristics:

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: No water present. Rocky and silty soil with vegetation in channel.

Identify specific pollutants, if known: .

(iii) Biological Characteristics. Wetland supports (check all that apply):

- ☒ Riparian buffer. Characteristics (type, average width):10 feet wide with mature shrubs and trees.
- ☐ Vegetation type/percent cover. Explain: .
- ☒ Habitat for:
  - ☐ Federally Listed species. Explain findings: .
  - ☒ Fish/spawn areas. Explain findings: see 1 (iv) above.
  - ☒ Other environmentally-sensitive species. Explain findings: see 1 (iv) above.
  - ☒ Aquatic/wildlife diversity. Explain findings: ee 1 (iv) above.

3. Characteristics of all wetlands adjacent to the tributary (if any)

All wetland(s) being considered in the cumulative analysis: **2**

Approximately (8.97) acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

Directly abuts? (Y/N)	Size (in acres)	Directly abuts? (Y/N)	Size (in acres)
Y	8.43		
Y	0.54		

Summarize overall biological, chemical and physical functions being performed: The wetland is located within the creek corridor and consists of riparian vegetation (e.g., mulefat), rocky and silty creek bottom, and probably has seasonal flow of water and receives water from upstream tributaries. Functions include water filtration and flow to San Luis Rey River (TNW).

C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Draw connections between the features documented and the effects on the TNW, as identified in the *Rapanos* Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:

1. **Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D: .

2. **Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: .

3. **Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: .

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY):

1. **TNWs and Adjacent Wetlands.** Check all that apply and provide size estimates in review area:
   - ☐ TNWs: linear feet width (ft), Or, acres.
   - ☐ Wetlands adjacent to TNWs: acres.

2. **RPWs that flow directly or indirectly into TNWs.**
   - ☐ Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial: .
   - ☒ Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally: Hydric soils present.

Provide estimates for jurisdictional waters in the review area (check all that apply):
☒ Tributary waters: **6, 000** linear feet **10-100** width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .

3. Non-RPWs[8] that flow directly or indirectly into TNWs.
☐ Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional waters within the review area (check all that apply):
☐ Tributary waters: linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .

4. Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.
☐ Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.
☐ Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .

☒ Wetlands directly abutting an RPW where tributaries typically flow "seasonally." Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: Hydric soils and hydrophitic vegetation present.

Provide acreage estimates for jurisdictional wetlands in the review area: **8.97** acres.

5. Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs.
☐ Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisidictional. Data supporting this conclusion is provided at Section III.C.

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

6. Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs.
☐ Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional wetlands in the review area: acres.

7. Impoundments of jurisdictional waters.[9]
As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional.
☐ Demonstrate that impoundment was created from "waters of the U.S.," or
☐ Demonstrate that water meets the criteria for one of the categories presented above (1-6), or
☐ Demonstrate that water is isolated with a nexus to commerce (see E below).

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):[10]
☐ which are or could be used by interstate or foreign travelers for recreational or other purposes.
☐ from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
☐ which are or could be used for industrial purposes by industries in interstate commerce.
☐ Interstate isolated waters. Explain: .
☐ Other factors. Explain: .

[8] See Footnote # 3.
[9] To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.
[10] Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA *Memorandum Regarding CWA Act Jurisdiction Following Rapanos.*

Identify water body and summarize rationale supporting determination: .

Provide estimates for jurisdictional waters in the review area (check all that apply):
☐ Tributary waters: linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .
☐ Wetlands: acres.

F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY):
☐ If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.
☐ Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce.
☐ Prior to the Jan 2001 Supreme Court decision in "*SWANCC*," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR).
☐ Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain: .
☐ Other: (explain, if not covered above): .

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply):
☐ Non-wetland waters (i.e., rivers, streams): linear feet width (ft).
☐ Lakes/ponds: acres.
☐ Other non-wetland waters: acres. List type of aquatic resource: .
☐ Wetlands: acres.

Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (check all that apply):
☐ Non-wetland waters (i.e., rivers, streams): linear feet, width (ft).
☐ Lakes/ponds: acres.
☐ Other non-wetland waters: acres. List type of aquatic resource: .
☐ Wetlands: acres.

SECTION IV: DATA SOURCES.

A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):
☒ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: .
☒ Data sheets prepared/submitted by or on behalf of the applicant/consultant.
☐ Office concurs with data sheets/delineation report.
☐ Office does not concur with data sheets/delineation report.
☐ Data sheets prepared by the Corps: .
☐ Corps navigable waters' study: .
☒ U.S. Geological Survey Hydrologic Atlas: .
☒ USGS NHD data.
☐ USGS 8 and 12 digit HUC maps.
☒ U.S. Geological Survey map(s). Cite scale & quad name: .
☒ USDA Natural Resources Conservation Service Soil Survey. Citation: USDA. 2010. NRCS. Websoil Survey. .
☐ National wetlands inventory map(s). Cite name: .
☐ State/Local wetland inventory map(s): .
☐ FEMA/FIRM maps: .
☐ 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)
☐ Photographs: ☐ Aerial (Name & Date): .
or ☐ Other (Name & Date): .
☐ Previous determination(s). File no. and date of response letter: .
☐ Applicable/supporting case law: .
☐ Applicable/supporting scientific literature: .
☐ Other information (please specify): .

B. ADDITIONAL COMMENTS TO SUPPORT JD: .

APPROVED JURISDICTIONAL DETERMINATION FORM
U.S. Army Corps of Engineers

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD):

B. DISTRICT OFFICE, FILE NAME, AND NUMBER:

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State:California County/parish/borough: San Diego City: Pala
Center coordinates of site (lat/long in degree decimal format): Lat. 33.22.52° **N**, Long. 117.5.89° **W**.
Universal Transverse Mercator:
Name of nearest waterbody: San Luis Rey River

Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: San Luis Rey River
Name of watershed or Hydrologic Unit Code (HUC): San Luis Rey River Watershed

☒ Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.
☐ Check if other sites (e.g., offsite mitigation sites, disposal sites, etc…) are associated with this action and are recorded on a different JD form.

D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

☐ Office (Desk) Determination. Date:
☒ Field Determination. Date(s): August 5, 2010

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There **Are no** *"navigable waters of the U.S."* within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [*Required*]

☐ Waters subject to the ebb and flow of the tide.
☐ Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.
Explain: .

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There **Are** *"waters of the U.S."* within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [*Required*]

1. **Waters of the U.S.**
   a. **Indicate presence of waters of U.S. in review area (check all that apply):** [1]
      ☐ TNWs, including territorial seas
      ☐ Wetlands adjacent to TNWs
      ☐ Relatively permanent waters[2] (RPWs) that flow directly or indirectly into TNWs
      ☒ Non-RPWs that flow directly or indirectly into TNWs
      ☐ Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
      ☐ Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs
      ☐ Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
      ☐ Impoundments of jurisdictional waters
      ☐ Isolated (interstate or intrastate) waters, including isolated wetlands

   b. **Identify (estimate) size of waters of the U.S. in the review area:**
      Non-wetland waters: 13,538 linear feet: width (ft) and/or 0.86 acres.
      Wetlands: 0 acres.

   c. **Limits (boundaries) of jurisdiction** based on: **Established by OHWM.**
      Elevation of established OHWM (if known):varies, but site elevation ranges from 400 to 650 feet AMSL.

2. **Non-regulated waters/wetlands (check if applicable):**[3]
   ☐ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional.
   Explain: .

[1] Boxes checked below shall be supported by completing the appropriate sections in Section III below.
[2] For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).
[3] Supporting documentation is presented in Section III.F.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

The agencies will assert jurisdiction over TNWs and wetlands adjacent to TNWs. If the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1. only; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1.; otherwise, see Section III.B below.

1. TNW
Identify TNW: .

Summarize rationale supporting determination: .

2. Wetland adjacent to TNW
Summarize rationale supporting conclusion that wetland is "adjacent": .

B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps determine whether or not the standards for jurisdiction established under *Rapanos* have been met.

The agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are "relatively permanent waters" (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting a tributary with perennial flow, skip to Section III.D.4.

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of law.

If the waterbody[4] is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

1. Characteristics of non-TNWs that flow directly or indirectly into TNW

(i) General Area Conditions:
Watershed size: 562 **square miles**
Drainage area: **acres**
Average annual rainfall: 18.4 inches
Average annual snowfall: 0 inches

(ii) Physical Characteristics:
(a) Relationship with TNW:
☐ Tributary flows directly into TNW.
☒ Tributary flows through **2** tributaries before entering TNW.

Project waters are **20-25** river miles from TNW.
Project waters are **1 (or less)** river miles from RPW.
Project waters are **20-25** aerial (straight) miles from TNW.
Project waters are **1 (or less)** aerial (straight) miles from RPW.
Project waters cross or serve as state boundaries. Explain: .

Identify flow route to TNW[5]: Tributaries flow into Gomez Creek which flows into the San Luis Rey River located less than 1 mile south of the project which then flows into the Pacific Ocean (TNW).

[4] Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.
[5] Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.

Tributary stream order, if known: .

(b) General Tributary Characteristics (check all that apply):

Tributary is: ☒ Natural
☐ Artificial (man-made). Explain: .
☐ Manipulated (man-altered). Explain: .

Tributary properties with respect to top of bank (estimate):
Average width: 1-3 feet
Average depth: 1 feet
Average side slopes: **Vertical (1:1 or less).**

Primary tributary substrate composition (check all that apply):

☒ Silts	☒ Sands	☐ Concrete
☒ Cobbles	☐ Gravel	☐ Muck
☐ Bedrock	☐ Vegetation. Type/% cover:	
☐ Other. Explain: .		

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: wide, vegetated channel and banks.
Presence of run/riffle/pool complexes. Explain: No.
Tributary geometry: **Relatively straight**
Tributary gradient (approximate average slope): 2 %

(c) Flow:

Tributary provides for: **Seasonal flow**
Estimate average number of flow events in review area/year: **1**
Describe flow regime: Flow during rain events typical of ephemeral channels in the region.
Other information on duration and volume: .

Surface flow is: **Discrete and confined**. Characteristics: .

Subsurface flow: **No**. Explain findings: No evidence of subsurface flow (emergent wetland vegetation, etc.).
☐ Dye (or other) test performed: No.

Tributary has (check all that apply):
☒ Bed and banks
☐ OHWM[6] (check all indicators that apply):

☐ clear, natural line impressed on the bank	☐ the presence of litter and debris
☐ changes in the character of soil	☐ destruction of terrestrial vegetation
☐ shelving	☐ the presence of wrack line
☐ vegetation matted down, bent, or absent	☐ sediment sorting
☐ leaf litter disturbed or washed away	☐ scour
☐ sediment deposition	☐ multiple observed or predicted flow events
☐ water staining	☐ abrupt change in plant community
☐ other (list):	

☐ Discontinuous OHWM.[7] Explain: .

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):

☐ High Tide Line indicated by:	☐ Mean High Water Mark indicated by:
☐ oil or scum line along shore objects	☐ survey to available datum;
☐ fine shell or debris deposits (foreshore)	☐ physical markings;
☐ physical markings/characteristics	☐ vegetation lines/changes in vegetation types.
☐ tidal gauges	
☐ other (list):	

(iii) Chemical Characteristics:

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).
Explain: No water present.
Identify specific pollutants, if known: None known.

[6]A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.
[7]Ibid.

(iv) Biological Characteristics. Channel supports (check all that apply):

- ☐ Riparian corridor. Characteristics (type, average width): .
- ☐ Wetland fringe. Characteristics: .
- ☒ Habitat for:
  - ☐ Federally Listed species. Explain findings: .
  - ☐ Fish/spawn areas. Explain findings: .
  - ☒ Other environmentally-sensitive species. Explain findings: Located near habitat that could support sensitive species.
  - ☐ Aquatic/wildlife diversity. Explain findings: .

2. Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW

(i) Physical Characteristics:

(a) General Wetland Characteristics:

Properties:

Wetland size: acres

Wetland type. Explain: Mulefat scrub and southern cottonwood willow riparian forest.

Wetland quality. Explain: Hydrophitic vegetation and hydric soils present.

Project wetlands cross or serve as state boundaries. Explain: .

(b) General Flow Relationship with Non-TNW:

Flow is: **Pick List**. Explain: .

Surface flow is**: Pick List**

Characteristics: .

Subsurface flow: **Pick List**. Explain findings: .

- ☐ Dye (or other) test performed: .

(c) Wetland Adjacency Determination with Non-TNW:

- ☐ Directly abutting
- ☐ Not directly abutting
  - ☐ Discrete wetland hydrologic connection. Explain: .
  - ☐ Ecological connection. Explain: .
  - ☐ Separated by berm/barrier. Explain: .

(d) Proximity (Relationship) to TNW

Project wetlands are **Pick List** river miles from TNW.

Project waters are **Pick List** aerial (straight) miles from TNW.

Flow is from: **Pick List.**

Estimate approximate location of wetland as within the **Pick List** floodplain.

(ii) Chemical Characteristics:

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: .

Identify specific pollutants, if known: .

(iii) Biological Characteristics. Wetland supports (check all that apply):

- ☐ Riparian buffer. Characteristics (type, average width):10 feet wide with mature shrubs and trees.
- ☐ Vegetation type/percent cover. Explain: .
- ☐ Habitat for:
  - ☐ Federally Listed species. Explain findings: .
  - ☐ Fish/spawn areas. Explain findings: .
  - ☐ Other environmentally-sensitive species. Explain findings: .
  - ☐ Aquatic/wildlife diversity. Explain findings: .

3. Characteristics of all wetlands adjacent to the tributary (if any)

All wetland(s) being considered in the cumulative analysis: **Pick List**

Approximately ( ) acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

Directly abuts? (Y/N)	Size (in acres)	Directly abuts? (Y/N)	Size (in acres)

Summarize overall biological, chemical and physical functions being performed: The wetland is located within the creek corridor and consists of riparian vegetation (e.g., mulefat), rocky and silty creek bottom, and probably has seasonal flow of water and receives water from upstream tributaries. Functions include water filtration and flow to San Luis Rey River (TNW).

C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Draw connections between the features documented and the effects on the TNW, as identified in the *Rapanos* Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:

1. **Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D: .

2. **Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: .

3. **Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: .

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY):

1. **TNWs and Adjacent Wetlands.** Check all that apply and provide size estimates in review area:
   - ☐ TNWs: linear feet width (ft), Or, acres.
   - ☐ Wetlands adjacent to TNWs: acres.

2. **RPWs that flow directly or indirectly into TNWs.**
   - ☐ Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial: .
   - ☐ Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally: Hydric soils present.

Provide estimates for jurisdictional waters in the review area (check all that apply):
☐ Tributary waters: linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .

3. Non-RPWs[8] that flow directly or indirectly into TNWs.
☒ Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional waters within the review area (check all that apply):
☒ Tributary waters: **13,538** linear feet **1-3** width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: **.**

4. Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.
☐ Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.
☐ Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: **.**

☐ Wetlands directly abutting an RPW where tributaries typically flow "seasonally." Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: Hydric soils and hydrophitic vegetation present.

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

5. Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs.
☐ Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisidictional. Data supporting this conclusion is provided at Section III.C.

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

6. Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs.
☐ Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional wetlands in the review area: acres.

7. Impoundments of jurisdictional waters.[9]
As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional.
☐ Demonstrate that impoundment was created from "waters of the U.S.," or
☐ Demonstrate that water meets the criteria for one of the categories presented above (1-6), or
☐ Demonstrate that water is isolated with a nexus to commerce (see E below).

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):[10]
☐ which are or could be used by interstate or foreign travelers for recreational or other purposes.
☐ from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
☐ which are or could be used for industrial purposes by industries in interstate commerce.
☐ Interstate isolated waters. Explain: .
☐ Other factors. Explain: .

[8] See Footnote # 3.
[9] To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.
[10] Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA *Memorandum Regarding CWA Act Jurisdiction Following Rapanos.*

Identify water body and summarize rationale supporting determination: .

Provide estimates for jurisdictional waters in the review area (check all that apply):
☐ Tributary waters: linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .
☐ Wetlands: acres.

F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY):
☐ If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.
☐ Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce.
☐ Prior to the Jan 2001 Supreme Court decision in "*SWANCC*," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR).
☐ Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain: .
☐ Other: (explain, if not covered above): .

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply):
☐ Non-wetland waters (i.e., rivers, streams): linear feet width (ft).
☐ Lakes/ponds: acres.
☐ Other non-wetland waters: acres. List type of aquatic resource: .
☐ Wetlands: acres.

Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (check all that apply):
☐ Non-wetland waters (i.e., rivers, streams): linear feet, width (ft).
☐ Lakes/ponds: acres.
☐ Other non-wetland waters: acres. List type of aquatic resource: .
☐ Wetlands: acres.

SECTION IV: DATA SOURCES.

A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):
☒ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: .
☒ Data sheets prepared/submitted by or on behalf of the applicant/consultant.
☐ Office concurs with data sheets/delineation report.
☐ Office does not concur with data sheets/delineation report.
☐ Data sheets prepared by the Corps: .
☐ Corps navigable waters' study: .
☒ U.S. Geological Survey Hydrologic Atlas: .
☒ USGS NHD data.
☐ USGS 8 and 12 digit HUC maps.
☒ U.S. Geological Survey map(s). Cite scale & quad name: .
☒ USDA Natural Resources Conservation Service Soil Survey. Citation: USDA. 2010. NRCS. Websoil Survey..
☐ National wetlands inventory map(s). Cite name: .
☐ State/Local wetland inventory map(s): .
☐ FEMA/FIRM maps: .
☐ 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)
☐ Photographs: ☐ Aerial (Name & Date): .
or ☐ Other (Name & Date): .
☐ Previous determination(s). File no. and date of response letter: .
☐ Applicable/supporting case law: .
☐ Applicable/supporting scientific literature: .
☐ Other information (please specify): .

B. ADDITIONAL COMMENTS TO SUPPORT JD: Multiple tributaries that vary in length and width and flow into Gomez Creek.

APPROVED JURISDICTIONAL DETERMINATION FORM
U.S. Army Corps of Engineers

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD):

B. DISTRICT OFFICE, FILE NAME, AND NUMBER:

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State:California County/parish/borough: San Diego City: Pala
Center coordinates of site (lat/long in degree decimal format): Lat. 33.22.52° **N**, Long. 117.5.89° **W**.
Universal Transverse Mercator:
Name of nearest waterbody: San Luis Rey River

Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: San Luis Rey River
Name of watershed or Hydrologic Unit Code (HUC): San Luis Rey River Watershed

☒ Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.
☐ Check if other sites (e.g., offsite mitigation sites, disposal sites, etc…) are associated with this action and are recorded on a different JD form.

D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

☐ Office (Desk) Determination. Date:
☒ Field Determination. Date(s): August 5, 2010

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There **Are no** *"navigable waters of the U.S."* within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [*Required*]

☐ Waters subject to the ebb and flow of the tide.
☐ Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.
Explain: .

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There **Are** "*waters of the U.S.*" within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [*Required*]

1. Waters of the U.S.

a. Indicate presence of waters of U.S. in review area (check all that apply): [1]

☐ TNWs, including territorial seas
☐ Wetlands adjacent to TNWs
☐ Relatively permanent waters[2] (RPWs) that flow directly or indirectly into TNWs
☒ Non-RPWs that flow directly or indirectly into TNWs
☐ Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
☐ Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs
☐ Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
☐ Impoundments of jurisdictional waters
☐ Isolated (interstate or intrastate) waters, including isolated wetlands

b. Identify (estimate) size of waters of the U.S. in the review area:
Non-wetland waters: 400 linear feet: width (ft) and/or 0.13 acres.
Wetlands: 0 acres.

c. Limits (boundaries) of jurisdiction based on: **Established by OHWM.**
Elevation of established OHWM (if known):varies, but site elevation ranges from 400 to 650 feet AMSL.

2. Non-regulated waters/wetlands (check if applicable):[3]

☐ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional.
Explain: .

[1] Boxes checked below shall be supported by completing the appropriate sections in Section III below.
[2] For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).
[3] Supporting documentation is presented in Section III.F.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

The agencies will assert jurisdiction over TNWs and wetlands adjacent to TNWs. If the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1. only; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1.; otherwise, see Section III.B below.

1. TNW
Identify TNW: .

Summarize rationale supporting determination: .

2. Wetland adjacent to TNW
Summarize rationale supporting conclusion that wetland is "adjacent": .

B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps determine whether or not the standards for jurisdiction established under *Rapanos* have been met.

The agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are "relatively permanent waters" (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting a tributary with perennial flow, skip to Section III.D.4.

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of law.

If the waterbody[4] is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

1. Characteristics of non-TNWs that flow directly or indirectly into TNW

(i) General Area Conditions:
Watershed size: 562 **square miles**
Drainage area: **acres**
Average annual rainfall: 18.4 inches
Average annual snowfall: 0 inches

(ii) Physical Characteristics:
(a) Relationship with TNW:
☐ Tributary flows directly into TNW.
☒ Tributary flows through **2** tributaries before entering TNW.

Project waters are **20-25** river miles from TNW.
Project waters are **1 (or less)** river miles from RPW.
Project waters are **20-25** aerial (straight) miles from TNW.
Project waters are **1 (or less)** aerial (straight) miles from RPW.
Project waters cross or serve as state boundaries. Explain: .

Identify flow route to TNW[5]: Channel flows into the San Luis Rey River located less than 1 mile south of the project which then flows into the Pacific Ocean (TNW).

[4] Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.
[5] Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.

Tributary stream order, if known: .

(b) General Tributary Characteristics (check all that apply):

Tributary is: ☒ Natural
☐ Artificial (man-made). Explain: .
☐ Manipulated (man-altered). Explain: .

Tributary properties with respect to top of bank (estimate):
Average width: 1-3 feet
Average depth: 1 feet
Average side slopes: **Vertical (1:1 or less).**

Primary tributary substrate composition (check all that apply):

☒ Silts	☒ Sands	☐ Concrete
☒ Cobbles	☐ Gravel	☐ Muck
☐ Bedrock	☐ Vegetation. Type/% cover:	
☐ Other. Explain: .		

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: wide, vegetated channel and banks.
Presence of run/riffle/pool complexes. Explain: No.
Tributary geometry: **Relatively straight**
Tributary gradient (approximate average slope): 2 %

(c) Flow:

Tributary provides for: **Seasonal flow**
Estimate average number of flow events in review area/year: **1**
Describe flow regime: Flow during rain events typical of ephemeral channels in the region.
Other information on duration and volume: .

Surface flow is: **Discrete and confined**. Characteristics: .

Subsurface flow: **No**. Explain findings: No evidence of subsurface flow (emergent wetland vegetation, etc.).
☐ Dye (or other) test performed: No.

Tributary has (check all that apply):
☒ Bed and banks
☐ OHWM[6] (check all indicators that apply):

☐ clear, natural line impressed on the bank	☐ the presence of litter and debris
☐ changes in the character of soil	☐ destruction of terrestrial vegetation
☐ shelving	☐ the presence of wrack line
☐ vegetation matted down, bent, or absent	☐ sediment sorting
☐ leaf litter disturbed or washed away	☐ scour
☐ sediment deposition	☐ multiple observed or predicted flow events
☐ water staining	☐ abrupt change in plant community
☐ other (list):	

☐ Discontinuous OHWM.[7] Explain: .

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):

☐ High Tide Line indicated by:	☐ Mean High Water Mark indicated by:
☐ oil or scum line along shore objects	☐ survey to available datum;
☐ fine shell or debris deposits (foreshore)	☐ physical markings;
☐ physical markings/characteristics	☐ vegetation lines/changes in vegetation types.
☐ tidal gauges	
☐ other (list):	

(iii) Chemical Characteristics:

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).
Explain: No water present.
Identify specific pollutants, if known: None known.

[6]A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.
[7]Ibid.

(iv) Biological Characteristics. Channel supports (check all that apply):

- ☐ Riparian corridor. Characteristics (type, average width): .
- ☐ Wetland fringe. Characteristics: .
- ☒ Habitat for:
  - ☐ Federally Listed species. Explain findings: .
  - ☐ Fish/spawn areas. Explain findings: .
  - ☒ Other environmentally-sensitive species. Explain findings: Located near habitat that could support sensitive species.
  - ☐ Aquatic/wildlife diversity. Explain findings: .

2. Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW

(i) Physical Characteristics:

(a) General Wetland Characteristics:

Properties:

Wetland size: acres

Wetland type. Explain: Mulefat scrub and southern cottonwood willow riparian forest.

Wetland quality. Explain: Hydrophitic vegetation and hydric soils present.

Project wetlands cross or serve as state boundaries. Explain: .

(b) General Flow Relationship with Non-TNW:

Flow is: **Pick List**. Explain: .

Surface flow is**: Pick List**

Characteristics: .

Subsurface flow: **Pick List**. Explain findings: .

- ☐ Dye (or other) test performed: .

(c) Wetland Adjacency Determination with Non-TNW:

- ☐ Directly abutting
- ☐ Not directly abutting
  - ☐ Discrete wetland hydrologic connection. Explain: .
  - ☐ Ecological connection. Explain: .
  - ☐ Separated by berm/barrier. Explain: .

(d) Proximity (Relationship) to TNW

Project wetlands are **Pick List** river miles from TNW.

Project waters are **Pick List** aerial (straight) miles from TNW.

Flow is from: **Pick List.**

Estimate approximate location of wetland as within the **Pick List** floodplain.

(ii) Chemical Characteristics:

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: .

Identify specific pollutants, if known: .

(iii) Biological Characteristics. Wetland supports (check all that apply):

- ☐ Riparian buffer. Characteristics (type, average width):10 feet wide with mature shrubs and trees.
- ☐ Vegetation type/percent cover. Explain: .
- ☐ Habitat for:
  - ☐ Federally Listed species. Explain findings: .
  - ☐ Fish/spawn areas. Explain findings: .
  - ☐ Other environmentally-sensitive species. Explain findings: .
  - ☐ Aquatic/wildlife diversity. Explain findings: .

3. Characteristics of all wetlands adjacent to the tributary (if any)

All wetland(s) being considered in the cumulative analysis: **Pick List**

Approximately ( ) acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

Directly abuts? (Y/N)	Size (in acres)	Directly abuts? (Y/N)	Size (in acres)

Summarize overall biological, chemical and physical functions being performed: The wetland is located within the creek corridor and consists of riparian vegetation (e.g., mulefat), rocky and silty creek bottom, and probably has seasonal flow of water and receives water from upstream tributaries. Functions include water filtration and flow to San Luis Rey River (TNW).

C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Draw connections between the features documented and the effects on the TNW, as identified in the *Rapanos* Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:

1. **Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D: .

2. **Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: .

3. **Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: .

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY):

1. **TNWs and Adjacent Wetlands.** Check all that apply and provide size estimates in review area:
   - ☐ TNWs: linear feet width (ft), Or, acres.
   - ☐ Wetlands adjacent to TNWs: acres.

2. **RPWs that flow directly or indirectly into TNWs.**
   - ☐ Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial: .
   - ☐ Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally: Hydric soils present.

Provide estimates for jurisdictional waters in the review area (check all that apply):
☐ Tributary waters: linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .

3. Non-RPWs[8] that flow directly or indirectly into TNWs.

☒ Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional waters within the review area (check all that apply):
☒ Tributary waters: **400** linear feet **3-20** width (ft).
☒ Other non-wetland waters: **0.13** acres.
Identify type(s) of waters: **Open channel.**

4. Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.

☐ Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.
☐ Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: **.**

☐ Wetlands directly abutting an RPW where tributaries typically flow "seasonally." Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: Hydric soils and hydrophitic vegetation present.

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

5. Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs.

☐ Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisidictional. Data supporting this conclusion is provided at Section III.C.

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

6. Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs.

☐ Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional wetlands in the review area: acres.

7. Impoundments of jurisdictional waters.[9]

As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional.
☐ Demonstrate that impoundment was created from "waters of the U.S.," or
☐ Demonstrate that water meets the criteria for one of the categories presented above (1-6), or
☐ Demonstrate that water is isolated with a nexus to commerce (see E below).

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):[10]

☐ which are or could be used by interstate or foreign travelers for recreational or other purposes.
☐ from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
☐ which are or could be used for industrial purposes by industries in interstate commerce.
☐ Interstate isolated waters. Explain: .
☐ Other factors. Explain: .

---

[8] See Footnote # 3.
[9] To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.
[10] Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA *Memorandum Regarding CWA Act Jurisdiction Following Rapanos.*

Identify water body and summarize rationale supporting determination: .

Provide estimates for jurisdictional waters in the review area (check all that apply):
☐ Tributary waters: linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .
☐ Wetlands: acres.

F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY):
☐ If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.
☐ Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce.
☐ Prior to the Jan 2001 Supreme Court decision in "*SWANCC*," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR).
☐ Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain: .
☐ Other: (explain, if not covered above): .

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply):
☐ Non-wetland waters (i.e., rivers, streams): linear feet width (ft).
☐ Lakes/ponds: acres.
☐ Other non-wetland waters: acres. List type of aquatic resource: .
☐ Wetlands: acres.

Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (check all that apply):
☐ Non-wetland waters (i.e., rivers, streams): linear feet, width (ft).
☐ Lakes/ponds: acres.
☐ Other non-wetland waters: acres. List type of aquatic resource: .
☐ Wetlands: acres.

SECTION IV: DATA SOURCES.

A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):
☒ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: .
☒ Data sheets prepared/submitted by or on behalf of the applicant/consultant.
☐ Office concurs with data sheets/delineation report.
☐ Office does not concur with data sheets/delineation report.
☐ Data sheets prepared by the Corps: .
☐ Corps navigable waters' study: .
☒ U.S. Geological Survey Hydrologic Atlas: .
☒ USGS NHD data.
☐ USGS 8 and 12 digit HUC maps.
☒ U.S. Geological Survey map(s). Cite scale & quad name: .
☒ USDA Natural Resources Conservation Service Soil Survey. Citation: USDA. 2010. NRCS. Websoil Survey..
☐ National wetlands inventory map(s). Cite name: .
☐ State/Local wetland inventory map(s): .
☐ FEMA/FIRM maps: .
☐ 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)
☐ Photographs: ☐ Aerial (Name & Date): .
or ☐ Other (Name & Date): .
☐ Previous determination(s). File no. and date of response letter: .
☐ Applicable/supporting case law: .
☐ Applicable/supporting scientific literature: .
☐ Other information (please specify): .

B. ADDITIONAL COMMENTS TO SUPPORT JD: Open channel that flows into San Luis Rey River.

APPROVED JURISDICTIONAL DETERMINATION FORM
U.S. Army Corps of Engineers

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD):

B. DISTRICT OFFICE, FILE NAME, AND NUMBER:

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State:California County/parish/borough: San Diego City: Pala
Center coordinates of site (lat/long in degree decimal format): Lat. 33.22.28° **N**, Long. 117.5.38° **W**.
Universal Transverse Mercator:
Name of nearest waterbody: San Luis Rey River

Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: N/A
Name of watershed or Hydrologic Unit Code (HUC): San Luis Rey River Watershed

☒ Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.
☐ Check if other sites (e.g., offsite mitigation sites, disposal sites, etc…) are associated with this action and are recorded on a different JD form.

D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

☐ Office (Desk) Determination. Date:
☒ Field Determination. Date(s): August 5, 2010

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There **Are no** *"navigable waters of the U.S."* within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [*Required*]

☐ Waters subject to the ebb and flow of the tide.
☐ Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.
Explain: .

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There **Are no** "*waters of the U.S.*" within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [*Required*]

1. **Waters of the U.S.**
   a. **Indicate presence of waters of U.S. in review area (check all that apply):** [1]
      ☐ TNWs, including territorial seas
      ☐ Wetlands adjacent to TNWs
      ☐ Relatively permanent waters[2] (RPWs) that flow directly or indirectly into TNWs
      ☐ Non-RPWs that flow directly or indirectly into TNWs
      ☐ Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
      ☐ Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs
      ☐ Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
      ☐ Impoundments of jurisdictional waters
      ☐ Isolated (interstate or intrastate) waters, including isolated wetlands

   b. **Identify (estimate) size of waters of the U.S. in the review area:**
      Non-wetland waters: linear feet: width (ft) and/or acres.
      Wetlands: 0 acres.

   c. **Limits (boundaries) of jurisdiction** based on: **Pick List**
      Elevation of established OHWM (if known): .

2. **Non-regulated waters/wetlands (check if applicable):**[3]
   ☒ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional.
   Explain: **Waters are isolated and do not have a significant nexus to TNW**.

[1] Boxes checked below shall be supported by completing the appropriate sections in Section III below.
[2] For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).
[3] Supporting documentation is presented in Section III.F.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

The agencies will assert jurisdiction over TNWs and wetlands adjacent to TNWs. If the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1. only; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1.; otherwise, see Section III.B below.

1. TNW
Identify TNW: .

Summarize rationale supporting determination: .

2. Wetland adjacent to TNW
Summarize rationale supporting conclusion that wetland is "adjacent": .

B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps determine whether or not the standards for jurisdiction established under *Rapanos* have been met.

The agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are "relatively permanent waters" (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting a tributary with perennial flow, skip to Section III.D.4.

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of law.

If the waterbody[4] is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

1. Characteristics of non-TNWs that flow directly or indirectly into TNW

(i) General Area Conditions:
Watershed size: 562 **square miles**
Drainage area: **acres**
Average annual rainfall: 18.4 inches
Average annual snowfall: 0 inches

(ii) Physical Characteristics:
(a) Relationship with TNW:
☐ Tributary flows directly into TNW.
☐ Tributary flows through **Pick List** tributaries before entering TNW.

Project waters are **Pick List** river miles from TNW.
Project waters are **Pick List** river miles from RPW.
Project waters are **Pick List** aerial (straight) miles from TNW.
Project waters are **Pick List** aerial (straight) miles from RPW.
Project waters cross or serve as state boundaries. Explain: .

Identify flow route to TNW[5]: .
Tributary stream order, if known: .

[4] Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.
[5] Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.

(b) General Tributary Characteristics (check all that apply):

Tributary is: ☒ Natural
☐ Artificial (man-made). Explain: .
☐ Manipulated (man-altered). Explain: .

Tributary properties with respect to top of bank (estimate):
Average width: feet
Average depth: feet
Average side slopes: **Pick List.**

Primary tributary substrate composition (check all that apply):

☐ Silts	☐ Sands	☐ Concrete
☐ Cobbles	☐ Gravel	☐ Muck
☐ Bedrock	☐ Vegetation. Type/% cover:	
☐ Other. Explain: .		

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: wide, vegetated channel and banks.
Presence of run/riffle/pool complexes. Explain: No.
Tributary geometry: **Pick List**
Tributary gradient (approximate average slope): %

(c) Flow:
Tributary provides for: **Pick List**
Estimate average number of flow events in review area/year: **Pick List**
Describe flow regime: Flow during rain events typical of ephemeral channels in the region.
Other information on duration and volume: .

Surface flow is: **Pick List.** Characteristics: .

Subsurface flow: **Pick List**. Explain findings: No evidence of subsurface flow (emergent wetland vegetation, etc.).
☐ Dye (or other) test performed: No.

Tributary has (check all that apply):
☐ Bed and banks
☐ OHWM[6] (check all indicators that apply):

☐ clear, natural line impressed on the bank	☐ the presence of litter and debris
☐ changes in the character of soil	☐ destruction of terrestrial vegetation
☐ shelving	☐ the presence of wrack line
☐ vegetation matted down, bent, or absent	☐ sediment sorting
☐ leaf litter disturbed or washed away	☐ scour
☐ sediment deposition	☐ multiple observed or predicted flow events
☐ water staining	☐ abrupt change in plant community
☐ other (list):	

☐ Discontinuous OHWM.[7] Explain: .

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):

☐ High Tide Line indicated by:	☐ Mean High Water Mark indicated by:
☐ oil or scum line along shore objects	☐ survey to available datum;
☐ fine shell or debris deposits (foreshore)	☐ physical markings;
☐ physical markings/characteristics	☐ vegetation lines/changes in vegetation types.
☐ tidal gauges	
☐ other (list):	

(iii) Chemical Characteristics:
Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).
Explain: No water present.
Identify specific pollutants, if known: None known.

[6]A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.
[7]Ibid.

(iv) Biological Characteristics. Channel supports (check all that apply):

- ☐ Riparian corridor. Characteristics (type, average width): .
- ☐ Wetland fringe. Characteristics: .
- ☐ Habitat for:
  - ☐ Federally Listed species. Explain findings: .
  - ☐ Fish/spawn areas. Explain findings: .
  - ☐ Other environmentally-sensitive species. Explain findings: .
  - ☐ Aquatic/wildlife diversity. Explain findings: .

2. Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW

(i) Physical Characteristics:

(a) General Wetland Characteristics:

Properties:

Wetland size: acres

Wetland type. Explain: Mulefat scrub and southern cottonwood willow riparian forest.

Wetland quality. Explain: Hydrophitic vegetation and hydric soils present.

Project wetlands cross or serve as state boundaries. Explain: .

(b) General Flow Relationship with Non-TNW:

Flow is: **Pick List**. Explain: .

Surface flow is**: Pick List**

Characteristics: .

Subsurface flow: **Pick List**. Explain findings: .

- ☐ Dye (or other) test performed: .

(c) Wetland Adjacency Determination with Non-TNW:

- ☐ Directly abutting
- ☐ Not directly abutting
  - ☐ Discrete wetland hydrologic connection. Explain: .
  - ☐ Ecological connection. Explain: .
  - ☐ Separated by berm/barrier. Explain: .

(d) Proximity (Relationship) to TNW

Project wetlands are **Pick List** river miles from TNW.

Project waters are **Pick List** aerial (straight) miles from TNW.

Flow is from: **Pick List.**

Estimate approximate location of wetland as within the **Pick List** floodplain.

(ii) Chemical Characteristics:

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: .

Identify specific pollutants, if known: .

(iii) Biological Characteristics. Wetland supports (check all that apply):

- ☐ Riparian buffer. Characteristics (type, average width):10 feet wide with mature shrubs and trees.
- ☐ Vegetation type/percent cover. Explain: .
- ☐ Habitat for:
  - ☐ Federally Listed species. Explain findings: .
  - ☐ Fish/spawn areas. Explain findings: .
  - ☐ Other environmentally-sensitive species. Explain findings: .
  - ☐ Aquatic/wildlife diversity. Explain findings: .

3. Characteristics of all wetlands adjacent to the tributary (if any)

All wetland(s) being considered in the cumulative analysis: **Pick List**

Approximately ( ) acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

Directly abuts? (Y/N)	Size (in acres)	Directly abuts? (Y/N)	Size (in acres)

Summarize overall biological, chemical and physical functions being performed: The wetland is located within the creek corridor and consists of riparian vegetation (e.g., mulefat), rocky and silty creek bottom, and probably has seasonal flow of water and receives water from upstream tributaries. Functions include water filtration and flow to San Luis Rey River (TNW).

C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Draw connections between the features documented and the effects on the TNW, as identified in the *Rapanos* Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:

1. **Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D: .

2. **Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: .

3. **Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: .

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY):

1. **TNWs and Adjacent Wetlands.** Check all that apply and provide size estimates in review area:
   - ☐ TNWs: linear feet width (ft), Or, acres.
   - ☐ Wetlands adjacent to TNWs: acres.

2. **RPWs that flow directly or indirectly into TNWs.**
   - ☐ Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial: .
   - ☐ Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally: Hydric soils present.

Provide estimates for jurisdictional waters in the review area (check all that apply):
☐ Tributary waters: linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .

3. **Non-RPWs[8] that flow directly or indirectly into TNWs.**
☐ Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional waters within the review area (check all that apply):
☐ Tributary waters: linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .

4. **Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.**
☐ Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.
☐ Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .

☐ Wetlands directly abutting an RPW where tributaries typically flow "seasonally." Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: Hydric soils and hydrophitic vegetation present.

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

5. **Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs.**
☐ Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisidictional. Data supporting this conclusion is provided at Section III.C.

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

6. **Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs.**
☐ Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional wetlands in the review area: acres.

7. **Impoundments of jurisdictional waters.[9]**
As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional.
☐ Demonstrate that impoundment was created from "waters of the U.S.," or
☐ Demonstrate that water meets the criteria for one of the categories presented above (1-6), or
☐ Demonstrate that water is isolated with a nexus to commerce (see E below).

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):[10]
☐ which are or could be used by interstate or foreign travelers for recreational or other purposes.
☐ from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
☐ which are or could be used for industrial purposes by industries in interstate commerce.
☐ Interstate isolated waters. Explain: .
☐ Other factors. Explain: .

[8] See Footnote # 3.
[9] To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.
[10] Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA *Memorandum Regarding CWA Act Jurisdiction Following Rapanos.*

Identify water body and summarize rationale supporting determination: .

Provide estimates for jurisdictional waters in the review area (check all that apply):
☐ Tributary waters: linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .
☐ Wetlands: acres.

F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY):
☐ If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.
☐ Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce.
☐ Prior to the Jan 2001 Supreme Court decision in "*SWANCC*," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR).
☒ Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain: **There is insubstantial physical, chemical, or biological connectivity to waters of the U.S.**
☒ Other: (explain, if not covered above): **The streams do not have hydrologic connectivity with the San Luis Rey River (approximately 9,000 feet from the closest stream with no evidence of surface or subsurface flows in between). The subject area does not support species such as least Bell's vireo that are present in the San Luis Rey River.**

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply):
☐ Non-wetland waters (i.e., rivers, streams): linear feet width (ft).
☐ Lakes/ponds: acres.
☐ Other non-wetland waters: acres. List type of aquatic resource: .
☐ Wetlands: acres.

Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (check all that apply):
☒ Non-wetland waters (i.e., rivers, streams): **7,023** linear feet, **1-15** width (ft).
☐ Lakes/ponds: acres.
☐ Other non-wetland waters: acres. List type of aquatic resource: .
☒ Wetlands: 1.95 acres.

SECTION IV: DATA SOURCES.

A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):
☒ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: .
☒ Data sheets prepared/submitted by or on behalf of the applicant/consultant.
☐ Office concurs with data sheets/delineation report.
☐ Office does not concur with data sheets/delineation report.
☐ Data sheets prepared by the Corps: .
☐ Corps navigable waters' study: .
☒ U.S. Geological Survey Hydrologic Atlas: .
☒ USGS NHD data.
☐ USGS 8 and 12 digit HUC maps.
☒ U.S. Geological Survey map(s). Cite scale & quad name: .
☒ USDA Natural Resources Conservation Service Soil Survey. Citation: USDA. 2010. NRCS. Websoil Survey..
☐ National wetlands inventory map(s). Cite name: .
☐ State/Local wetland inventory map(s): .
☐ FEMA/FIRM maps: .
☐ 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)
☐ Photographs: ☐ Aerial (Name & Date): .
or ☐ Other (Name & Date): .
☐ Previous determination(s). File no. and date of response letter: .
☐ Applicable/supporting case law: .
☐ Applicable/supporting scientific literature: .
☐ Other information (please specify): .

B. ADDITIONAL COMMENTS TO SUPPORT JD: Non-jurisdictional waters and wetlands that have no hydrological connectivity to waters or wetlands of the U.S.

APPENDIX L

Potential to Occur for Special-Status Plants on Warner Ranch

APPENDIX L
Potential to Occur for Special-Status Plants on Warner Ranch

Scientific Name	Common Name	Status: Federal/State/ County	CRPR List	Primary Habitat Associations/ Life Form/ Blooming Period	Status Project Area or Potential to Occur
Abronia villosa var. *aurita*	chaparral sand-verbena	None/None/ List A	1B.1	Chaparral, Coastal scrub, Desert dunes; sandy/annual herb/ Jan-Sep	Suitable habitat in the project area but determined absent based on focused surveys.
Acanthomintha ilicifolia	San Diego thorn-mint	FT/SE/List A	1B.1	Chaparral, Coastal scrub, Valley and foothill grassland, Vernal pools; clay/ annual herb/Apr-Jun	Suitable habitat in the project area but determined absent based on focused surveys.
Adolphia californica	California adolphia	None/None/ List B	2.1	Chaparral, Coastal scrub, Valley and foothill grassland; clay/deciduous shrub/ Dec-May	Suitable habitat in the project area but determined absent based on focused surveys.
Allium munzii	Munz's onion	FE/ST/None	1B.1	Chaparral, Cismontane woodland, Coastal scrub, Pinyon and juniper woodland, Valley and foothill grassland; mesic, clay/ bulbiferous herb/Mar-May	Suitable habitat in the project area but determined absent based on focused surveys.
Ambrosia pumila	San Diego ambrosia	FE/None/List A	1B.1	Chaparral, Coastal scrub, Valley and foothill grassland, Vernal pools/often in disturbed areas, sometimes alkaline/ rhizomatous herb/Apr–Oct	Suitable habitat in the project area but determined absent based on focused surveys.
Arctostaphylos glandulosa ssp. *crassifolia*	Del Mar manzanita	FE/None/List A	1B.1	Chaparral(maritime, sandy)/ evergreen shrub/Dec-Jun	Not expected to occur; project area is outside of known range. This species would have been detected during plant surveys.
Arctostaphylos rainbowensis	Rainbow manzanita	None/None/ List A	1B.1	Chaparral; evergreen shrub/ Dec-Mar	**Occurs in the project area.** Seven individuals were observed, primarily in the northwest portion of the project area and one location in the northeast.
Astragalus oocarpus	San Diego milk-vetch	None/None/ List A	1B.2	Chaparral(openings), Cismontane woodland/ perennial herb/May-Aug	Suitable habitat in the project area but determined absent based on focused surveys.
Astragalus pachypus var. *jaegeri*	Jaeger's bush milk-vetch	None/None/ List A	1B.1	Chaparral, Cismontane woodland, Coastal scrub, Valley and foothill grassland; sandy or rocky/ perennial shrub/Dec-Jun	Absent; not within elevation range and not detected during focused surveys.

Scientific Name	Common Name	Status: Federal/State/ County	CRPR List	Primary Habitat Associations/ Life Form/ Blooming Period	Status Project Area or Potential to Occur
Berberis nevinii	Nevin's barberry	FE/SE/List A	1B.1	Chaparral, Cismontane woodland, Coastal scrub, Riparian scrub; sandy or gravelly / evergreen shrub/ Mar-Jun	Suitable habitat in the project area but determined absent based on focused surveys.
Brodiaea filifolia	thread-leaved brodiaea	FT/SE/List A	1B.1	Chaparral(openings), Cismontane woodland, Coastal scrub, Playas, Valley and foothill grassland, Vernal pools; often clay/ bulbiferous herb/Mar-Jun	Suitable habitat in the project area but determined absent based on focused surveys..
Brodiaea orcuttii	Orcutt's brodiaea	None/None/ List A	1B.1	Closed-cone coniferous forest, Chaparral, Cismontane woodland, Meadows and seeps, Valley and foothill grassland, Vernal pools; mesic, clay, sometimes serpentinite/ bulbiferous herb/May-Jul	Not expected to occur based on lack of suitable habitat and not detected during focused surveys.
Brodiaea santarosae	Santa Rosa Basalt brodiaea	None/None/ None	1B	Valley and foothill grassland; basaltic/ bulbiferous herb/ May-Jun	Not expected to occur; not within elevation range and not detected during focused surveys.
California macrophylla	round-leaved filaree	None/None/ None	1B.1	Cismontane woodland, Valley and foothill grassland; clay/ annual herb/Mar-May	Suitable habitat in the project area but determined absent based on focused surveys.
Calochortus dunnii	Dunn's mariposa lily	None/SR/ List A	1B.2	Closed-cone coniferous forest, Chaparral, Valley and foothill grassland/gabbroic or metavolcanic, rocky; bulbiferous herb/Apr-Jun	Not expected to occur; not within elevation range and not detected during focused surveys.
Calochortus plummerae	Plummer's mariposa lily	None/None/ None	1B.2	Chaparral, Cismontane woodland, Coastal scrub, Lower montane coniferous forest, Valley and foothill grassland; granitic, rocky/ bulbiferous herb/May-Jul	Suitable habitat in the project area but determined absent based on focused surveys.
Calochortus weedii var. *intermedius*	intermediate mariposa lily	None/None/ None	1B.2	Chaparral, Coastal scrub, Valley and foothill grassland; rocky, calcareous/ bulbiferous herb/May-Jul	Suitable habitat in the project area but determined absent based on focused surveys.
Caulanthus simulans	Payson's jewel-flower	None/None/ List D	4.2	Chaparral, coastal scrub; sandy granitic/Mar-May	Suitable habitat in the project area but determined absent based on focused surveys.

Scientific Name	Common Name	Status: Federal/State/ County	CRPR List	Primary Habitat Associations/ Life Form/ Blooming Period	Status Project Area or Potential to Occur
Ceanothus cyaneus	Lakeside ceanothus	None/None/ List A	1B.2	Closed-cone coniferous forest, Chaparral/ evergreen shrub/Apr-Jun	Suitable habitat in the project area but determined absent based on focused surveys.
Ceanothus ophiochilus	Vail Lake ceanothus	FT/SE/None	1B.1	Chaparral (gabbroic or pyroxenite-rich outcrops)/ evergreen shrub/Feb-Mar	Not expected to occur; not within elevation range and not detected during focused surveys.
Ceanothus verrucosus	wart-stemmed ceanothus	None/None/ List B	2.2	Chaparral/ evergreen shrub/Dec-May	Suitable habitat in the project area but determined absent based on focused surveys.
Centromadia parryi ssp. *australis*	Southern tarplant	None/None/ List A	1B.1	Marshes and swamps, valley and foothill grassland (vernally mesic), vernal pools, often in disturbed sites with alkaline soils near the coast/ annual herb/ May–November	Not expected to occur. Along the California coast this species is typically seen in seasonally mesic areas or along disturbed roads, trails, and habitat edges with alkaline soils. Would have been detected during 2010 surveys if present.
Centromadia pungens ssp. *laevis*	smooth tarplant	None/None/ List A	1B.1	Chenopod scrub, Meadows and seeps, Playas, Riparian woodland, Valley and foothill grassland; alkaline/ annual herb/Apr-Sep	Suitable habitat in the project area but determined absent based on focused surveys.
Chorizanthe parryi var. *parryi*	Parry's spineflower	None/None/ None	1B.1	Chaparral, Cismontane woodland, Coastal scrub, Valley and foothill grassland; sandy or rocky, openings/ annual herb/Apr-Jun	Suitable habitat in the project area but determined absent based on focused surveys.
Chorizanthe polygonoides var. *longispina*	long-spined spineflower	None/None/ None	1B.2	Chaparral, Coastal scrub, Meadows and seeps, Valley and foothill grassland, Vernal pools; often clay/ annual herb/Apr-Jul	Suitable habitat in the project area but determined absent based on focused surveys.
Chorizanthe procumbens	Prostrate spineflower	None/None/ None	None	Chaparral, Valley Grassland, Pinyon-Juniper Woodland, Coastal Sage Scrub/ annual herb	**Occurs in the project area.** Approximately 410 individuals were observed in the southeast portion of the project area.
Clarkia delicata	delicate clarkia	None/None/ List A	1B.2	Chaparral, Cismontane woodland/often gabbroic; annual herb/Apr-Jun	Not expected to occur based on lack of suitable soils and not detected during focused surveys.

Scientific Name	Common Name	Status: Federal/State/ County	CRPR List	Primary Habitat Associations/ Life Form/ Blooming Period	Status Project Area or Potential to Occur
Comarostaphylis diversifolia ssp. *diversifolia*	summer holly	None/None/ List A	1B.2	Chaparral, Cismontane woodland/ evergreen shrub/Apr-Jun	Suitable habitat in the project area but determined absent based on focused surveys.
Deinandra mohavensis	Mojave tarplant	None/SE/List A	1B.3	Chaparral, Coastal scrub, Riparian scrub; mesic/ annual herb/ Jun-Oct(Jan)	Not expected to occur; not within elevation range and not detected during focused surveys.
Delphinium hesperium ssp. *cuyamacae*	Cuyamaca larkspur	None/SR/ List A	1B.2	Lower montane coniferous forest, Meadows and seeps, Vernal pools; mesic/ perennial herb/ May-Jul	Not expected to occur; not within elevation range and not detected during focused surveys.
Dodecahema leptoceras	slender-horned spineflower	FE/SE/None	1B.1	Chaparral, Cismontane woodland, Coastal scrub(alluvial fan); sandy/ annual herb/ Apr-Jun	Suitable habitat in the project area but determined absent based on focused surveys.
Dudleya multicaulis	many-stemmed dudleya	None/None/ List A	1B.2	Chaparral, Coastal scrub, Valley and foothill grassland; often clay/ perennial herb/ Apr-Jul	Suitable habitat in the project area but determined absent based on focused surveys.
Dudleya viscida	sticky dudleya	None/None/ List A	1B.2	Coastal bluff scrub, Chaparral, Cismontane woodland, Coastal scrub; rocky/ perennial herb/ May-Jun	Suitable habitat in the project area but determined absent based on focused surveys.
Eryngium aristulatum var. *parishii*	San Diego button-celery	FE/SE/List A	1B.1	Coastal scrub, Valley and foothill grassland, Vernal pools; mesic/ annual and perennial herb/ Apr-Jun	Suitable habitat in the project area but determined absent based on focused surveys.
Githopsis diffusa ssp. *filicaulis*	Mission Canyon bluecup	None/None/ List C	3.1	Chaparral(mesic, disturbed areas)/annual herb/Apr-Jun	Not expected to occur; not within elevation range and not detected during focused surveys.
Harpagonella palmeri	Palmer's grapplinghook	None/None/ List D	4.2	Chaparral, Coastal scrub, Valley and foothill grassland; clay/annual herb/Mar-May	**Occurs in the project area.** Approximately 650 individuals were mapped west of Gomez Creek.
Hesperocyparis forbesii	Tecate cypress	None/None/ None	1B.1	Closed-cone coniferous forest, Chaparral, Valley and foothill grassland; gabbroic or metavolcanic, rocky/ evergreen tree	Not expected to occur. This species would have been observed during 2010 surveys.
Holocarpha virgata ssp. *elongata*	Graceful tarplant	None/None/ List D	4.2	Coastal scrub, cismontane woodland, chaparral (?), valley and foothill grassland/ annual herb/ Aug-Nov	**Occurs in the project area.** Approximately 23,500 individuals were mapped in the eastern portion of the project area.

Scientific Name	Common Name	Status: Federal/State/ County	CRPR List	Primary Habitat Associations/ Life Form/ Blooming Period	Status Project Area or Potential to Occur
Horkelia cuneata ssp. *puberula*	Mesa horkelia	None/None/ List A	1B.1	Chaparral, cismontane woodland, coastal scrub (sandy or gravelly)/ Perennial herb/ February–July	Suitable habitat in the project area but determined absent based on focused surveys.
Horkelia truncata	Ramona horkelia	None/None/ List A	1B.3	Chaparral, Cismontane woodland; clay, gabbroic/ perennial herb/May-Jun	Not expected to occur; not within elevation range and not detected during focused surveys.
Hulsea californica	San Diego sunflower	None/None/ List A	1B.3	Chaparral, Lower montane coniferous forest, Upper montane coniferous forest/openings and burned areas/ perennial herb/ Apr-Jun	Not expected to occur; not within elevation range and not detected during focused surveys.
Isocoma menziesii var. *decumbens*	decumbent goldenbush	None/None/ List A	1B.2	Chaparral, Coastal scrub(sandy, often in disturbed areas)/ perennial shrub/ Apr-Nov	Suitable habitat in the project area but determined absent based on focused surveys.
Juncus luciensis	Santa Lucia dwarf rush	None/None/ None	1B.2	Coastal bluff scrub, coastal scrub; alkaline/ annual herb/ April–October	Not expected to occur based on lack of alkaline soils in the project area; not detected during focused surveys.
Lasthenia glabrata ssp. *coulteri*	Coulter's goldfields	None/None/ List A	1B.1	Marshes and swamps (coastal salt), playas, vernal pools/ Annual herb/ March–June	Not expected to occur within project area based on lack of suitable habitats present.; not detected during focused surveys
Lepidium virginicum var. *robinsonii*	Robinson's pepper-grass	None/None/ List A	1B.2	Chaparral, Coastal scrub; annual herb/Jan-Jul	Suitable habitat in the project area but determined absent based on focused surveys.
Lilium parryi	lemon lily	None/None/ List A	1B.2	Lower montane coniferous forest, Meadows and seeps, Riparian forest, Upper montane coniferous forest; mesic/ bulbiferous herb/ Jul-Aug	Not expected to occur; not within elevation range; not detected during focused surveys.
Linanthus orcuttii	Orcutt's linanthus	None/None/ List A	1B.3	Chaparral, Lower montane coniferous forest, Pinyon and juniper woodland openings/ annual herb/ May-Jun	Not expected to occur; not within elevation range; not detected during focused surveys.

Scientific Name	Common Name	Status: Federal/State/ County	CRPR List	Primary Habitat Associations/ Life Form/ Blooming Period	Status Project Area or Potential to Occur
Monardella hypoleuca ssp. *lanata*	felt-leaved monardella	None/None/ List A	1B.2	Chaparral, Cismontane woodland/ rhizomatous herb/Jun-Aug	Suitable habitat in the project area but determined absent based on focused surveys.
Monardella macrantha ssp. *hallii*	Hall's monardella	None/None/ List A	1B.3	Broadleafed upland forest, Chaparral, Cismontane woodland, Lower montane coniferous forest, Valley and foothill grassland/ rhizomatous herb/ Jun-Oct	Not expected to occur; not within elevation range; not detected during focused surveys.
Monardella nana ssp. *leptosiphon*	San Felipe monardella	None/None/ List A	1B.2	Chaparral, Lower montane coniferous forest/ rhizomatous herb/ Jun-Jul	Not expected to occur; not within elevation range; not detected during focused surveys.
Myosurus minimus ssp. *apus*	little mousetail	None/None/ List C	3.1	Valley and foothill grassland, Vernal pools(alkaline)/ annual herb/Mar-Jun	Not expected to occur based on lack of suitable habitat and soils; not detected during focused surveys.
Navarretia fossalis	Moran's nosegay	FT/None/List A	1B.1	Chenopod scrub, Marshes and swamps(assorted shallow freshwater), Playas, Vernal pools/ annual herb/ Apr-Jun	Not expected to occur based on lack of suitable habitat and soils; not detected during focused surveys.
Navarretia prostrata	prostrate vernal pool navarretia	None/None/ List A	1B.1	Coastal scrub, Meadows and seeps, Valley and foothill grassland(alkaline), Vernal pools; mesic/ annual herb/ Apr-Jul	Suitable habitat in the project area but determined absent based on focused surveys.
Nolina cismontana	chaparral nolina	None/None/ List A	1B.2	Chaparral, Coastal scrub/ sandstone or gabbro / evergreen shrub/ May-Jul	Suitable habitat in the project area but determined absent based on focused surveys.
Orcuttia californica	California Orcutt grass	FE/SE/List A	1B.1	Vernal pools/ annual herb/ Apr-Aug	Not expected to occur based on lack of suitable habitat; not detected during focused surveys.
Packera ganderi	Gander's ragwort	None/SR/ List A	1B.2	Chaparral(burns, gabbroic outcrops)/ perennial herb/ Apr-Jun	Not expected to occur; not within elevation range; not detected during focused surveys.
Penstemon californicus	California beardtongue	None/None/ None	1B.2	Chaparral, Lower montane coniferous forest, Pinyon and juniper woodland; sandy/ perennial herb/ May-Jun(Aug)	Not expected to occur; not within elevation range; not detected during focused surveys.

Scientific Name	Common Name	Status: Federal/State/ County	CRPR List	Primary Habitat Associations/ Life Form/ Blooming Period	Status Project Area or Potential to Occur
Phacelia suaveolens ssp. *keckii*	Santiago Peak phacelia	None/None/ None	1B.3	Closed-cone coniferous forest, Chaparral/ annual herb/ May-Jun	Not expected to occur; not within elevation range; not detected during focused surveys.
Piperia leptopetala	Narrow-petaled rein orchid	None/None/ List D	4.3	Cismontane woodland, lower montane coniferous forest, upper montane coniferous forest/ perennial herb/May-Jul	Not expected to occur; not within elevation range; not detected during focused surveys.
Pseudognaphalium leucocephalum	White rabbit tobacco	None/None/ None	2.2	Chaparral, cismontane woodland, coastal scrub, riparian woodland, sandy or gravelly/ Perennial herb/ Aug–Nov	Suitable habitat in the project area but determined absent based on focused surveys
Quercus engelmannii	Engelmann oak	None/None/ List D	4.2	Chaparral, Cismontane woodland, Riparian woodland, Valley and foothill grassland/ deciduous tree/ Mar- Jun	**Occurs in the project area.** 12 oaks were mapped along Gomez Creek and 1 in the eastern portion of the project area.
Satureja chandleri	San Miguel savory	None/None/ List A	1B.2	Chaparral, Cismontane woodland, Coastal scrub, Riparian woodland, Valley and foothill grassland; rocky, gabbroic or metavolcanic/ perennial shrub/ Mar-Jul	Suitable habitat in the project area but determined absent based on focused surveys.
Schizymenium shevockii	Shevock's copper moss	None/None/ None	1B.2	Cismontane woodland (metamorphic, rock, mesic)/ moss	Not expected to occur; not within elevation range; not detected during focused surveys..
Scutellaria bolanderi ssp. *austromontana*	southern mountains skullcap	None/None/ List A	1B.2	Chaparral, Cismontane woodland, Lower montane coniferous forest; mesic/ rhizomatous herb/ Jun-Aug	Not expected to occur; not within elevation range; not detected during focused surveys.
Symphyotrichum defoliatum	San Bernardino aster	None/None/ None	1B.2	Cismontane woodland, Coastal scrub, Lower montane coniferous forest, Meadows and seeps, Marshes and swamps, Valley and foothill grassland (vernally mesic)/ near ditches, streams, springs/ rhizomatous herb/ Jul-Nov	Suitable habitat in the project area but determined absent based on focused surveys.
Tetracoccus dioicus	Parry's tetracoccus	None/None/ List A	1B.2	Chaparral, Coastal scrub/ deciduous shrub/ Apr-May	**Occurs in the project area.** Approximately 524 were mapped in the western portion of the project area.

Scientific Name	Common Name	Status: Federal/State/ County	CRPR List	Primary Habitat Associations/ Life Form/ Blooming Period	Status Project Area or Potential to Occur
Tortula californica	California screw-moss	None/None/ None	1B.2	Chenopod scrub, Valley and foothill grassland; sandy, soil/moss	Suitable habitat in the project area but determined absent based on focused surveys.
Viola purpurea ssp. *aurea*	golden violet	None/None/ List B	2.2	Great Basin scrub, Pinyon juniper woodland/Perennial herb/ Apr-Jun	Not expected to occur; not within elevation range; not detected during focused surveys.
Xanthisma junceum	Rush-like bristleweed	None/None/ List D	4.3	Chaparral, coastal scrub/ perennial herb/ June-January/ 240 - 1000 meters	**Occurs in the project area.** Five locations were mapped in the northwest corner of the project area.

APPENDIX M

Potential to Occur for Special-Status Wildlife on Warner Ranch

APPENDIX M
Potential to Occur for Special-Status Wildlife on Warner Ranch

Scientific Name	Common Name	Status Federal/State/ County/Other[1]	Primary Habitat Associations	Status in the project area or Potential to Occur
Amphibians				
Anaxyrus [=*Bufo*] *californicus*	Arroyo toad	FE/SSC/ Group 1	Stream channels for breeding (typically 3rd order); adjacent stream terraces and uplands for foraging and wintering. Requires exposed sandy streamsides with stable terraces to burrow with scattered vegetation and calm pools with sandy/gravel bottoms for breeding	Focused surveys in 2005 and 2010 were negative; not expected to occur in the project area. The nearest CNDDB record is 0.3 miles south of the project area in the San Luis Rey River, and 0.3 miles north of the project area in Pala Creek, Pala quadrangle (2000).
Spea [=*Scaphiopus*] *hammondi*	Western spadefoot	None/SSC/ Group 2	Most common in grasslands, coastal sage scrub near rain pools or vernal pools; riparian habitats with sandy/gravelly soils. Also found within mixed woodlands, chaparral, sandy washes, and foothills. Breed in rainpools that do not have bullfrogs, fish, or crayfish	Moderate potential to occur. Suitable habitat in the project area. The nearest CNDDB occurrence record is located 5.6 miles north of the project area in the Pechanga quadrangle (2000).
Reptiles				
Actinemys [=Emys] marmorata	Western pond turtle	None/SSC/ Group 1	Slow-moving permanent or intermittent streams, ponds, small lakes, reservoirs with emergent basking sites; adjacent uplands used during winter	No potential to occur in the project area; no suitable habitat present in the project area. The nearest CNDDB occurrence record is 9 miles northwest of the project area within the Temecula quadrangle in Riverside Co (1999).
Anniella pulchra pulchra	Silvery legless lizard	None/SSC/ Group 2	Loose soils (sand, loam, humus) in coastal dune, coastal sage scrub, woodlands, and riparian habitats	Moderate potential to occur. Suitable habitat in the project area. The nearest CNDDB occurrence record is 37 miles southeast of the project area within the Julian quadrangle (2005).

Scientific Name	Common Name	Status Federal/State/ County/Other[1]	Primary Habitat Associations	Status in the project area or Potential to Occur
Aspidoscelis hyperythrus	Orange-throated whiptail	None/SSC/ Group 2	Coastal sage scrub, chaparral, chamise-redshank chaparral, mixed chaparral, valley-foothill hardwood, grassland, juniper and oak woodland, especially in areas with summer fog.	High potential to occur. Suitable habitat in the project area. The nearest CNDDB record is 2 miles east of the project area in the Pala quadrangle (1989). Two more recent occurrence records (2000) are 2 miles south of the project area in the Pala quadrangle.
Aspidoscelis tigris stejnegeri	Coastal western whiptail	None/None/ Group 2	Hot and dry open areas with sparse foliage including Coastal sage scrub, chaparral, woodlands, riparian areas; sandy areas, gravelly arroyos, or washes	**Detected in the project area.** The nearest CNDDB record is 7 miles north of the project area in the Temecula quadrangle (2001).
Coleonyx variegatus abbotti	San Diego banded gecko	None/None/ Group 1	Arid rocky areas at the heads of canyons with large boulders and rock outcrops, sparse vegetation, commonly on arid desert slopes. Habitat includes Cismontane chaparral, coastal sage scrub, desert scrub; granite outcrops	Moderate potential to occur. Suitable habitat in the project area. The nearest CNDDB record is 10 miles northwest of the project area in the Bachelor Mtn. quadrangle (1997).
Crotalus ruber ruber	Northern red-diamond rattlesnake	None/SSC/ Group 2	Variety of shrub habitats where there is heavy brush, large rocks, or boulders. Chaparral, oak and pine woodland, arid desert, rocky grassland habitats; rocky desert flats on desert slopes of mountains.	**Detected in the project area.**
Diadophis punctatus similis	San Diego ringneck snake	None/None/ Group 2	Open, rocky areas in moist habitats near intermittent streams: marsh, riparian woodland, sage scrub, rocky hillsides, chaparral, and mixed coniferous forests and woodlands.	Moderate potential to occur. Suitable habitat in the project area. The nearest CNDDB record is 11 miles west of the project area in the Fallbrook quadrangle (1999).

Scientific Name	Common Name	Status Federal/State/ County/Other[1]	Primary Habitat Associations	Status in the project area or Potential to Occur
Lichanura [=Charina] trivirgata roseofusca	Coastal rosy boa	None/None/ Group 2	Rocky chaparral, coastal sage scrub, oak woodlands, desert and semi-desert scrub in hillsides and canyons; scrub flats with good cover, common in riparian areas but does not require permanent water.	Moderate potential to occur. Suitable habitat in the project area. There were no CNDDB records for *L. trivirgata roseofusca* but the nearest record for *L. trivirgata* is 11 miles northeast of the project area in the Vail Lake quadrangle (2004). There are two records from the 1920s that are approximately 4.3 miles southwest of the project area.
Phrynosoma blainvillei	Blainville's horned lizard	None/SSC/ Group 2	Coastal sage scrub, annual grassland, chaparral, oak and riparian woodland, coniferous forest. Areas of sandy soil and low vegetation in valleys, foothills, and semiarid mountains sandy areas, frequently near ant hills.	**Detected in the project area.**
Salvadora hexalepis virgultea	Coast patch-nosed snake	None/SSC/ Group 2	Semi-arid brushy areas, Chaparral, washes, sandy flats, rocky areas in canyons, rocky hillsides, plains	Moderate potential to occur. Suitable habitat in the project area. The nearest CNDDB record is 14 miles northeast of the project area in the Aguanga quadrangle (1999).
Thamnophis hammondii	Two-striped garter snake	None/SSC/ Group 1	Marshes, meadows, sloughs, ponds, slow-moving water courses including permanent or semi-permanent bodies of water; bordered by dense vegetation in rocky areas, oak woodland, chaparral, brushland, coniferous forest.	**Detected in the project area in 2005 (Dudek 2005a).**
Birds				
Accipiter cooperii (nesting)	Cooper's hawk	None/WL/ Group 1	Dense stands of live oak, Riparian and oak woodlands, montane canyons, forest habitats near water	**Detected foraging in the project area.** Suitable nesting habitat in oak woodlands.
Accipiter striatus (nesting)	Sharp-shinned hawk	BCC/SSC/ Group 1	Nests in coniferous forests, ponderosa pine, black oak, riparian deciduous, mixed conifer, Jeffrey pine; winters in lowland woodlands and other habitats	**Detected in the project area in October 2010 (Envira 2010).** Does not nest on coastal slope in San Diego County; no breeding habitat in the project area.

Scientific Name	Common Name	Status Federal/State/ County/Other[1]	Primary Habitat Associations	Status in the project area or Potential to Occur
Aimophila ruficeps canescens	Southern California rufous-crowned sparrow	None/WL/ Group 1	Sparse mixed chaparral and coastal scrub habitats (especially coastal sage). Found on steep, rocky hillsides with grass and forb patches, and grassy slopes without shrubs, if boulders/rock outcrops are present	**Detected in the project area.** Assumed nesting based on season of observation.
Ammodramus savannarum	Grasshopper sparrow	None/SSC/ Group 1	Dry, dense grasslands, especially with a variety of grasses and tall forbs, scattered shrubs for singing perches; hillsides and mesas in coastal areas.	Moderate potential to occur in grasslands in the project area. The nearest CNDDB record is 40 miles northwest of the project area in the El Toro quadrangle (2003).
Amphispiza belli belli (nesting)	Bell's sage sparrow	BCC/WL/ Group 1	Coastal sage scrub, and dry chaparral (especially chamise chaparral) along coastal lowlands and inland valleys with low, dense stands of shrubs.	Moderate potential to occur. Suitable habitat in the project area. The nearest CNDDB record is 6.8 miles northwest of the project area in the Temecula quadrangle (2001).
Aquila chrysaetos (nesting and nonbreeding/wintering)	Golden eagle	BCC/CDF, WL, FP/Group 1	Open country, especially hilly and mountainous regions, rolling foothills; grassland, coastal sage scrub, chaparral, oak savannas, open coniferous forest, desert, sage-juniper flats	**Detected in the project area.** This species was incidentally observed during small mammal trapping in October 2010 (Envira 2010). Moderate potential to forage in the project area; no suitable nesting habitat in the project area. Golden eagle nest surveys conducted at historical locations (provided by County and TAIC) in October 2011 and January 2012 were negative.
Ardea herodias	Great blue heron	None/None/ Group 2	Variety of habitats, but primarily wetlands; shallow estuaries and fresh and saline emergent wetlands, lakes, rivers, marshes, mudflats, saltmarsh, riparian habitats	**Detected in the project area.**

Scientific Name	Common Name	Status Federal/State/ County/Other[1]	Primary Habitat Associations	Status in the project area or Potential to Occur
Athene cunicularia (burrow sites and some wintering sites)	Burrowing owl	BCC/SSC/ Group 1	Open, dry grassland and desert habitats, lowland scrub, coastal dunes, artificial open areas including agriculture; grass, forb and open shrub stages of pinyon-juniper and ponderosa pine habitats	Low potential to occur in the project area. Suitable habitat present in the project area. The nearest CNDDB record is 6.2 miles north of the project area in the Pechanga quadrangle (1999).
Buteo lineatus	Red-shouldered hawk	None/None/ Group 1	Riparian and woodland habitats, also eucalyptus, interspersed with swamps and wetlands found along coast and southern deserts	**Detected in the project area.**
Campylorhynchus brunneicapillus sandiegensis (San Diego and Orange Counties only)	Coastal cactus wren	BCC/SSC/ Group 1	Southern cactus scrub, maritime succulent scrub, cactus thickets in coastal sage scrub in arid parts on westward-draining slopes	**Detected in the project area.**
Cathartes aura	Turkey vulture	None/None/ Group 1	Rangeland, agriculture, grassland; uses cliffs and large trees for roosting, nesting and resting	**Detected in the project area.**
Circus cyaneus (nesting)	Northern harrier	None/SSC/ Group 1	Open wetlands (nesting), pasture, old fields, dry uplands, grasslands, rangelands, coastal sage scrub; breeds at marsh edge in shrubby vegetation	**Detected in the project area in 2005.**
Dendroica petechia brewsteri	Yellow warbler	None/SSC/ Group 2	Nests in lowland and foothill riparian woodlands dominated by cottonwoods, alders and willows, montane chaparral; winters in a variety of habitats	**Detected in the project area.**
Elanus leucurus (nesting)	White-tailed kite	None/FP/ Group 1	Open grasslands, savanna-like habitats, agriculture, wetlands, oak woodlands, riparian, herbaceous and open stages of most habitats in cismontane California, often near agricultural areas.	**Detected in the project area during the non-breeding season, September and October 2010.**

Scientific Name	Common Name	Status Federal/State/ County/Other[1]	Primary Habitat Associations	Status in the project area or Potential to Occur
Empidonax traillii extimus (nesting)	Southwestern willow flycatcher	FE/SE/Group 1	Riparian woodlands along streams and rivers with mature, dense stands of willows or alders; may nest in thickets dominated by tamarisk. Also broad, open river valleys or large mountain meadows with lush growth of shrubby willows.	Focused surveys in 2005 and 2010 were negative; expected to occur low potential to breed in proposed open space within the project area. The nearest CNDDB record 0.3 miles south of the project area in the Pala quadrangle (2005).
Eremophila alpestris actia	California horned lark	None/WL/ Group 2	Open habitats, grassland, rangeland, shortgrass prairie, montane meadows, coastal plains, fallow grain fields	Moderate potential to occur. Suitable habitat in the project area. The nearest CNDDB record is 8.7 miles north of the project area in the Bachelor Mtn. quadrangle (1997).
Falco mexicanus	Prairie falcon	BCC/WL/ Group 1	Grassland, savannas, rangeland, agriculture, desert scrub, alpine meadows; nest on cliffs or bluffs	Moderate potential to forage over site. No suitable nesting habitat in the project area. The nearest CNDDB record is 23 miles east of the project area in the Warner Springs quadrangle (1980).
Icteria virens (nesting)	Yellow-breasted chat	None/SSC/ Group 1	Dense, relatively wide riparian woodlands and thickets of willows, vine tangles and dense brush. Breeds in coastal areas and valley foothill riparian	Low potential to occur based on lack of willow habitat in the project area; further, this species was not observed during numerous riparian bird surveys. The nearest CNDDB record is 0.3 miles south of the project area in the Pala quadrangle (2000).
Lanius ludovicianus	Loggerhead shrike	BCC/SSC/ Group 1	Foothills and lowlands with open habitats with scattered shrubs, trees or other suitable perches; highest density in open-canopied valley foothill hardwood, valley foothill hardwood-conifer, valley foothill riparian, pinyon-juniper, juniper, desert riparian, agriculture, and Joshua tree habitats	Moderate potential to occur. Suitable habitat in the project area. The nearest CNDDB record is 14 miles north of the project area in the Lake Elsinore quadrangle (2001).

Scientific Name	Common Name	Status Federal/State/ County/Other[1]	Primary Habitat Associations	Status in the project area or Potential to Occur
Larus californicus	California gull	None/WL/ Group 2	Coast: sandy beaches, mudflats, rocky intertidal and pelagic areas of marine and estuarine habitats, fresh and saline emergent wetlands. Inland: lacustrine, riverine, and cropland habitats, landfill dumps, and open lawns in cities. Nests in alkali and freshwater lacustrine habitats; adults roost along shorelines, landfills, pastures, and on islands.	Low potential to forage in the project area. The nearest CNDDB record is 84 miles southeast of the project area in the Obsidian Butte quadrangle (1999).
Polioptila californica californica	Coastal California gnatcatcher	FT/SSC/ Group 1	Coastal sage scrub, coastal sage scrub-chaparral mix, coastal sage scrub-grassland ecotone, riparian in late summer	Focused surveys in 2005 and 2010 were negative; not expected to occur in the project area. The nearest CNDDB record is 3.7 miles west of the project area in the Bonsall quadrangle (1996).
Sialia mexicana	Western bluebird	None/None/ Group 2	Open forests of deciduous, coniferous or mixed trees, savanna, edges of riparian woodland	**Detected in the project area.**
Tyto alba	Common barn-owl	None/None/ Group 2	Open habitats including grassland, chaparral, riparian, and other wetlands.	**Detected in the project area.**
Vireo bellii pusillus (nesting)	Least Bell's vireo	FE/SE/Group 1	Nests in southern willow scrub with dense cover within 1-2 meters of the ground; habitat includes willows, cottonwoods, baccharis, wild blackberry or mesquite on desert areas, commonly in valley foothill riparian habitat and lower portions of canyons	**One migrant detected in the project area in October 2010 during focused mammal surveys; focused LBVI surveys in 2005 and 2010 were negative; low potential not expected to breed in the project area.** The nearest CNDDB record is 1.2 miles south of the project area in the Pala quadrangle (2000).
Mammals				
Antrozous pallidus	Pallid bat	None/SSC/ Group 2/ WBWG:H	Rocky outcrops, cliffs, and crevices with access to open habitats for foraging. Most common in open dry habitats: grasslands, shrublands, woodlands, forests	Moderate potential to occur in the project area. The nearest CNDDB record is 10.5 miles southeast of the project area in the Boucher Hill quadrangle (2002).

Scientific Name	Common Name	Status Federal/State/ County/Other[1]	Primary Habitat Associations	Status in the project area or Potential to Occur
Bassariscus astutus	Ringtail	None/None/ Group 2	Mixed forests and shrublands near rocky areas or riparian habitats. Forages near water and is seldom found more than 1km from a water source	High to moderate potential to occur in the project area; high quality suitable habitat present in the project area. There are no CNDDB records for this species.
Chaetodipus californicus femoralis	Dulzura pocket mouse	None/SSC/ Group 2	Coastal sage scrub, chaparral, more mesic areas Open habitat, coastal sage scrub, chaparral, oak woodland, chamise chaparral, mixed conifer habitats, riparian-scrub ecotone; is a disturbance specialist	Moderate potential to occur in suitable scrub and chaparral habitat. Not detected during small mammal trapping; however, the trapping was not within this species' suitable habitat. The nearest CNDDB record is 18 miles east of the project area in the Aguanga quadrangle (2002). There are closer records to the project area (3.5 miles) but they are older (1971).
Chaetodipus fallax fallax	northwestern San Diego pocket mouse	None/SSC/ Group 2	Coastal sage scrub, grassland, sage scrub-grassland ecotones, sparse mixed and chamise chaparral; rocky and gravelly areas with yucca overstory, rocky substrates, loams and sandy loams	**Detected in the project area during small mammal trapping survey (Envira 2010).**
Corynorhinus townsendii	Townsend's big-eared bat	None/SSC/ Group 2/ WBWG:H	Mesic habitats, gleans from brush or trees or feeds along habitat edges in all habitats except alpine and subalpine	Moderate potential to occur in the project area. The nearest CNDDB record is 28 miles southeast of the project area in the Santa Ysabel quadrangle (2003).
Dipodomys stephensi	Stephens' kangaroo rat	FE/ST/Group 1	Open habitat, grassland, sparse coastal sage scrub, sandy loam and loamy soils with low clay content; gentle slopes (<30%) and sparse vegetative cover	Focused surveys in 2010 were negative; not expected to occur in the project area. The nearest CNDDB record is 5.6 miles north of the project area in the Pechanga quadrangle (2002).
Eumops perotis californicus	Western mastiff bat	None/SSC/ Group 2/ WBWG: H	Roosts in small colonies in cracks and small holes, seeming to prefer man-made structures	Moderate potential to occur in the project area. The nearest CNDDB record is 7.8 miles south of the project area in the Pala quadrangle (1996).

Scientific Name	Common Name	Status Federal/State/ County/Other[1]	Primary Habitat Associations	Status in the project area or Potential to Occur
Lasiurus blossevillii	Western red bat	None/None/ Group 2/ WBWG: M/	Prefers open habitats or habitat mosaics with access to trees for cover and open areas or habitat edges for feeding. Roosts in woodlands and forests; forages over grasslands, shrublands, woodlands, forests, and croplands.	Moderate potential to occur in the project area. The nearest CNDDB record is 20 miles south of the project area in the San Pasqual quadrangle (2003).
Lepus californicus bennettii	San Diego black-tailed jackrabbit	None/SSC/ Group 2	Arid habitats with open ground; grasslands, coastal sage scrub, agriculture, disturbed areas, rangelands	Low potential to occur in the project area; would have been readily detected during numerous wildlife surveys throughout the project area. Suitable habitat present in the project area. The nearest CNDDB record is 6 miles north of the project area in the Pechanga quadrangle (2001).
Macrotus californicus	California leaf-nosed bat	SSC/Group 2/ WBWG:H	Desert riparian, desert wash, desert scrub, desert succulent shrub, alkali desert scrub, and palm oasis	Not expected to occur in the project area based on lack of Suitable habitat. The nearest CNDDB record is 56 miles southeast of the project area in the Barret Lake quadrangle (2003).
Myotis ciliolabrum	Western small-footed myotis	None/None/ Group 2/ WBWG:M	Deserts, chaparral, riparian zones, western coniferous forest; most common above pinyon-juniper forest. Roosts in Caves, old mines, abandoned buildings	Moderate potential to occur in the project area. The nearest CNDDB record is 19 miles southeast of the project area in the Rodriguez Mtn. quadrangle (2002).
Myotis yumanensis	Yuma myotis	None/None/ Group 2/ WBWG:LM	Closely tied to open water which is used for foraging; open forests and woodlands are optimal habitat	Moderate potential to occur in the project area. The nearest CNDDB record is 12.5 miles east of the project area in the Morro Hill quadrangle (1996).
Neotoma lepida intermedia	San Diego desert woodrat	None/SSC/ Group 2	Coastal sage scrub, Joshua tree, mixed and chamise-redshank chaparral, sagebrush, pinyon-juniper woodland; with rock outcrops, cactus thickets, dense undergrowth	**Detected in the project area** during small mammal trapping survey (Envira 2010).

Scientific Name	Common Name	Status Federal/State/ County/Other[1]	Primary Habitat Associations	Status in the project area or Potential to Occur
Nyctinomops femorosaccus	Pocketed free-tailed bat	None/SSC/ Group 2/ WBWG:M	Rocky desert areas with high cliffs or rock outcrops; pinyon-juniper woodlands, desert scrub, desert succulent shrub, desert riparian, desert wash, alkali desert scrub, Joshua tree, palm oasis	Not expected to occur based on lack of suitable habitat. Rare in California. The nearest CNDDB record is 10 miles southeast of the project area in the Boucher Hill quadrangle (2002).
Nyctinomops macrotis	Big free-tailed bat	None/SSC/ Group 2/ WBWG:MH	Rugged, rocky canyons	Low potential to occur based on lack of suitable habitat. The nearest CNDDB record is 17 miles south of the project area in the Escondido quadrangle (1988). More recent records for this species (2002) are located in Julian, Warner's Ranch, and Escondido quadrangles.
Odocoileus hemionus	Southern mule deer	None/None/ Group 2	Coastal sage scrub, chaparral, riparian, woodlands, forest; often browses in open areas adjacent to cover; found in most habitats except deserts and intensely farmed areas	**Detected in the project area.**
Onychomys torridus ramona	Southern grasshopper mouse	None/SSC/ Group 2	Alkali desert scrub and other desert scrub habitats, sparse coastal scrub, grassland especially with friable soils	Low potential to occur. Not detected during focused small mammal trapping surveys in 2010. The nearest CNDDB record is 15 miles northeast of the project area in the Sage quadrangle (2004).
Perognathus longimembris brevinasus	Los Angeles pocket mouse	None/SSC/ Group 2	Grassland, coastal sage scrub, disturbed habitats; fine, sandy soils	Not expected to occur in the project area. The project area is outside of known range for this species. Not observed during focused small mammal trapping surveys in 2010. The nearest CNDDB record is 6 miles north of the project area in the Pechanga quadrangle (1993).
Puma concolor	Mountain lion	None/None/ Group 2	coastal sage scrub, chaparral, riparian, woodlands, forest; rests in rocky areas, and on cliffs and ledges that provide cover; most abundant in riparian areas and brushy stages of most habitats	**Detected in the project area.**

Scientific Name	Common Name	Status Federal/State/ County/Other[1]	Primary Habitat Associations	Status in the project area or Potential to Occur
Taxidea taxus	American badger	None/SSC/ Group 2	Dry, open treeless areas, grasslands, coastal sage scrub, especially areas with friable soils	Moderate potential to occur. Suitable habitat in the project area; however, there is poor connectivity to off-site open space, a high degree of human disturbance in the area, and no badger sign was detected during surveys. The nearest CNDDB is 13 miles south of the project area in the San Marcos quadrangle, although no date is associated with this record. The nearest CNDDB record with a recent date (1997) is 28.5 miles northwest of the project area in the Canada Gobernadora quadrangle.
Invertebrates				
Danaus plexippus	Monarch butterfly	None/None/ Group 2	Overwinters in eucalyptus groves	**Detected in the project area.**
Euphydryas editha quino	Quino checkerspot butterfly	FE/None/ Group 1	Sparsely vegetated hilltops, ridgelines, occasionally rocky outcrops; host plant Plantago erecta and nectar plants must be present	Focused surveys conducted in 2008 were negative. Low potential to occur. Only one location is known from approximately 6 miles north of the project area in 1997. The nearest CNDDB record is 8.7 miles north of the project area in the Bachelor Mtn. quadrangle (1998).
Streptocephalus woottoni	Riverside fairy shrimp	FE/None/ Group 1	Deep, long-lived vernal pools, vernal pool-like seasonal ponds, stock ponds; warm water pools that have low to moderate dissolved solids; in patches of grassland or agriculture interspersed in coastal sage scrub vegetation	Not expected to occur. No vernal pool habitat in the project area. The nearest CNDDB record is 6 miles north of the project area in the Temecula quadrangle (2003).

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APPENDIX N

Cactus Wren Loss Estimate Memo

SHAPOURI & ASSOCIATES

PROJECT MANAGEMENT SERVICES

ENGINEERING • ARCHITECTURE • PLANNING

June 14, 2013

DUDEK
Attn: Mr. Vipul Joshi, Senior Project Manager/Ecologist
Via email:
vjoshi@dudek.com
605 THIRD STREET
ENCINITAS, CALIFORNIA 92024

Re: ***Warner Ranch Lot Loss Estimate if additional Cactus Wren was to be preserved and RPO Buffer has no Encroachments***

Dear Mr. Joshi,

Pursuant to your request, we have analyzed the proposed project development plans and in order to preserve the cactus wren habitat in the eastern portion of the project (Please see attached Exhibit "A") the proposed residential lots would be reduced by approximately 60 Units. This large reduction results from the fact that some of the proposed roads will be cut off as well. A loss of this magnitude is significant and would not be feasible.

The affected lot numbers are highlighted in Magenta color Box. Also highlighted in Yellow are the Street Lot No. 643, 645 and a portion of Street Lot no. 642 which will be affected. The existing cactus wren habitat is shown with a Red hatch.

In addition, on the East side of the proposed project, we have analyzed the possibility of constructing the proposed water line from the water tank reservoir to the development area, the Fire Management Zone encroachments and the Trails completely outside of the Resource Protection Ordinance (RPO) Buffers and the resulting disturbance is actually increased.

The waterline is currently designed to be placed within the existing access road which is already disturbed thus avoiding further disturbance of habitat, please refer to "Exhibit B". Rainbow Municipal Water District has also agreed to minimize their required easement for these portions of the waterline from 30 feet wide to 20 feet wide to minimize future impacts. We have also considered using other existing

roads within the Orchards but due to proposed grading and the resulting steep cut slopes adjacent to the Orchard this alignment would not be feasible.
The proposed trails are all following the existing trails to minimize impacts, moving the trails outside of the RPO buffer would also result in greater habitat disturbance.

The Fire Management Zones are also mostly outside of the RPO buffer area, there are 3-4 areas that a portion of Zone 3 (50 feet Non-Irrigated and Thinned Zone) encroaches on the RPO Buffer. This encroachment is minor and the RPO Buffer area is currently completely clear of any vegetation at this time due to ongoing agricultural activity. We have also consulted with the fire district about reducing the width of this fire management zone and this is the minimum requirement allowed by the Fire Chief. The other option considered was to shift the proposed development (trails, roads, homes and park) easterly however this option would result in significant loss of homes (approximately 24 homes) and realignment of roads which was infeasible.

Please let me know if you need any additional information.

Sincerely,

M. H. Shapouri, RCE