written request for formal consultation. During this review process, the Federal agency may engage in planning efforts but may not make any irreversible commitment of resources. Such a commitment could constitute a violation of section 7(d) of the Act.

Federal agencies are required to confer with the Service, pursuant to section 7(a)(4) of the Act, when an agency action is likely to jeopardize the continued existence of any proposed species or result in the destruction or adverse modification of proposed critical habitat (50 CFR 402.10(a)). A request for formal conference must be in writing and should include the same information that would be provided for a request for formal consultation. Conferences can also include discussions between the Service and the Federal agency to identify and resolve potential conflicts between an action and proposed species or proposed critical habitat early in the decision-making process. The Service recommends ways to minimize or avoid adverse effects of the action. These recommendations are advisory because the jeopardy prohibition of section 7(a)(2) of the Act does not apply until the species is listed or the proposed critical habitat is designated. The conference process fulfills the need to inform Federal agencies of possible steps that an agency might take at an early stage to adjust its actions to avoid jeopardizing a proposed species.

When a proposed species or proposed critical habitat may be affected by an action, the lead Federal agency may elect to enter into formal conference with the Service even if the action is not likely to jeopardize or result in the destruction or adverse modification of proposed critical habitat. If the proposed species is listed or the proposed critical habitat is designated after completion of the conference, the Federal agency may ask the Service, in writing, to confirm the conference as a formal consultation. If the Service reviews the proposed action and finds that no significant changes in the action as planned or in the information used during the conference have occurred, the Service will confirm the conference as a formal consultation on the project and no further section 7 consultation will be necessary. Use of the formal conference process in this manner can prevent delays in the event the proposed species is listed or the proposed critical habitat is designated during project development or implementation.

Candidate species are those species presently under review by the Service for consideration for Federal listing. Candidate species should be considered in the planning process because they may become listed or proposed for listing prior to project completion. Preparation of a biological assessment, as described in section 7(c) of the Act, is not required for candidate species. If early evaluation of your project indicates that it is likely to affect a candidate species, you may wish to request technical assistance from this office.

Only listed species receive protection under the Act. However, sensitive species should be considered in the planning process in the event they become listed or proposed for listing prior to project completion. We recommend that you review information in the California Department of Fish and Wildlife's Natural Diversity Data Base. You can contact the California Department of Fish and Wildlife at (916) 324-3812 for information on other sensitive species that may occur in this area.

[\*A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2) (c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.]

#### Attachment(s):

Official Species List

## **Official Species List**

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Ventura Fish And Wildlife Office 2493 Portola Road, Suite B Ventura, CA 93003-7726 (805) 644-1766

## **Project Summary**

Consultation Code: 08EVEN00-2020-SLI-0457

Event Code: 08EVEN00-2020-E-00940

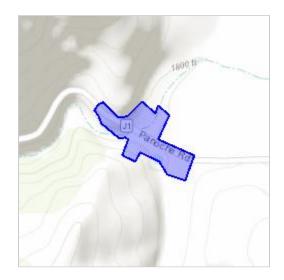
Project Name: Panoche Road Bridge Replacement

Project Type: BRIDGE CONSTRUCTION / MAINTENANCE

Project Description: LSA Project No. QCE2001

#### **Project Location:**

Approximate location of the project can be viewed in Google Maps: <a href="https://www.google.com/maps/place/36.654581489880925N121.06696697876367W">https://www.google.com/maps/place/36.654581489880925N121.06696697876367W</a>



Counties: San Benito, CA

#### **Endangered Species Act Species**

No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/625">https://ecos.fws.gov/ecp/species/625</a>

There is a total of 7 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries<sup>1</sup>, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

1. <u>NOAA Fisheries</u>, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

#### **Birds**

NAME	STATUS
California Condor <i>Gymnogyps californianus</i> Population: U.S.A. only, except where listed as an experimental population  There is <b>final</b> critical habitat for this species. Your location is outside the critical habitat.  Species profile: <a href="https://ecos.fws.gov/ecp/species/8193">https://ecos.fws.gov/ecp/species/8193</a>	Endangered
Least Bell's Vireo <i>Vireo bellii pusillus</i> There is <b>final</b> critical habitat for this species. Your location is outside the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/5945">https://ecos.fws.gov/ecp/species/5945</a>	Endangered
Southwestern Willow Flycatcher <i>Empidonax traillii extimus</i> There is <b>final</b> critical habitat for this species. Your location is outside the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/6749">https://ecos.fws.gov/ecp/species/6749</a>	Endangered
Reptiles	
NAME	STATUS
Blunt-nosed Leopard Lizard Gambelia silus	Endangered

#### **Amphibians**

NAME STATUS

California Red-legged Frog Rana draytonii

Threatened

There is **final** critical habitat for this species. Your location overlaps the critical habitat.

Species profile: <a href="https://ecos.fws.gov/ecp/species/2891">https://ecos.fws.gov/ecp/species/2891</a>

#### **Crustaceans**

NAME STATUS

Vernal Pool Fairy Shrimp Branchinecta lynchi

Threatened

There is **final** critical habitat for this species. Your location is outside the critical habitat.

Species profile: <a href="https://ecos.fws.gov/ecp/species/498">https://ecos.fws.gov/ecp/species/498</a>

#### **Flowering Plants**

NAME STATUS

Marsh Sandwort Arenaria paludicola

Endangered

No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/2229">https://ecos.fws.gov/ecp/species/2229</a>

#### **Critical habitats**

There is 1 critical habitat wholly or partially within your project area under this office's jurisdiction.

NAME

California Red-legged Frog Rana draytonii

Final

https://ecos.fws.gov/ecp/species/2891#crithab



#### **Selected Elements by Scientific Name**

## California Department of Fish and Wildlife California Natural Diversity Database



**Query Criteria:** 

Quad<span style='color:Red'> IS </span>(Quien Sabe Valley (3612172)<span style='color:Red'> OR </span>Ruby Canyon (3612171)<span style='color:Red'> OR </span>Cherry Peak (3612162)<span style='color:Red'> OR </span>Cherry Peak (3612162)<span style='color:Red'> OR </span>Cerro Colorado (3612068)<span style='color:Red'> OR </span>Bickmore Canyon (3612152)<span style='color:Red'> OR </span>San Benito (3612151)<span style='color:Red'> OR </span>Lanada (3612058))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Accipiter cooperii	ABNKC12040	None	None	G5	S4	WL
Cooper's hawk						
Ambystoma californiense	AAAAA01180	Threatened	Threatened	G2G3	S2S3	WL
California tiger salamander						
Ammospermophilus nelsoni Nelson's antelope squirrel	AMAFB04040	None	Threatened	G2	S2S3	
Anniella pulchra northern California legless lizard	ARACC01020	None	None	G3	S3	SSC
Asio otus	ABNSB13010	None	None	G5	S3?	SSC
long-eared owl						
Athene cunicularia burrowing owl	ABNSB10010	None	None	G4	S3	SSC
Bombus caliginosus	IIHYM24380	None	None	G4?	S1S2	
obscure bumble bee						
Branchinecta lynchi	ICBRA03030	Threatened	None	G3	<b>S</b> 3	
vernal pool fairy shrimp						
Calicina arida San Benito harvestman	ILARAU8010	None	None	G1	S1	
Campanula exigua chaparral harebell	PDCAM020A0	None	None	G2	S2	1B.2
Charadrius montanus mountain plover	ABNNB03100	None	None	G3	S2S3	SSC
Chorizanthe biloba var. immemora Hernandez spineflower	PDPGN04025	None	None	G3T1T2	S1S2	1B.2
Corynorhinus townsendii Townsend's big-eared bat	AMACC08010	None	None	G3G4	S2	SSC
<b>Delphinium californicum ssp. interius</b> Hospital Canyon larkspur	PDRAN0B0A2	None	None	G3T3	S3	1B.2
Delphinium recurvatum recurved larkspur	PDRAN0B1J0	None	None	G2?	S2?	1B.2
Dipodomys venustus elephantinus big-eared kangaroo rat	AMAFD03041	None	None	G4T2	S2	SSC
Elanus leucurus white-tailed kite	ABNKC06010	None	None	G5	S3S4	FP
Emys marmorata western pond turtle	ARAAD02030	None	None	G3G4	S3	SSC



### **Selected Elements by Scientific Name**

# California Department of Fish and Wildlife California Natural Diversity Database



Overtice	<b></b>	Full 16: :	04-1 04 1		0(=( 5 :	Rare Plant Rank/CDFW
Species	Element Code	Federal Status	State Status	Global Rank	State Rank	SSC or FP
Eriogonum heermannii var. occidentale western Heermann's buckwheat	PDPGN082P6	None	None	G5T2	S2	1B.2
Eriogonum nortonii	PDPGN08470	None	None	G2	S2	1B.3
Pinnacles buckwheat						
Falco mexicanus	ABNKD06090	None	None	G5	S4	WL
prairie falcon					-	
Falco peregrinus anatum	ABNKD06071	Delisted	Delisted	G4T4	S3S4	FP
American peregrine falcon						
Gambelia sila	ARACF07010	Endangered	Endangered	G1	S1	FP
blunt-nosed leopard lizard		3	3	_	-	
Lagophylla diabolensis	PDAST5J060	None	None	G2	S2	1B.2
Diablo Range hare-leaf				-		
Layia munzii	PDAST5N0B0	None	None	G2	S2	1B.2
Munz's tidy-tips				-		
Lepidium jaredii ssp. album	PDBRA1M0G2	None	None	G2G3T2T3	S2S3	1B.2
Panoche pepper-grass						
Lepidurus packardi	ICBRA10010	Endangered	None	G4	S3S4	
vernal pool tadpole shrimp		3				
Madia radiata	PDAST650E0	None	None	G3	S3	1B.1
showy golden madia				G3 G5T2T3	\$3 \$2?	
Malacothamnus aboriginum	PDMAL0Q020	None	None			1B.2
Indian Valley bush-mallow						
Masticophis flagellum ruddocki	ARADB21021	None	None			SSC
San Joaquin coachwhip		None None				
Navarretia nigelliformis ssp. radians	PDPLM0C0J2	None	None	G4T2	S2	1B.2
shining navarretia						
Navarretia panochensis	PDPLM0C220	None	None	G3	S3	1B.3
Panoche navarretia						
Nemacladus secundiflorus var. robbinsii	PDCAM0F0B2	None	None	G3T2	S2	1B.2
Robbins' nemacladus						
North Central Coast Drainage Sacramento Sucker/Roach River	CARA2623CA	None	None	GNR	SNR	
North Central Coast Drainage Sacramento Sucker/Roach River						
Onychomys torridus tularensis	AMAFF06021	None	None	G5T1T2	S1S2	SSC
Tulare grasshopper mouse						
Optioservus canus	IICOL5E020	None	None	G1	S1	
Pinnacles optioservus riffle beetle						
Phrynosoma blainvillii	ARACF12100	None	None	G3G4	S3S4	SSC
coast horned lizard						
Rana boylii	AAABH01050	None	Candidate	G3	S3	SSC
foothill yellow-legged frog			Threatened			
Rana draytonii	AAABH01022	Threatened	None	G2G3	S2S3	SSC
California red-legged frog						



### **Selected Elements by Scientific Name**

# California Department of Fish and Wildlife California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Senecio aphanactis chaparral ragwort	PDAST8H060	None	None	G3	S2	2B.2
Spea hammondii western spadefoot	AAABF02020	None	None	G3	S3	SSC
Streptanthus insignis ssp. lyonii Arburua Ranch jewelflower	PDBRA2G0Q1	None	None	G3G4T2	S2	1B.2
Vulpes macrotis mutica San Joaquin kit fox	AMAJA03041	Endangered	Threatened	G4T2	S2	

**Record Count: 43** 



\*The database used to provide updates to the Online Inventory is under construction. View updates and changes made since May 2019 here.

#### **Plant List**

29 matches found. Click on scientific name for details

#### Search Criteria

Found in Quads 3612172, 3612171, 3612078, 3612162, 3612161, 3612068, 3612152 3612151 and 3612058;

#### Modify Search Criteria Export to Excel Modify Columns Modify Sort Modi

				Blooming	CA Rare Plant	State	Global
Scientific Name	Common Name	Family	Lifeform	Period	Rank	Rank	Rank
Acanthomintha lanceolata	Santa Clara thorn-mint	Lamiaceae	annual herb	Mar-Jun	4.2	S4	G4
Acanthomintha obovata ssp. obovata	San Benito thorn-mint	Lamiaceae	annual herb	Apr-Jul	4.2	S3S4	G4T3T4
Allium howellii var. howellii	Howell's onion	Alliaceae	perennial bulbiferous herb	Mar-Apr	4.3	S3	G3G4T3
Androsace elongata ssp. acuta	California androsace	Primulaceae	annual herb	Mar-Jun	4.2	S3S4	G5? T3T4
Astragalus macrodon	Salinas milk-vetch	Fabaceae	perennial herb	Apr-Jul	4.3	S4	G4
Benitoa occidentalis	western lessingia	Asteraceae	annual herb	May-Nov	4.3	S3S4	G3G4
Calystegia collina ssp. venusta	South Coast Range morning-glory	Convolvulaceae	perennial rhizomatous herb	Apr-Jun	4.3	S4	G4T4
Camissonia benitensis	San Benito evening- primrose	Onagraceae	annual herb	Apr-Jun	1B.1	S2	G2
<u>Campanula exigua</u>	chaparral harebell	Campanulaceae	annual herb	May-Jun	1B.2	S2	G2
Chorizanthe biloba var. immemora	Hernandez spineflower	Polygonaceae	annual herb	May-Aug(Sep)	1B.2	S1S2	G3T1T2
Chorizanthe douglasii	Douglas' spineflower	Polygonaceae	annual herb	Apr-Jul	4.3	S4	G4
Clarkia breweri	Brewer's clarkia	Onagraceae	annual herb	Apr-Jun	4.2	S4	G4
Clarkia lewisii	Lewis' clarkia	Onagraceae	annual herb	May-Jul	4.3	S4	G4
Cryptantha rattanii	Rattan's cryptantha	Boraginaceae	annual herb	Apr-Jul	4.3	S4	G4
<u>Delphinium californicum ssp.</u> <u>interius</u>	Hospital Canyon larkspur	Ranunculaceae	perennial herb	Apr-Jun	1B.2	S3	G3T3
Delphinium recurvatum	recurved larkspur	Ranunculaceae	perennial herb	Mar-Jun	1B.2	S2?	G2?
Eriogonum elegans	elegant wild buckwheat	Polygonaceae	annual herb	May-Nov	4.3	S4S5	G4G5
Eriogonum heermannii var. occidentale	western Heermann's buckwheat	Polygonaceae	perennial deciduous shrub	Jul-Oct	1B.2	S2	G5T2
Eriogonum nortonii	Pinnacles buckwheat	Polygonaceae	annual herb	(Apr)May- Aug(Sep)	1B.3	S2	G2
Lagophylla diabolensis	Diablo Range hare-leaf	Asteraceae	annual herb	Apr-Sep	1B.2	S2	G2
Madia radiata	showy golden madia	Asteraceae	annual herb	Mar-May	1B.1	S3	G3
Malacothamnus aboriginum	Indian Valley bush-mallow	Malvaceae	perennial deciduous shrub	Apr-Oct	1B.2	S3	G3
Microseris paludosa	marsh microseris	Asteraceae	perennial herb	Apr-Jun(Jul)	1B.2	S2	G2
Navarretia nigelliformis ssp. nigelliformis	adobe navarretia	Polemoniaceae	annual herb	Apr-Jun	4.2	S3	G4T3
	shining navarretia	Polemoniaceae	annual herb	(Mar)Apr-Jul	1B.2	S2	G4T2

## Navarretia nigelliformis ssp. radians

Nemacladus secundiflorus var. robbinsii	Robbins' nemacladus	Campanulaceae	annual herb	Apr-Jun	1B.2	S2	G3T2
Plagiobothrys uncinatus	hooked popcornflower	Boraginaceae	annual herb	Apr-May	1B.2	S2	G2
Senecio aphanactis	chaparral ragwort	Asteraceae	annual herb	Jan-Apr(May)	2B.2	S2	G3
Streptanthus insignis ssp. lyonii	Arburua Ranch jewelflower	Brassicaceae	annual herb	Mar-May	1B.2	S2	G3G4T2

#### **Suggested Citation**

California Native Plant Society, Rare Plant Program. 2020. Inventory of Rare and Endangered Plants of California (online edition, v8-03 0.39). Website http://www.rareplants.cnps.org [accessed 01 June 2020].

CalPhotos

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Contributors

The Calflora Database
The California Lichen Society
California Natural Diversity Database
The Jepson Flora Project
The Consortium of California Herbaria

Questions and Comments rareplants@cnps.org

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From: NMFSWCRCA Specieslist - NOAA Service Account

To: Anna Van Zuuk

Subject: Re: Caltrans District 5; Panoche Road Bridge Replacement at Tres Pinos Creek

**Date:** Monday, June 1, 2020 6:20:05 PM

Receipt of this message confirms that NMFS has received your email to <a href="mailto:nmfswcrca.specieslist@noaa.gov">nmfswcrca.specieslist@noaa.gov</a>. If you are a federal agency (or representative) and have followed the steps outlined on the California Species List Tools web page (<a href="http://www.westcoast.fisheries.noaa.gov/maps\_data/california\_species\_list\_tools.html">http://www.westcoast.fisheries.noaa.gov/maps\_data/california\_species\_list\_tools.html</a>), you have generated an official Endangered Species Act species list.

Messages sent to this email address are not responded to directly. For project specific questions, please contact your local NMFS office.

Northern California/Klamath (Arcata) 707-822-7201

North-Central Coast (Santa Rosa) 707-387-0737

Southern California (Long Beach) 562-980-4000

California Central Valley (Sacramento) 916-930-3600

From: Anna Van Zuuk

To: <u>"nmfswcrca.specieslist@noaa.gov"</u>

**Subject:** Caltrans District 5; Panoche Road Bridge Replacement at Tres Pinos Creek

**Date:** Monday, June 1, 2020 6:19:00 PM

Attachments: <u>image001.png</u>

Federal agency name and address:

California Department of Transportation – District 5

50 Higuera Street

San Luis Obispo, CA 93401-5415

Info-d5@dt.ca.gov

(805) 549-3111

Non-federal agency (Project Proponent):

Deems Katada

San Benito County Department of Public Works

2301 Technology Parkway

Hollister, CA 95023

DKatada@cosb.us

(831) 636-4170

Point-of-contact:

Anna Van Zuuk, Biologist/Botanist

Anna.VanZuuk@lsa.net

(916) 844-2983

Quad Name **Quien Sabe Valley** 

Quad Number **36121-G2** 

#### **ESA Anadromous Fish**

SONCC Coho ESU (T) -

CCC Coho ESU (E) -

CC Chinook Salmon ESU (T) -

CVSR Chinook Salmon ESU (T) -

SRWR Chinook Salmon ESU (E) -

NC Steelhead DPS (T) -

CCC Steelhead DPS (T) -

SCCC Steelhead DPS (T) - X

SC Steelhead DPS (E) -

CCV Steelhead DPS (T) -

Eulachon (T) -

sDPS Green Sturgeon (T) -

#### **ESA Anadromous Fish Critical Habitat**

SONCC Coho Critical Habitat -

CCC Coho Critical Habitat -

CC Chinook Salmon Critical Habitat -

CVSR Chinook Salmon Critical Habitat -

SRWR Chinook Salmon Critical Habitat -

NC Steelhead Critical Habitat -

CCC Steelhead Critical Habitat -

SCCC Steelhead Critical Habitat -

SC Steelhead Critical Habitat -

CCV Steelhead Critical Habitat -

**Eulachon Critical Habitat -**

sDPS Green Sturgeon Critical Habitat -

#### **ESA Marine Invertebrates**

Range Black Abalone (E) -

Range White Abalone (E) -

#### **ESA Marine Invertebrates Critical Habitat**

Black Abalone Critical Habitat -

#### **ESA Sea Turtles**

East Pacific Green Sea Turtle (T) -

Olive Ridley Sea Turtle (T/E) -

Leatherback Sea Turtle (E) -

North Pacific Loggerhead Sea Turtle (E) -

#### **ESA Whales**

Blue Whale (E) -

Fin Whale (E) -

Humpback Whale (E) -

Southern Resident Killer Whale (E) -

North Pacific Right Whale (E) -

Sei Whale (E) -

Sperm Whale (E) -

#### ESA Pinnipeds

Guadalupe Fur Seal (T) -

Steller Sea Lion Critical Habitat -

#### **Essential Fish Habitat**

Coho EFH -

Chinook Salmon EFH -

Groundfish EFH -

Coastal Pelagics EFH -

Highly Migratory Species EFH -

#### MMPA Species (See list at left)

# ESA and MMPA Cetaceans/Pinnipeds See list at left and consult the NMFS Long Beach office 562-980-4000

MMPA Cetaceans -

MMPA Pinnipeds -

Quad Name Ruby Canyon

Quad Number **36121-G1** 

#### **ESA Anadromous Fish**

SONCC Coho ESU (T) -

CCC Coho ESU (E) -

CC Chinook Salmon ESU (T) -

CVSR Chinook Salmon ESU (T) -

SRWR Chinook Salmon ESU (E) -

NC Steelhead DPS (T) -

CCC Steelhead DPS (T) -

SCCC Steelhead DPS (T) - X

SC Steelhead DPS (E) -

CCV Steelhead DPS (T) -

Eulachon (T) -

sDPS Green Sturgeon (T) -

#### **ESA Anadromous Fish Critical Habitat**

SONCC Coho Critical Habitat -

CCC Coho Critical Habitat -

CC Chinook Salmon Critical Habitat -

CVSR Chinook Salmon Critical Habitat -

SRWR Chinook Salmon Critical Habitat -

NC Steelhead Critical Habitat -

CCC Steelhead Critical Habitat -

SCCC Steelhead Critical Habitat -

SC Steelhead Critical Habitat -

CCV Steelhead Critical Habitat -

**Eulachon Critical Habitat -**

sDPS Green Sturgeon Critical Habitat -

#### **ESA Marine Invertebrates**

Range Black Abalone (E) -

Range White Abalone (E) -

#### **ESA Marine Invertebrates Critical Habitat**

Black Abalone Critical Habitat -

#### **ESA Sea Turtles**

East Pacific Green Sea Turtle (T) -

Olive Ridley Sea Turtle (T/E) -

Leatherback Sea Turtle (E) -

North Pacific Loggerhead Sea Turtle (E) -

#### **ESA Whales**

Blue Whale (E) -

Fin Whale (E) -

Humpback Whale (E) -

Southern Resident Killer Whale (E) -

North Pacific Right Whale (E) -

Sei Whale (E) -

Sperm Whale (E) -

#### **ESA Pinnipeds**

Guadalupe Fur Seal (T) -

Steller Sea Lion Critical Habitat -

#### **Essential Fish Habitat**

Coho EFH -

Chinook Salmon EFH -

Groundfish EFH -

Coastal Pelagics EFH -

Highly Migratory Species EFH -

#### MMPA Species (See list at left)

#### **ESA and MMPA Cetaceans/Pinnipeds**

See list at left and consult the NMFS Long Beach office 562-980-4000

MMPA Cetaceans -

MMPA Pinnipeds -

Quad Name Ortigalita Peak

Quad Number **36120-G8** 

#### **ESA Anadromous Fish**

SONCC Coho ESU (T) -

CCC Coho ESU (E) -

CC Chinook Salmon ESU (T) -

CVSR Chinook Salmon ESU (T) -

SRWR Chinook Salmon ESU (E) -

NC Steelhead DPS (T) -

CCC Steelhead DPS (T) -

SCCC Steelhead DPS (T) - X

SC Steelhead DPS (E) -

CCV Steelhead DPS (T) - X

Eulachon (T) -

sDPS Green Sturgeon (T) -

#### **ESA Anadromous Fish Critical Habitat**

SONCC Coho Critical Habitat -

CCC Coho Critical Habitat -

CC Chinook Salmon Critical Habitat -

CVSR Chinook Salmon Critical Habitat -

SRWR Chinook Salmon Critical Habitat -

NC Steelhead Critical Habitat -

CCC Steelhead Critical Habitat -

SCCC Steelhead Critical Habitat -

SC Steelhead Critical Habitat -

CCV Steelhead Critical Habitat -

**Eulachon Critical Habitat -**

sDPS Green Sturgeon Critical Habitat -

#### **ESA Marine Invertebrates**

Range Black Abalone (E) -

Range White Abalone (E) -

#### **ESA Marine Invertebrates Critical Habitat**

Black Abalone Critical Habitat -

#### **ESA Sea Turtles**

East Pacific Green Sea Turtle (T) -

Olive Ridley Sea Turtle (T/E) -

Leatherback Sea Turtle (E) -

North Pacific Loggerhead Sea Turtle (E) -

#### **ESA Whales**

Blue Whale (E) -

Fin Whale (E) -

Humpback Whale (E) -

Southern Resident Killer Whale (E) -

North Pacific Right Whale (E) -

Sei Whale (E) -

Sperm Whale (E) -

#### **ESA Pinnipeds**

Guadalupe Fur Seal (T) -

Steller Sea Lion Critical Habitat -

#### **Essential Fish Habitat**

Coho EFH -

Chinook Salmon EFH -

Groundfish EFH -

Coastal Pelagics EFH -

Highly Migratory Species EFH -

#### MMPA Species (See list at left)

#### **ESA and MMPA Cetaceans/Pinnipeds**

See list at left and consult the NMFS Long Beach office 562-980-4000

X

MMPA Cetaceans -

MMPA Pinnipeds -

Quad Name Cherry Peak

Quad Number 36121-F2

#### **ESA Anadromous Fish**

SONCC Coho ESU (T) -

CCC Coho ESU (E) -

CC Chinook Salmon ESU (T) -

CVSR Chinook Salmon ESU (T) -

SRWR Chinook Salmon ESU (E) -

NC Steelhead DPS (T) -

CCC Steelhead DPS (T) -

SCCC Steelhead DPS (T) -

SC Steelhead DPS (E) -

CCV Steelhead DPS (T) -

Eulachon (T) -

sDPS Green Sturgeon (T) -

#### **ESA Anadromous Fish Critical Habitat**

SONCC Coho Critical Habitat -

CCC Coho Critical Habitat -

CC Chinook Salmon Critical Habitat -

CVSR Chinook Salmon Critical Habitat -

SRWR Chinook Salmon Critical Habitat -

NC Steelhead Critical Habitat -

CCC Steelhead Critical Habitat -

SCCC Steelhead Critical Habitat -

X

SC Steelhead Critical Habitat -

CCV Steelhead Critical Habitat -

**Eulachon Critical Habitat -**

sDPS Green Sturgeon Critical Habitat -

#### **ESA Marine Invertebrates**

Range Black Abalone (E) -

Range White Abalone (E) -

#### **ESA Marine Invertebrates Critical Habitat**

Black Abalone Critical Habitat -

#### **ESA Sea Turtles**

East Pacific Green Sea Turtle (T) -

Olive Ridley Sea Turtle (T/E) -

Leatherback Sea Turtle (E) -

North Pacific Loggerhead Sea Turtle (E) -

#### **ESA Whales**

Blue Whale (E) -

Fin Whale (E) -

Humpback Whale (E) -

Southern Resident Killer Whale (E) -

North Pacific Right Whale (E) -

Sei Whale (E) -

Sperm Whale (E) -

#### **ESA Pinnipeds**

Guadalupe Fur Seal (T) -

Steller Sea Lion Critical Habitat -

#### **Essential Fish Habitat**

Coho EFH -

Chinook Salmon EFH -

Groundfish EFH -

Coastal Pelagics EFH -

Highly Migratory Species EFH -

#### MMPA Species (See list at left)

# ESA and MMPA Cetaceans/Pinnipeds See list at left and consult the NMFS Long Beach office 562-980-4000

MMPA Cetaceans -

MMPA Pinnipeds -

Quad Name Panoche Pass

Quad Number **36121-F1** 

#### **ESA Anadromous Fish**

SONCC Coho ESU (T) -

CCC Coho ESU (E) -

CC Chinook Salmon ESU (T) -

CVSR Chinook Salmon ESU (T) -

SRWR Chinook Salmon ESU (E) -

NC Steelhead DPS (T) -

CCC Steelhead DPS (T) -

SCCC Steelhead DPS (T) - X

SC Steelhead DPS (E) -

CCV Steelhead DPS (T) -

Eulachon (T) -

sDPS Green Sturgeon (T) -

#### **ESA Anadromous Fish Critical Habitat**

SONCC Coho Critical Habitat -

CCC Coho Critical Habitat -

CC Chinook Salmon Critical Habitat -

CVSR Chinook Salmon Critical Habitat -

SRWR Chinook Salmon Critical Habitat -

NC Steelhead Critical Habitat -

CCC Steelhead Critical Habitat -

SCCC Steelhead Critical Habitat -

SC Steelhead Critical Habitat -

CCV Steelhead Critical Habitat -

**Eulachon Critical Habitat -**

sDPS Green Sturgeon Critical Habitat -

#### **ESA Marine Invertebrates**

Range Black Abalone (E) -

Range White Abalone (E) -

#### **ESA Marine Invertebrates Critical Habitat**

Black Abalone Critical Habitat -

#### **ESA Sea Turtles**

East Pacific Green Sea Turtle (T) -

Olive Ridley Sea Turtle (T/E) -

Leatherback Sea Turtle (E) -

North Pacific Loggerhead Sea Turtle (E) -

#### **ESA Whales**

Blue Whale (E) -

Fin Whale (E) -

Humpback Whale (E) -

Southern Resident Killer Whale (E) -

North Pacific Right Whale (E) -

Sei Whale (E) -

Sperm Whale (E) -

#### **ESA Pinnipeds**

Guadalupe Fur Seal (T) -

Steller Sea Lion Critical Habitat -

#### **Essential Fish Habitat**

Coho EFH -

Chinook Salmon EFH -

Groundfish EFH -

Coastal Pelagics EFH -

Highly Migratory Species EFH -

#### MMPA Species (See list at left)

#### **ESA and MMPA Cetaceans/Pinnipeds**

See list at left and consult the NMFS Long Beach office 562-980-4000

MMPA Cetaceans -

MMPA Pinnipeds -

Quad Name Cerro Colorado

Quad Number **36120-F8** 

#### **ESA Anadromous Fish**

SONCC Coho ESU (T) -

CCC Coho ESU (E) -

CC Chinook Salmon ESU (T) -

CVSR Chinook Salmon ESU (T) -

SRWR Chinook Salmon ESU (E) -

NC Steelhead DPS (T) -

CCC Steelhead DPS (T) -

SCCC Steelhead DPS (T) - X

SC Steelhead DPS (E) -

CCV Steelhead DPS (T) - X

Eulachon (T) -

sDPS Green Sturgeon (T) -

#### **ESA Anadromous Fish Critical Habitat**

SONCC Coho Critical Habitat -

CCC Coho Critical Habitat -

CC Chinook Salmon Critical Habitat -

CVSR Chinook Salmon Critical Habitat -

SRWR Chinook Salmon Critical Habitat -

NC Steelhead Critical Habitat -

CCC Steelhead Critical Habitat -

SCCC Steelhead Critical Habitat -

SC Steelhead Critical Habitat -

CCV Steelhead Critical Habitat -

**Eulachon Critical Habitat -**

sDPS Green Sturgeon Critical Habitat -

#### **ESA Marine Invertebrates**

Range Black Abalone (E) -

Range White Abalone (E) -

#### **ESA Marine Invertebrates Critical Habitat**

Black Abalone Critical Habitat -

#### **ESA Sea Turtles**

East Pacific Green Sea Turtle (T) -

Olive Ridley Sea Turtle (T/E) -

Leatherback Sea Turtle (E) -

North Pacific Loggerhead Sea Turtle (E) -

#### **ESA Whales**

Blue Whale (E) -

Fin Whale (E) -

Humpback Whale (E) -

Southern Resident Killer Whale (E) -

North Pacific Right Whale (E) -

Sei Whale (E) -

Sperm Whale (E) -

#### **ESA Pinnipeds**

Guadalupe Fur Seal (T) -

Steller Sea Lion Critical Habitat -

#### **Essential Fish Habitat**

Coho EFH -

Chinook Salmon EFH -

Groundfish EFH -

Coastal Pelagics EFH -

Highly Migratory Species EFH -

#### MMPA Species (See list at left)

#### **ESA and MMPA Cetaceans/Pinnipeds**

See list at left and consult the NMFS Long Beach office 562-980-4000

MMPA Cetaceans -

MMPA Pinnipeds -

Quad Name **Bickmore Canyon** 

Quad Number 36121-E2

#### **ESA Anadromous Fish**

SONCC Coho ESU (T) -

CCC Coho ESU (E) -

CC Chinook Salmon ESU (T) -

CVSR Chinook Salmon ESU (T) -

SRWR Chinook Salmon ESU (E) -

NC Steelhead DPS (T) -

CCC Steelhead DPS (T) -

SCCC Steelhead DPS (T) - X

SC Steelhead DPS (E) -

CCV Steelhead DPS (T) -

Eulachon (T) -

sDPS Green Sturgeon (T) -

#### **ESA Anadromous Fish Critical Habitat**

SONCC Coho Critical Habitat -

CCC Coho Critical Habitat -

CC Chinook Salmon Critical Habitat -

CVSR Chinook Salmon Critical Habitat -

SRWR Chinook Salmon Critical Habitat -

NC Steelhead Critical Habitat -

CCC Steelhead Critical Habitat -

SCCC Steelhead Critical Habitat -

X

SC Steelhead Critical Habitat -

CCV Steelhead Critical Habitat -

**Eulachon Critical Habitat -**

sDPS Green Sturgeon Critical Habitat -

#### **ESA Marine Invertebrates**

Range Black Abalone (E) -

Range White Abalone (E) -

#### **ESA Marine Invertebrates Critical Habitat**

Black Abalone Critical Habitat -

#### **ESA Sea Turtles**

East Pacific Green Sea Turtle (T) -

Olive Ridley Sea Turtle (T/E) -

Leatherback Sea Turtle (E) -

North Pacific Loggerhead Sea Turtle (E) -

#### **ESA Whales**

Blue Whale (E) -

Fin Whale (E) -

Humpback Whale (E) -

Southern Resident Killer Whale (E) -

North Pacific Right Whale (E) -

Sei Whale (E) -

Sperm Whale (E) -

#### **ESA Pinnipeds**

Guadalupe Fur Seal (T) -

Steller Sea Lion Critical Habitat -

#### **Essential Fish Habitat**

Coho EFH -

Chinook Salmon EFH -

Groundfish EFH -

Coastal Pelagics EFH -

Highly Migratory Species EFH -

#### MMPA Species (See list at left)

# ESA and MMPA Cetaceans/Pinnipeds See list at left and consult the NMFS Long Beach office 562-980-4000

MMPA Cetaceans - MMPA Pinnipeds -

Quad Name San Benito

Quad Number **36121-E1** 

#### **ESA Anadromous Fish**

SONCC Coho ESU (T) -

CCC Coho ESU (E) -

CC Chinook Salmon ESU (T) -

CVSR Chinook Salmon ESU (T) -

SRWR Chinook Salmon ESU (E) -

NC Steelhead DPS (T) -

CCC Steelhead DPS (T) -

SCCC Steelhead DPS (T) - X

SC Steelhead DPS (E) -

CCV Steelhead DPS (T) -

Eulachon (T) -

sDPS Green Sturgeon (T) -

#### **ESA Anadromous Fish Critical Habitat**

SONCC Coho Critical Habitat -

CCC Coho Critical Habitat -

CC Chinook Salmon Critical Habitat -

CVSR Chinook Salmon Critical Habitat -

SRWR Chinook Salmon Critical Habitat -

NC Steelhead Critical Habitat -

CCC Steelhead Critical Habitat -

SCCC Steelhead Critical Habitat - X

SC Steelhead Critical Habitat -

CCV Steelhead Critical Habitat -

**Eulachon Critical Habitat -**

sDPS Green Sturgeon Critical Habitat -

#### **ESA Marine Invertebrates**

Range Black Abalone (E) -

Range White Abalone (E) -

#### **ESA Marine Invertebrates Critical Habitat**

Black Abalone Critical Habitat -

#### **ESA Sea Turtles**

East Pacific Green Sea Turtle (T) -

Olive Ridley Sea Turtle (T/E) -

Leatherback Sea Turtle (E) -

North Pacific Loggerhead Sea Turtle (E) -

#### **ESA Whales**

Blue Whale (E) -

Fin Whale (E) -

Humpback Whale (E) -

Southern Resident Killer Whale (E) -

North Pacific Right Whale (E) -

Sei Whale (E) -

Sperm Whale (E) -

#### **ESA Pinnipeds**

Guadalupe Fur Seal (T) -

Steller Sea Lion Critical Habitat -

#### **Essential Fish Habitat**

Coho EFH -

Chinook Salmon EFH -

Groundfish EFH -

Coastal Pelagics EFH -

Highly Migratory Species EFH -

#### MMPA Species (See list at left)

#### **ESA and MMPA Cetaceans/Pinnipeds**

See list at left and consult the NMFS Long Beach office 562-980-4000

MMPA Cetaceans -

MMPA Pinnipeds -

Quad Name Llanada

Quad Number **36120-E8** 

#### **ESA Anadromous Fish**

SONCC Coho ESU (T) -

CCC Coho ESU (E) -

CC Chinook Salmon ESU (T) -

CVSR Chinook Salmon ESU (T) -

SRWR Chinook Salmon ESU (E) -

NC Steelhead DPS (T) -

CCC Steelhead DPS (T) -

SCCC Steelhead DPS (T) - X

SC Steelhead DPS (E) -

CCV Steelhead DPS (T) - X

Eulachon (T) -

sDPS Green Sturgeon (T) -

#### **ESA Anadromous Fish Critical Habitat**

SONCC Coho Critical Habitat -

CCC Coho Critical Habitat -

CC Chinook Salmon Critical Habitat -

CVSR Chinook Salmon Critical Habitat -

SRWR Chinook Salmon Critical Habitat -

NC Steelhead Critical Habitat -

CCC Steelhead Critical Habitat -

SCCC Steelhead Critical Habitat -

SC Steelhead Critical Habitat -

CCV Steelhead Critical Habitat -

**Eulachon Critical Habitat -**

sDPS Green Sturgeon Critical Habitat -

#### **ESA Marine Invertebrates**

Range Black Abalone (E) -

Range White Abalone (E) -

#### **ESA Marine Invertebrates Critical Habitat**

Black Abalone Critical Habitat -

#### **ESA Sea Turtles**

East Pacific Green Sea Turtle (T) -

Olive Ridley Sea Turtle (T/E) -

Leatherback Sea Turtle (E) -

North Pacific Loggerhead Sea Turtle (E) -

#### **ESA Whales**

Blue Whale (E) -

Fin Whale (E) -

Humpback Whale (E) -

Southern Resident Killer Whale (E) -

North Pacific Right Whale (E) -

Sei Whale (E) -

Sperm Whale (E) -

#### **ESA Pinnipeds**

Guadalupe Fur Seal (T) -

Steller Sea Lion Critical Habitat -

#### **Essential Fish Habitat**

Coho EFH -

Chinook Salmon EFH -

Groundfish EFH -

Coastal Pelagics EFH -

Highly Migratory Species EFH -

#### **MMPA Species (See list at left)**

#### **ESA and MMPA Cetaceans/Pinnipeds**

See list at left and consult the NMFS Long Beach office 562-980-4000

MMPA Cetaceans -

MMPA Pinnipeds -

Anna Van Zuuk | Biologist/Botanist ISA Certified Arborist, WE-12612A LSA | 201 Creekside Ridge Court, Suite 250 Roseville, CA 95678

916-772-7450 Roseville Office 916-844-2983 Direct Line 530-320-2304 Mobile

**Website** 



## **Appendix C** Wetland Data Sheets

NES September 2021

## WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Panache Road Brids	<u> </u>	City/Cour	م ماری:ک	Benito	Sampling Date:	7/6/2011
Applicant/Owner: San Benito Count	<b>N</b>			State: CA	Sampling Point	1
investigator(s): Mike Trueblood		Section,	Township, R	ange:		
Landform (hilistope, terrace, etc.):		Local rei	lef (concave	. convex. none):	Sign	ne (%):
Subregion (LRR):	Lat:			Long:	Dotu	pe (/e)
Soil Map Unit Name:						
Are climatic / hydrologic conditions on the site typical for						
Are Vegetation, Soil, or Hydrology				"Normal Circumstances"	•	/
Are Vegetation, Soil, or Hydrology				eeded, explain any answ		No
SUMMARY OF FINDINGS - Attach site ma			•			atures, etc.
	No					
			the Sample			
1 140 14 14 1 1 1 1 1 1 1 1 1 1 1 1 1 1		wi	thin a Wetla	nd? Yes <u>V</u>	No	
Remarks:				· · · · · · · · · · · · · · · · · · ·		
VEGETATION					<del></del>	
VEGETATION			<del></del>			
Tree Stratum (Use scientific names.)	Absolute % Cover	Domina: Species	nt Indicator ? Status	Dominance Test work		
	80%			Number of Dominant S That Are OBL, FACW,	pecies or FAC: 4	(A)
2. Salix exigue				1		(^)
3				Total Number of Domir Species Across All Stra		(B)
4				·		(0)
Total Cove	er: 10014			Percent of Dominant S That Are OBL, FACW,	pecies or FAC: loc	1/a (A/B)
1. Bacharis salisifolia	0,	V	6			(140)
2.				Prevalence Index wor		
3.				Total % Cover of: OBL species		by;
4.				FACW species		
5				FAC species	^2 =	
Total Cove	er: 10%			FACU species		
Herb Stratum	10%		_	UPL species		
1. Polypegen menspeliensis		N/S	Fur	Column Totals:		
2. Corporus arayrestis			face	1		ĺ
4. Lydwrgin peploides	_ <del>60 /6</del>	7-95			= B/A =	
				Hydrophytic Vegetation  Dominance Test is		1
5				Prevalence index is		
7				Morphological Ada		upporting
8.				data in Remarks	or on a separate s	heet)
Total Cove	r: 85%			Problematic Hydro	hytic Vegetation¹ (	Explain)
Woody Vine Stratum						
1				<sup>1</sup> Indicators of hydric soil be present.	and wetland hydro	logy must
2						
Total Cover	r:			Hydrophytic Vegetation		
% Bare Ground in Herb Stratum % Cove	r of Biotic Cru	ıst		Present? Yes	No	_
Remarks:						

Depth Matrix	th needed to document the indicator or Redox Features		•9
(inches) Color (moist) %	Color (moist) % Type1	oc² Texture	Remarks
0-911			K/ CLOSE CEAH
			CL CLORE CEAN
Type: C=Concentration, D=Depletion, RM=	Reduced Matrix. <sup>2</sup> Location: PL=Pore L	ning, RC=Root Channel, M=Matrix	
Hydric Soll indicators: (Applicable to all L	RRs, unless otherwise noted.)	indicators for Problema	tic Hydric Solis³:
Histosol (At)	Sandy Redox (S5)	1 cm Muck (A9) (LRF	
Histic Epipedon (A2)	Stripped Matrix (S6)	2 cm Muck (A10) (LR	-
Black Histic (A3)	Loamy Mucky Mineral (F1)	Reduced Vertic (F18)	
Hydrogen Sulfide (A4) Stratified Layers (A5) (LRR C)	Loamy Gleyed Matrix (F2)	Red Parent Material (	
1 cm Muck (A9) (LRR D)	Depleted Matrix (F3) Redox Dark Surface (F6)	Other (Explain in Ren	narks)
Depleted Below Dark Surface (A11)	Depieted Dark Surface (F7)		
Thick Dark Surface (A12)	Redox Depressions (F8)		
Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4)	Vernai Pools (F9)	<sup>3</sup> Indicators of hydrophytic wetland hydrology mus	
estrictive Layer (if present):		would hydrology mas	t be present.
Type:		1	
Depth (inches):		Hydric Soli Present? Y	
Pemarks:	se sand riverbottom	<del></del>	
Remarks: Cobble/grave // Coor	se sand riverbotion	<del></del>	
rdrology	se sand riverbottom	no soil robr availa	i ble.
Cobble/grave / Coar  Cobble/grave / Coar  Coronaries  Cobble/grave / Coar  Cobble/grave / Coar  Cobble/grave / Coar		no soil color availe	(2 or more required)
/DROLOGY /etland Hydrology Indicators: rimary Indicators (any one indicator is sufficient		Secondary Indicators  Water Marks (B1	(2 or more required)
POROLOGY  Setiand Hydrology Indicators: rimary Indicators (any one indicator Is sufficiently Surface Water (A1)  High Water Table (A2)	ent)	Secondary Indicators  Water Marks (B1  Sediment Depos	(2 or more required) ) (Riverine) its (B2) (Riverine)
POROLOGY  Vetland Hydrology Indicators:  rimary Indicators (any one indicator is sufficiently Surface Water (A1)  High Water Table (A2)  Saturation (A3)	ent) Sait Crust (B11)	Secondary Indicators  Water Marks (B1  Sediment Depose Drift Deposits (B:	(2 or more required) ) (Riverine) its (B2) (Riverine) 3) (Riverine)
POROLOGY  Vetland Hydrology Indicators: rimary Indicators (any one indicator is sufficiently Surface Water (A1) High Water Table (A2)  Saturation (A3) Water Marks (B1) (Nonriverine)	ent) Sait Crust (B11) Biotic Crust (B12)	Secondary Indicators  Water Marks (B1  Sediment Depos	(2 or more required) ) (Riverine) its (B2) (Riverine) 3) (Riverine) s (B10)
PROLOGY  Vetland Hydrology Indicators: rimary Indicators (any one indicator is sufficiently Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine)	ent) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13)	Secondary Indicators  Water Marks (B1  Sediment Depose Drift Deposits (B: Drainage Pattern Dry-Season Water	(2 or more required) ) (Riverine) its (B2) (Riverine) 3) (Riverine) s (B10) er Table (C2)
/ Cobble / Srand / Coor / Coor / Coor / Cobble / Srand / Coor / Cobble / Setland Hydrology Indicators: rimary Indicators (any one indicator is sufficiently of the coordinate	ent)  Salt Crust (B11)  Biotic Crust (B12)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Livin  Presence of Reduced Iron (C4)	Secondary Indicators  Secondary Indicators  Water Marks (B1  Sediment Depos  Drift Deposits (B3  Drainage Pattern  Dry-Season Water  Roots (C3) Thin Muck Surface  Crayfish Burrows	(2 or more required) ) (Riverine) its (B2) (Riverine) 3) (Riverine) s (B10) er Table (C2)
/ Cobble / Srand / Coor	ent)  Salt Crust (B11)  Biotic Crust (B12)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Livin  Presence of Reduced Iron (C4)  Recent Iron Reduction in Prowed S	Secondary Indicators  Secondary Indicators  Water Marks (B1 Sediment Deposits (B: Drainage Pattern Dry-Season Water Roots (C3) Thin Muck Surfact Crayfish Burrows	(2 or more required) ) (Riverine) its (B2) (Riverine) 3) (Riverine) s (B10) er Table (C2) ce (C7)
POROLOGY  Vetland Hydrology Indicators: rimary Indicators (any one indicator Is sufficiently Surface Water (A1) High Water Table (A2)  Vetland Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7)	ent)  Salt Crust (B11)  Biotic Crust (B12)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Livin  Presence of Reduced Iron (C4)	Secondary Indicators  Secondary Indicators  Water Marks (B1 Sediment Deposits (B: Drainage Pattern Dry-Season Water Roots (C3) Thin Muck Surfact Crayfish Burrows	(2 or more required) ) (Riverine) its (B2) (Riverine) 3) (Riverine) s (B10) er Table (C2) ee (C7) (C8) e on Aerial Imagery (C9
POROLOGY  Vetland Hydrology Indicators: rimary Indicators (any one indicator Is sufficiently Surface Water (A1) High Water Table (A2)  Vetland Hydrology Indicators: rimary Indicators (any one indicator Is sufficiently Surface Water (A1) High Water Table (A2)  Vetland Hydrology Indicators: 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)	ent)  Salt Crust (B11)  Biotic Crust (B12)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Livin  Presence of Reduced Iron (C4)  Recent Iron Reduction in Prowed S	Secondary Indicators  Water Marks (B1  Sediment Depose Drift Deposits (B3  Drainage Pattern Dry-Season Water Thin Muck Surface Crayfish Burrows Soils (C6) Saturation Visible	(2 or more required) ) (Riverine) its (B2) (Riverine) 3) (Riverine) is (B10) or Table (C2) is (C7) i (C8) on Aerial Imagery (C9 (D3)
/OROLOGY /etland Hydrology Indicators: rimary Indicators (any one indicator is sufficiently 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)	ent)  Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Livin Presence of Reduced Iron (C4) Recent Iron Reduction In Prowed S Other (Explain in Remarks)	Secondary Indicators  Water Marks (B1  Sediment Depose Drift Deposits (B: Drainage Pattern Dry-Season Water Roots (C3) Thin Muck Surface Crayfish Burrows Soils (C6) Shallow Aquitard	(2 or more required) ) (Riverine) its (B2) (Riverine) 3) (Riverine) is (B10) or Table (C2) oe (C7) (C8) on Aerial Imagery (C9 (D3)
VDROLOGY  Vetland Hydrology Indicators:  Irimary Indicators (any one indicator is sufficiently s	Salt Crust (B11)  Biotic Crust (B12)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Livin  Presence of Reduced Iron (C4)  Recent Iron Reduction in Piowed 3  Other (Explain in Remarks)	Secondary Indicators  Water Marks (B1  Sediment Depose Drift Deposits (B: Drainage Pattern Dry-Season Water Roots (C3) Thin Muck Surface Crayfish Burrows Soils (C6) Shallow Aquitard	(2 or more required) ) (Riverine) its (B2) (Riverine) 3) (Riverine) is (B10) or Table (C2) is (C7) i (C8) on Aerial Imagery (C9 (D3)
VDROLOGY  Vetland Hydrology Indicators:  Irimary Indicators (any one indicator Is sufficiently 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)  Veter Table Present?  Yes No later Table Present?	Salt Crust (B11)  Biotic Crust (B12)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Livin  Presence of Reduced Iron (C4)  Recent Iron Reduction In Prowed S  Other (Explain in Remarks)  Depth (inches):	Secondary Indicators  Water Marks (B1  Sediment Depose Drift Deposits (B: Drainage Pattern Dry-Season Water Roots (C3) Thin Muck Surface Crayfish Burrows Soils (C6) Shallow Aquitard	(2 or more required) ) (Riverine) its (B2) (Riverine) 3) (Riverine) is (B10) or Table (C2) oe (C7) (C8) on Aerial Imagery (C9 (D3)
VDROLOGY Vetland Hydrology Indicators:  Irimary Indicators (any one indicator Is sufficiently a 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)  eld Observations:  urface Water Present?  Attraction Present?  Yes No attraction Present?  Yes No attraction Present?  Yes No attraction Present?	Salt Crust (B11)  Biotic Crust (B12)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Livin  Presence of Reduced iron (C4)  Recent Iron Reduction In Prowed South (Explain in Remarks)  Depth (inches):	Secondary Indicators  Water Marks (B1 Sediment Deposits (B: Drainage Pattern Dry-Season Water GRoots (C3) Thin Muck Surfact Crayfish Burrows Goils (C6) Saturation Visible Shallow Aquitard FAC-Neutral Test	(2 or more required) ) (Riverine) its (B2) (Riverine) 3) (Riverine) is (B10) or Table (C2) oe (C7) i (C8) on Aerial Imagery (C9 (D3) it (D5)
VDROLOGY  Vetland Hydrology Indicators:  Irimary Indicators (any one indicator Is sufficiently 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)  Veter Table Present?  Yes No later Table Present?	Salt Crust (B11)  Biotic Crust (B12)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Livin  Presence of Reduced iron (C4)  Recent Iron Reduction In Prowed South (Explain in Remarks)  Depth (inches):	Secondary Indicators  Water Marks (B1 Sediment Deposits (B: Drainage Pattern Dry-Season Water GRoots (C3) Thin Muck Surfact Crayfish Burrows Goils (C6) Saturation Visible Shallow Aquitard FAC-Neutral Test	(2 or more required) ) (Riverine) its (B2) (Riverine) 3) (Riverine) is (B10) or Table (C2) is (C7) is (C8) on Aerial Imagery (C9 (D3) it (D5)
VDROLOGY Vetland Hydrology Indicators:  Irimary Indicators (any one indicator Is sufficiently a 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)  eld Observations:  urface Water Present?  Attraction Present?  Yes No attraction Present?  Yes No attraction Present?  Yes No attraction Present?	Salt Crust (B11)  Biotic Crust (B12)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Livin  Presence of Reduced iron (C4)  Recent Iron Reduction In Prowed South (Explain in Remarks)  Depth (inches):	Secondary Indicators  Water Marks (B1 Sediment Deposits (B: Drainage Pattern Dry-Season Water GRoots (C3) Thin Muck Surfact Crayfish Burrows Goils (C6) Saturation Visible Shallow Aquitard FAC-Neutral Test	(2 or more required) ) (Riverine) its (B2) (Riverine) 3) (Riverine) is (B10) or Table (C2) is (C7) is (C8) on Aerial Imagery (C9 (D3) it (D5)

## WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Panoche Rose	& Bridg	جگ	Clty/Co	ounty:Sc	in Beni	10	_ Sampling Date:	7/6/201
Applicant/Owner: Sen 3	To CONN	[w			State	· C-4	Complian Dates	1 -
Investigator(s): M', ke Tru	eblood .	<u> </u>	Section	n, Township, F	Range:			
Landform (hillslope, terrace, etc.):			Local	relief (concave	e, convex, none	o):	Siz	nna (9/ ):
Subregion (LRR):		Lat:	_	,	Long	·	SIC	,pe (%):
Soll Map Unit Name:					—	MM/I clossif	Datt	ım: ———
Are climatic / hydrologic conditions on th	e site typical for	this time of ve	aar? Vo	e V No	(16	and the but	cation:	
Are Vegetation, Soil, or I	-ivetrology	eignificantly	dietus					,
Are Vegetation, Soil, or h							present? Yes	No
SUMMARY OF FINDINGS - At				•			ers in Remarks.) <b>S, important f</b> e	atures, etc
Hydrophytic Vegetation Present?	Yes							
Hydric Soil Present?	Yes			is the Sample				
Wetland Hydrology Present?	Yes		1	within a Wetla	and?	Yes	No_ <u>√</u> _	_
Remarks:	upla	and clato	k pori	nt				
VEGETATION					<u>_</u>			
Tree Stratum (Use scientific names.)		Absolute % Cover	Domin	nant Indicator es? Status	Dominance	Test work	sheet:	
1					Number of that Are Of	Dominant S	pecies or FAC: C	
2				<del></del>				(A)
3					Total Number Species Acr	er of Domin	ant 3	(5)
4.					1			(B)
Sapling/Shrub Stratum	Total Cov	er:			Percent of D That Are OB	ominant Sp L. FACW	or FAC:	<b>/</b> (A/B)
1. Buchary pllylaris		\ o <sup>0</sup> 10	W.	0.				<u>1                                    </u>
2.					Prevalence Total %			
3							x 1 =	/ bv:
4								
5							x3=	
Hart Ohnel	Total Cove						x 4 =	
Herb Stratum  1. Plantag lanceclata		ale -	<b>A.</b> .	e	UPL species		x 5 =	
2. Hulocarpa vireata		<u> </u>	700	Face	Column Tota	ıls:	(A)	(B)
3. Browns hardeness			Yes	Facy	ļ		= B/A =	
4. Brussica hizra				VPL			n Indicators:	=
5. Avena Fatua				UYL	1	ce Test is:		1
6					Prevaler			]
7.					Morpholi	ogical Adap	etations¹ (Provide s	unnorting
8					data i	n Remarks	or on a separate s	heet)
Mary de Mary Charles	Total Cove	r. <u>75%</u>			Problem	atic Hydrop	hytic Vegetation <sup>1</sup> (	Explain)
Woody Vine Stratum					10.00			
1 2					be present.	hydric soil	and wetland hydro	logy must
	Total Cove				· .			
% Bare Ground In Herb Stratum		r of Blotic Cru	st	}	Hydrophytic Vegetation Present?		No_V	
Remarks:					- 104411[1	1 48	NoV	
								]

(inches) Color (moist)	Redox Features	Loc <sup>2</sup> To	exture Remarks
. 17	<u> </u>		1347124013
<u> </u>			cobbly soundy loam
<del></del>			
- <del>-</del>			
	<del></del>		
	·····		
Type: C=Concentration, D=Depletion	n RM=Reduced Matrix 2 position: PI =Porm	Liebe BC-D-	
ydric Soli indicators: (Applicable	to all LRRs, unless otherwise noted.)	Lining, RC=Ro	ot Channel, M=Matrix.
_ Histosol (A1)	Sandy Redox (S5)		dicators for Problematic Hydric Solis <sup>3</sup> :
_ Histic Epipedon (A2)	Stripped Matrix (S6)		_ 1 cm Muck (A9) (LRR C)
_ Black Histic (A3)	Loamy Mucky Mineral (F1)		2 cm Muck (A10) (LRR B)
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)		Reduced Vertic (F18)
Stratified Layers (A5) (LRR C)	Depleted Matrix (F3)		Red Parent Material (TF2) Other (Explain in Remarks)
_ 1 cm Muck (A9) (LRR D)	Redox Dark Surface (F6)	_	Culer (Explain in Remarks)
_ Depleted Below Dark Surface (A1	Depleted Dark Surface (F7)		
_ Thick Dark Surface (A12)	Redox Depressions (F8)		
_ Sandy Mucky Mineral (S1)	Vernal Pools (F9)	³in	dicators of hydrophytic vegetation and
Sandy Gleyed Matrix (S4)		•	wetiand hydrology must be present.
estrictive Layer (if present):			y and a prosont.
		1	
Туре:			
Type: Depth (inches):		Hyd	iric Soli Present? Yes No
Depth (inches):		Hyd	Iric Soli Present? Yes No
Depth (inches):		Hyd	iric Soli Present? Yes No/
Depth (inches):		Hyd	iric Soli Present? Yes No
Depth (inches):		Нус	iric Soli Present? Yes No
Depth (inches):		Hyd	iric Solf Present? Yes No
Depth (inches):  Roadside Sill  DROLOGY		Hyd	
Depth (inches):  Road Stdc 5:    DROLOGY  atland Hydrology Indicators:	dirt.	Hyd	Secondary Indicators (2 or more required)
Depth (inches):  Road Stdc 5:11  DROLOGY  atland Hydrology Indicators: mary Indicators (any one indicator is	Jirt.	Hyd	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine)
Depth (inches):  Promarks:  Road Stdc 5:11  DROLOGY  Itland Hydrology Indicators: mary Indicators (any one indicator is Surface Water (A1)	Sufficient) Salt Crust (B11)	Hyd	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine)
Depth (inches):  Primarks:  Roadstd 5:    DROLOGY  Strand Hydrology Indicators:  mary Indicators (any one indicator is  Surface Water (A1)  High Water Table (A2)	Jirt.	Hyd	Secondary Indicators (2 or more required)  Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine)
Depth (inches):  Promarks:  Road Stale 5:    DROLOGY  Itland Hydrology Indicators:  mary Indicators (any one indicator is  Surface Water (A1)	Sufficient) Salt Crust (B11)	Hyd	Secondary Indicators (2 or more required)  Water Marks (B1) (Riverine)  Sediment Deposits (B2) (Riverine)  Drift Deposits (B3) (Riverine)
Depth (inches):  Promarks:  Road State 5://  DROLOGY  Itland Hydrology Indicators:  mary Indicators (any one indicator is  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1) (Nonriverine)	sufficient)  Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1)	Hyd	Secondary Indicators (2 or more required)  Water Marks (B1) (Riverine)  Sediment Deposits (B2) (Riverine)  Drift Deposits (B3) (Riverine)  Drainage Pattems (B10)
Depth (inches):  Promarks:  Road State 5:    DROLOGY  Itland Hydrology Indicators:  mary Indicators (any one indicator is  Surface Water (A1)  High Water Table (A2)  Saturation (A3)	sufficient)  Salt Crust (B11) Biotic Crust (B12) Aquatic invertebrates (B13) Hydrogen Sulfide Odor (C1)		Secondary Indicators (2 or more required)  Water Marks (B1) (Riverine)  Sediment Deposits (B2) (Riverine)  Drift Deposits (B3) (Riverine)  Drainage Pattems (B10)  Dry-Season Water Table (C2)
Depth (inches):  Proced State 5:    DROLOGY  Stand Hydrology Indicators:  Proced State 5:    DROLOGY  Stand Hydrology Indicators:  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1) (Nonriverine)	sufficient)  Salt Crust (B11) Biotic Crust (B12) Aquatic invertebrates (B13) Hydrogen Sulfide Odor (C1) Dxidized Rhizospheres along Live		Secondary Indicators (2 or more required)  Water Marks (B1) (Riverine)  Sediment Deposits (B2) (Riverine)  Drift Deposits (B3) (Riverine)  Drainage Pattems (B10)  Dry-Season Water Table (C2)  Thin Muck Surface (C7)
DROLOGY  atland Hydrology Indicators: mary Indicators (any one indicator is Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine)	sufficient)  Salt Crust (B11) Biotic Crust (B12) Aquatic invertebrates (B13) Hydrogen Sulfide Odor (C1) Didized Rhizospheres along Line Presence of Reduced Iron (C4)	ring Roots (C3)	Secondary Indicators (2 or more required)  Water Marks (B1) (Riverine)  Sediment Deposits (B2) (Riverine)  Drift Deposits (B3) (Riverine)  Drainage Pattems (B10)  Dry-Season Water Table (C2)  Thin Muck Surface (C7)  Crayfish Burrows (C8)
DROLOGY  atland Hydrology Indicators: mary Indicators (any one indicator is 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)	sufficient)  Salt Crust (B11) Biotic Crust (B12) Aquatic invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Line Presence of Reduced Iron (C4) Recent Iron Reduction in Plowed	ring Roots (C3)	Secondary Indicators (2 or more required)  Water Marks (B1) (Riverine)  Sediment Deposits (B2) (Riverine)  Drift Deposits (B3) (Riverine)  Drainage Pattems (B10)  Dry-Season Water Table (C2)  Thin Muck Surface (C7)  Crayfish Burrows (C8)  Saturation Visible on Aerial Imagery (C
DROLOGY  attand Hydrology Indicators: mary Indicators (any one indicator is 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	sufficient)  Salt Crust (B11) Biotic Crust (B12) Aquatic invertebrates (B13) Hydrogen Sulfide Odor (C1) Didized Rhizospheres along Ling Presence of Reduced Iron (C4) Recent Iron Reduction in Plowed	ring Roots (C3)	Secondary Indicators (2 or more required)  Water Marks (B1) (Riverine)  Sediment Deposits (B2) (Riverine)  Drift Deposits (B3) (Riverine)  Drainage Pattems (B10)  Dry-Season Water Table (C2)  Thin Muck Surface (C7)  Crayfish Burrows (C8)  Saturation Visible on Aerial Imagery (Ca)  Shallow Aquitard (D3)
Depth (inches):  Promarks:  Road Stdl 5:    DROLOGY  Strand Hydrology Indicators:  mary Indicators (any one indicator is  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  Water-Stained Leaves (B9)	sufficient)  Salt Crust (B11) Biotic Crust (B12) Aquatic invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Line Presence of Reduced Iron (C4) Recent Iron Reduction in Plowed	ring Roots (C3)	Secondary Indicators (2 or more required)  Water Marks (B1) (Riverine)  Sediment Deposits (B2) (Riverine)  Drift Deposits (B3) (Riverine)  Drainage Pattems (B10)  Dry-Season Water Table (C2)  Thin Muck Surface (C7)  Crayfish Burrows (C8)  Saturation Visible on Aerial Imagery (C
Depth (inches):  Proced State 5://  DROLOGY  Stand Hydrology Indicators:  Proced State 5://  Stand Hydrology Indicators:  Proced State 5://  Mater Marks (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  Water-Stained Leaves (B9)  Id Observations:	sufficient)  Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Lin Presence of Reduced Iron (C4) Recent Iron Reduction in Plowed y (B7) Other (Explain in Remarks)	ring Roots (C3)	Secondary Indicators (2 or more required)  Water Marks (B1) (Riverine)  Sediment Deposits (B2) (Riverine)  Drift Deposits (B3) (Riverine)  Drainage Pattems (B10)  Dry-Season Water Table (C2)  Thin Muck Surface (C7)  Crayfish Burrows (C8)  Saturation Visible on Aerial Imagery (Ca)  Shallow Aquitard (D3)
Depth (inches):  Promarks:  Roadstall 5:    DROLOGY  Satiand Hydrology Indicators:  Mary Indicators (any one indicator is  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  Water-Stained Leaves (B9)  Id Observations:  face Water Present?  Yes	sufficient)  Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Lin Presence of Reduced Iron (C4) Recent Iron Reduction in Plowed y (B7) Other (Explain in Remarks)	ring Roots (C3)	Secondary Indicators (2 or more required)  Water Marks (B1) (Riverine)  Sediment Deposits (B2) (Riverine)  Drift Deposits (B3) (Riverine)  Drainage Pattems (B10)  Dry-Season Water Table (C2)  Thin Muck Surface (C7)  Crayfish Burrows (C8)  Saturation Visible on Aerial Imagery (Ca)  Shallow Aquitard (D3)
DROLOGY  atland Hydrology Indicators: mary Indicators (any one indicator is 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 Water-Stained Leaves (B9) Ind Observations: face Water Present?  Yes  Interval 1	Sufficient)  Salt Crust (B11) Biotic Crust (B12) Aquatic invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Lic Presence of Reduced Iron (C4) Recent Iron Reduction in Plowed (B7) Other (Explain in Remarks)  No Depth (Inches): No Depth (inches):	ring Roots (C3)	Secondary Indicators (2 or more required)  Water Marks (B1) (Riverine)  Sediment Deposits (B2) (Riverine)  Drift Deposits (B3) (Riverine)  Drainage Pattems (B10)  Dry-Season Water Table (C2)  Thin Muck Surface (C7)  Crayfish Burrows (C8)  Saturation Visible on Aerial Imagery (C
DROLOGY  atland Hydrology Indicators: mary Indicators (any one indicator is 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 Water-Stained Leaves (B9) Ind Observations: face Water Present?  Ves  uration Present?  Yes  uration Present?  Yes  Ves  uration Present?  Yes	sufficient)  Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Lin Presence of Reduced Iron (C4) Recent Iron Reduction in Plowed y (B7) Other (Explain in Remarks)	ring Roots (C3)	Secondary Indicators (2 or more required)  Water Marks (B1) (Riverine)  Sediment Deposits (B2) (Riverine)  Drift Deposits (B3) (Riverine)  Drainage Pattems (B10)  Dry-Season Water Table (C2)  Thin Muck Surface (C7)  Crayfish Burrows (C8)  Saturation Visible on Aerial Imagery (C3)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)
Depth (inches):  Promarks:  Road State 5:    DROLOGY  Satiand Hydrology Indicators:  Imary Indicators (any one indicator is  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  Water-Stained Leaves (B9)  Id Observations:  face Water Present?  Yes  Juration Present?  Judes capillary fringe)	sufficient)  Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Lin Presence of Reduced Iron (C4) Recent Iron Reduction in Plowed y (B7) Other (Explain in Remarks)  No Depth (Inches): No Depth (inches):	Ving Roots (C3)	Secondary Indicators (2 or more required)  Water Marks (B1) (Riverine)  Sediment Deposits (B2) (Riverine)  Drift Deposits (B3) (Riverine)  Drainage Pattems (B10)  Dry-Season Water Table (C2)  Thin Muck Surface (C7)  Crayfish Burrows (C8)  Saturation Visible on Aerial Imagery (Caster of the Caster of the Caste
Depth (inches):  Promarks:  Road State 5:    DROLOGY  Satiand Hydrology Indicators:  Imary Indicators (any one indicator is  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  Water-Stained Leaves (B9)  Id Observations:  face Water Present?  Yes  Juration Present?  Judes capillary fringe)	Sufficient)  Salt Crust (B11) Biotic Crust (B12) Aquatic invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Lic Presence of Reduced Iron (C4) Recent Iron Reduction in Plowed (B7) Other (Explain in Remarks)  No Depth (Inches): No Depth (inches):	Ving Roots (C3)	Secondary Indicators (2 or more required)  Water Marks (B1) (Riverine)  Sediment Deposits (B2) (Riverine)  Drift Deposits (B3) (Riverine)  Drainage Pattems (B10)  Dry-Season Water Table (C2)  Thin Muck Surface (C7)  Crayfish Burrows (C8)  Saturation Visible on Aerial Imagery (Caster of the control of the
Depth (inches):  Primarks:  Road Stdl 5:    DROLOGY  Strand Hydrology Indicators:  mary Indicators (any one indicator is  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  Water-Stained Leaves (B9)  Id Observations:  face Water Present? Yes  Ler Table Present? Yes  Luration Present? Yes  Luration Present? Yes  Ludes capillary fringe)  cribe Recorded Data (stream gauge,	sufficient)  Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Lin Presence of Reduced Iron (C4) Recent Iron Reduction in Plowed y (B7) Other (Explain in Remarks)  No Depth (Inches): No Depth (inches):	Ving Roots (C3)	Secondary Indicators (2 or more required)  Water Marks (B1) (Riverine)  Sediment Deposits (B2) (Riverine)  Drift Deposits (B3) (Riverine)  Drainage Pattems (B10)  Dry-Season Water Table (C2)  Thin Muck Surface (C7)  Crayfish Burrows (C8)  Saturation Visible on Aerial Imagery (Caster of the Caster of the Caste
Depth (inches):  Promarks:  Road State 5:    DROLOGY  Satiand Hydrology Indicators:  Imary Indicators (any one indicator is  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  Water-Stained Leaves (B9)  Id Observations:  face Water Present?  Yes  Juration Present?  Judes capillary fringe)	sufficient)  Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Lin Presence of Reduced Iron (C4) Recent Iron Reduction in Plowed y (B7) Other (Explain in Remarks)  No Depth (Inches): No Depth (inches):	Ving Roots (C3)	Secondary Indicators (2 or more required)  Water Marks (B1) (Riverine)  Sediment Deposits (B2) (Riverine)  Drift Deposits (B3) (Riverine)  Drainage Pattems (B10)  Dry-Season Water Table (C2)  Thin Muck Surface (C7)  Crayfish Burrows (C8)  Saturation Visible on Aerial Imagery (Caster of the control of the

## WETLAND DETERMINATION DATA FORM - Arld West Region

Project/Site: Panoche Road Bris	dge_	City/Co	unty: <b>5</b>	an Benito	Sampling Date:	7/6/201
Applicant/Owner: San Isans to Carl	~t~			State: CA	Sampling Boint	3
Investigator(s): Mike Trueblood		Section	, Township, F	Range:		
Landform (hillsiope, terrace, etc.):		Local r	ellef (concave	e. convex. none):	012	Po /9/ \:
Subregion (LRR):	Lat:		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	l ong:	\$10	pe (%):
Solf Map Unit Name:				MWI class	Dalu	m:
Are climatic / hydrologic conditions on the site typical if	or this time of ve	ar? Yes	No.	(If no explois le	Demode \	
Are Vegetation, Soil, or Hydrology	significantly	disturbe		"Normal Circumstances		/
Are Vegetation, Soil, or Hydrology				needed, explain any ansv	_	No
SUMMARY OF FINDINGS - Attach site n			•			atures, etc.
i	No					
	No		s the Sample			
Wetland Hydrology Present? Yes	No	٧	vithin a Wet!	and? Yes	No	
Remarks:						
VEGETATION						
Tree Stratum (Use scientific names.)	Absolute % Cover		ant Indicator s? Status			
1				Number of Dominant : That Are OBL, FACW		(4)
2				1		(A)
3.				Total Number of Domi Species Across All Str	Inant 3	(B)
4				1		(D)
Total C Sapling/Shrub Stratum	over:			Percent of Dominant S That Are OBL, FACW	or FAC:	290 (A/B)
1. Bacharis salisi Solia	30%	Yes	Cochi	Prevalence Index wo		
2				Total % Cover of:		hve
3				OBL species		
4				FACW species		
5	<del></del> .		- 11	FAC species		
Total Co	over: <u>3c %</u>			FACU species	× 4 =	
1. Arvenesia declasii	1590	4,0	E.d.	UPL species	x 5 =	
2. polim multistorum		Ard	- Terra	Column Totals:	(A)	(B)
3. Polypocen menspeliencis	10%	Yes	Fecu	Prevalence Index	c = B/A =	ſ
* · · · · · · · · · · · · · · · · · · ·				Hydrophytic Vegetati		
5				✓ Dominance Test is	>50%	
6				Prevalence Index	ls ≤3.0¹	ĺ
7				Morphological Ada	ptations¹ (Provide s	upporting
8				Problematic Hydro	s or on a separate s	
Fotal Co Woody Vine Stratum	ver: 30/9			· robioinduc riyaro	bulyac vederanom (i	explain)
1				Indicators of hydric so	if and wetland hydroi	logy much
2				be present.		ogy must
	ver:	_		Hydrophytic		
% Bare Ground in Herb Stratum % Con	ver of Biotic Crus	st	i	Vegetation Present? Ye	/	ł
Remarks:				. 1999IIII YE	* No	

		, to the debu	n needed to docum	nent the indicator	or confirm	the absence	of indicators.)	-	
Depth (inches)	Color (molst)								
		- <del>%</del> -	Color (moist)	% Type	Loc	<u>Texture</u>	Remarks		
0-17	10 yr 3/2	100%					coloh Sand		
							U		
Type: C=Cor	ncentration, D=Dep	letion, RM=R	Reduced Matrix. 2	Location: PL=Pore	Lining, RO	=Root Chan	nel, M=Matrix.		
iyanc son in	idicators: (Application	able to all Li	RRs, unless otherv	vise noted.)		indicators	for Problematic Hydric So	ils³;	
_ Histosol (/	•		Sandy Redox				Muck (A9) (LRR C)		
	pedon (A2)		Stripped Mat			2 cm Muck (A10) (LRR B)			
Biack Hist Hydrogen			Loamy Muck			Reduced Vertic (F18)			
	Sunde (A4) Layers (A5) (LRR C	•1	Loamy Gleye				arent Material (TF2)		
	k (A9) (LRR D)	"	Depleted Mat			✓ Other	(Explain in Remarks)		
	Below Dark Surface	(A11)		suпасе (F6) k Surface (F7)					
	k Surface (A12)	, , ,	Redox Depre						
	cky Mineral (S1)		Vernal Pools			3Indicators	of hydrophytic vegetation and		
_				Huloman	os ukorobukire safararon au	d			
						wetland	hydrology must be present		
	yec Matrix (S4) yer (if present):		<u></u>			wetland	hydrology must be present.		
estrictive La						wetland	hydrology must be present.		
Type:	yer (if present):		_						
Type: Depth (inche	yer (if present):		<del>_</del>	wed to ac	liacent	Hydric Soli	Present? Yes	lo	
Type:	es):		<del>_</del>	wed to ac	ljacent	Hydric Soli		lo	
Type:	yer (if present): es): cluction of		<del>_</del>	wed to ac	liacent	Hydric Soli	Present? Yes	lo	
Depth (incher arks:	yer (if present): es): cluction of	soil Ch	iroma compo	wed to ac	liacent	Hydric Soll  Up (4h	Present? Yes V		
Type:	yer (if present): es): cdvcないかん か  Y plogy indicators: prs (any one Indicat	soil Ch	noma compo		liacent	Hydric Soli	Present? Yes No. A clara point;  dary indicators (2 or more real ater Marks (B1) (Riverine)	quired)	
DROLOG  Surface Wa	yer (if present): es): cluckton of  y plogy indicators: ers (any one indicator (A1)	soil Ch	nt) Salt Crust (B	11)	Vacent	Hydric Soli  Up (an  Secon  W  Se	Present? Yes	quired)	
DROLOG  Surface Wa High Water	yer (if present):  es):  Cluckton of  plogy indicators:  prs (any one indicator (A1)  Table (A2)	soil Ch	nt) Salt Crust (B Blotic Crust (	11) B12)	liacent	Hydric Soli  Up (An  Secon  W  Se	Present? Yes No. A clara point;  dary indicators (2 or more real ater Marks (B1) (Riverine)	quired)	
DROLOGY  Bufface Water  Saturation (	yer (if present):  es):  Cluckton of  Plogy indicators:  ors (any one indicators (A1)  Table (A2)  (A3)	soil Ch	nt) Salt Crust (B Blotic Crust (in Line)	11) B12) tebrates (B13)	liacent	Hydric Soli  Up (4h  Secon  W  Se	Present? Yes	quired)	
DROLOGY  Type:  Depth (inchesemarks:  Performance of the control o	yer (if present): es): cluckton of plogy indicators: ers (any one indicators (A1) Table (A2) (A3) es (B1) (Nonriverine	Soil Ch	nt)  Salt Crust (B Blotic Crust (in Aquatic Inver	11) B12) tebrates (B13)		Secon W Se Dr	Present? Yes	quired)	
DROLOGY  Type: Depth (Inchesemarks:  Permarks:	yer (if present):  es):  Cluckton of  plogy indicators:  pres (any one indicator (A1)  Table (A2)  (A3)  (A3)  (A6)  (A9)  (A9)  (A9)  (A9)  (A9)  (A9)	Soil Ch	nt)  Salt Crust (B Blotic Crust (in the content of	11) B12) tebrates (B13) Ifide Odor (C1) zospheres along Li		Secon  Secon  Dr  Dr	Present? Yes	quired)	
DROLOG  Type: Depth (Inchesemarks:  Permarks:	yer (if present):  es):  cluction of indicators:  ors (any one indicators (A1)  Table (A2)  (A3)  is (B1) (Nonrivering (B2) (Nonrivering (B3) (Nonrivering (	Soil Ch	Salt Crust (B Biotic Crust (IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	11) B12) tebrates (B13) Ifide Odor (C1) zospheres along Li Reduced Iron (C4)	ving Roots	Secon   W	Present? Yes	quired)	
DROLOG  Type: Depth (Inchesemarks:  Performarks: DROLOG  Stand Hydro  mary Indicate Surface Water High Water Saturation ( Water Mark Sediment D  Drift Deposi Surface Soil	yer (if present):  es):  y  viology indicators:  ors (any one indicat ater (A1)  Table (A2)  (A3)  is (B1) (Nonriverine its (B3) (Nonriverine its (B3) (Nonriverine it (B3) (Nonriverine	soil Ch toris sufficient	Salt Crust (B Biotic Crust (IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	11) B12) tebrates (B13) Ifide Odor (C1) zospheres along Li	ving Roots	Secon  Secon  Dr  Cr  (C3) Th	dary Indicators (2 or more recater Marks (B1) (Riverine) adiment Deposits (B2) (Riverine) ainage Patterns (B10) y-Season Water Table (C2) in Muck Surface (C7) ayfish Burrows (C8)	quired)	
DROLOGY  Type: Depth (Inchesemarks:  Pe  DROLOGY  Stland Hydro  Surface Water  Saturation ( Water Mark  Sediment D  Drift Deposi  Surface Soil  Inundation \	yer (if present):  es):  y  plogy indicators:  present (A1)  Table (A2)  (A3)  is (B1) (Nonrivering  peposits (B2) (Nonrivering  its (B3) (Nonrivering  its (B3) (Nonrivering  its (B6)  //sible on Aerial Image	soil Ch toris sufficient	Salt Crust (B Blotic Crust (IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	11) B12) tebrates (B13) Ifide Odor (C1) zospheres along Li Reduced Iron (C4)	ving Roots	Secon	Present? Yes	quired)	
DROLOGY  Type: Depth (Inchesemarks:  PROLOGY  Telegraph of the property of the	yer (if present):  es):  Cluckton of  Pology indicators:  ors (any one indicators):  ater (A1)  Table (A2)  (A3)  is (B1) (Nonrivering):  peposits (B2) (Nonrivering):  its (B3) (Nonrivering):  it Cracks (B6)  //sible on Aerial Imaged Leaves (B9)	soil Ch toris sufficient	Salt Crust (B Blotic Crust (IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	11) B12) tebrates (B13) Ifide Odor (C1) zospheres along Li Reduced iron (C4) Reduction in Plower	ving Roots	Secon	Present? Yes	quired	
DROLOGY  Type: Depth (Inchesemarks:  Pe  DROLOGY  Stland Hydro  Surface Water  Saturation ( Water Mark  Sediment D  Drift Deposi  Surface Soil  Inundation \	yer (if present):  es):  Cluckton of  Pology indicators:  ors (any one indicators):  ater (A1)  Table (A2)  (A3)  is (B1) (Nonrivering):  peposits (B2) (Nonrivering):  its (B3) (Nonrivering):  it Cracks (B6)  //sible on Aerial Imaged Leaves (B9)	soil Ch toris sufficient	Salt Crust (B Blotic Crust (IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	11) B12) tebrates (B13) Ifide Odor (C1) zospheres along Li Reduced iron (C4) Reduction in Plower	ving Roots	Secon	Present? Yes	quired)	
DROLOGY  Type: Depth (Inchesemarks:  PROLOGY  Telegraph of the property of the	yer (if present):  es):  Cluckton of  plogy indicators:  pres (any one indicator (A1)  Table (A2)  (A3)  is (B1) (Nonrivering (B2) (Nonrivering (B3) (Nonriv	soil Ch for is sufficient e) iverine) ne)	Salt Crust (B Blotic Crust (IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	11) B12) tebrates (B13) Ifide Odor (C1) zospheres along Li Reduced Iron (C4) Reduction in Plower n in Remarks)	ving Roots	Secon	Present? Yes	quired)	
DROLOGY  Type: Depth (Inche emarks:  Permarks:	yer (if present):  es):  Cluckton of  plogy indicators:  ors (any one indicators (A1)  Table (A2)  (A3)  is (B1) (Nonrivering (B2) (Nonrivering (B3) (Nonriv	soil Chatoris sufficient e) iverine) agery (B7)	Salt Crust (B Blotic Crust (IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	11) B12) tebrates (B13) Ifide Odor (C1) zospheres along Li Reduced iron (C4) Reduction in Plower n in Remarks)	ving Roots	Secon	Present? Yes	quired)	
DROLOG  Type: Depth (Inche emarks:  Permarks:	yer (if present):  es):  y  plogy indicators: present (A1) Table (A2) (A3) (A3) (A3) (A3) (A3) (A3) (A3) (A3	e) iverine) agery (B7) NoNo	Salt Crust (B Salt Crust (Company) Aquatic Inver Hydrogen Su Oxidized Rhiz Presence of F Recent Iron R Other (Explain	11) B12) tebrates (B13) Ifide Odor (C1) zospheres along Li Reduced Iron (C4) Reduction in Plower n in Remarks) s): 7121	ving Roots d Sails (C6)	Secon  Secon  Secon  Dr  Cr  Cr  Sa  FA	Present? Yes	ine)	

### WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Panoche Road	d Brid	<u> پعـــــ</u>	Clty/C	County:	G <sub>1</sub>	Bento	Sampling Date:	7/6/201
Applicant/Owner: Son Son	To Cork	<u>~7</u>				State: CA	Sampling Doint	3.
Investigator(s):	ublood.	<del></del>	Section	on, Township, f	Range			
Landform (hilfslope, terrace, etc.):			Loca	l rellef (concave	e. conv	/ex. none):	St	one (9/ ):
Subregion (LRR):		Lat:		(**************************************	l c	nag:	Sil	JPB (%):
Soll Map Unit Name:						NWI classi		
Are climatic / hydrologic conditions on ti				ac V Na		(NV) Classi	nication:	
Are Vegetation, Soil, or							-	,
Are Vegetation, Soil, or						mal Circumstances		No
SUMMARY OF FINDINGS - A				•		d, explain any ansv tions, transect	•	eatures, etc.
Hydrophytic Vegetation Present?	Yes							.0
Hydric Soll Present?				Is the Sample				
Wetland Hydrology Present?	Yes			within a Wetl	land?	Yes	No <u></u>	-
Remarks:		datapo	Ant	•				<del>-</del>
VEGETATION								
Tree Stratum (Use scientific names.)	-	Absolute % Cover		inant Indicator ies? Status	Do	minance Test wor	ksheet:	
t					LINO	mber of Dominant : at Are OBL, FACW	Species . or FAC:	\
2.					1			) (A)
3						al Number of Domi scies Across All Str		٠
4								(B)
Sapling/Shrub Stratum	Total Cov	/er:			Pea	cent of Dominant S at Are OBL, FACW,	or FAC:	70 (A/B)
1					Pre	valence Index wo	rksheet:	
2						Total % Cover of:		
3						L species		
4						CW species		
5	Total Cav					Species		
Herb Stratum	Total Cov	er:				CU species		
1. Avana Satua		6090	40	UPL	Col	_ species	X5 =	
2. Brems disanders		30%	4-9	UPL	1 001	umn Totals:	(A)	(B)
3. <u>Carduvs psynocepha</u>	<u> </u>	<u> </u>	NO	- Fecu		Prevalence Indax	c ≃ B/A =	
4. Heretern myriman					Hyd	rophytic Vegetati	on Indicators:	
5					1 —	Dominance Test is		
ő						Prevalence Index I		
7					1-	Morphological Ada	ptations' (Provide s s or on a separate s	upporting
Alachi Vina Stratu	Total Cove	or: 110 90			_	Problematic Hydro		
Woody Vine Stratum					110-41			
					be p	cators of hydric soi resent.	I and wetland hydro	logy must
· · · · · · · · · · · · · · · · · · ·		r:			Beltrook	ro-fratio		
6 Bare Ground in Herb Stratum			st		Veg	rophytic station sent? Yes	s NoV	
Remarks:	· · · · ·					-		

SOIL					Sampling Point:	3 .
Profile Description: (Describ	e to the depti	needed to document the Indicator	or confirm th	e absence	of Indicators )	
Depth Matrix		Redox Features			or managers,	
(inches) Color (molst)	%	Color (moist) % Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks	
0-13" 104K3/3	Logio				Sandy loan	
				_	Jan 10am	
					-	
	<del></del> -					
<sup>1</sup> Type: C=Concentration, D=De	pletion, RM=R	educed Matrix. <sup>2</sup> Location: PL=Pon	a Lielea BC-I	Post Char	al Mallatin	
Hydric Soll Indicators: (Applic	cable to ell LF	Rs, unless otherwise noted.)	s chinig, NO-1	Indicators	for Problematic Hydric Solls	3.
Histosol (A1)		Sandy Redox (S5)	•			<b>s</b> :
Histic Epipedon (A2)		Stripped Matrix (S6)	-		fuck (A9) (LRR C) fuck (A10) (LRR B)	
Black Histic (A3)		Loarny Mucky Mineral (F1)	•		ed Vertic (F18)	
Hydrogen Sulfide (A4)		Loamy Gleyed Matrix (F2)			arent Material (TF2)	
Stratified Layers (A5) (LRR	C)	Depleted Matrix (F3)			Explain in Remarks)	
1 cm Muck (A9) (LRR D)		Redox Dark Surface (F6)	•			
Depleted Below Dark Surface	æ (A11)	Depleted Dark Surface (F7)				
Thick Dark Surface (A12)		Redox Depressions (F8)				
Sandy Mucky Mineral (S1)		Vernal Pools (F9)	3	Indicators	of hydrophytic vegetation and	
Sandy Gleyed Matrix (S4)				wetland	hydrology must be present.	
Classification I are 100 and 100						
Type:		_				
Type: Depth (inches):			Н	ydric Soll I	5	<b>√</b>
			Н		9	<u> </u>
Type: Depth (inches):			Н		9	<u> </u>
Type: Depth (inches):			H		9	<u> </u>
Type: Depth (inches):			Н		9	<u> </u>
Type: Depth (inches): Remarks:			H		9	<u> </u>
Type: Depth (inches): Remarks:			H		9	<u> </u>
Type:			H	ydric Soll I	Present? Yes No	
Type:			H	ydric Soll I	Present? Yes No	
Type: Depth (inches): Remarks:  YDROLOGY Vetland Hydrology Indicators: rimary Indicators (any one indicators)		1)	H	ydric Solf I	Present? Yes No	lired)
Type:		t) Salt Crust (B11)	H	Second Wee	Present? Yes No  lary Indicators (2 or more requater Marks (B1) (Riverine)  diment Deposits (B2) (Riverine)	ired)
Type:		Salt Crust (B11) Biotic Crust (B12)	H	Second Wee	Present? Yes No  tary Indicators (2 or more requ ater Marks (B1) (Riverine) dIment Deposits (B2) (Riverine) ft Deposits (B3) (Riverine)	ired)
Type:	ator is sufficien	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13)	H	Second Was Bering	Present? Yes No  lary Indicators (2 or more requater Marks (B1) (Riverine)  dIment Deposits (B2) (Riverine)  ft Deposits (B3) (Riverine)  ainage Patterns (B10)	ired)
Type:	ator is sufficien	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1)	8	Second We Se Ori	Present? Yes No  Pary Indicators (2 or more requester Marks (B1) (Riverine)  Idiment Deposits (B2) (Riverine)  Idiment Deposits (B3) (Riverine)  Idinage Patterns (B10)  Present (C2)	ired)
Type:	ator is sufficien ne) riverine)	Salt Crust (B11)  Biotic Crust (B12)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Li	8	Second We Se Dri Dry Thi	Present? Yes No  lary Indicators (2 or more requester Marks (B1) (Riverine) diment Deposits (B2) (Riverine) ainage Patterns (B10) /-Season Water Table (C2) n Muck Surface (C7)	ired)
Type:	ator is sufficien ne) riverine)	Salt Crust (B11)  Biotic Crust (B12)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Li  Presence of Reduced Iron (C4)	ving Roots (C	Second Wes Dri Dry Thi Cre	Present? Yes No  Present? (B1) (Riverine)  Present (B10)  Present (B10	ired)
Type:	ne) riverine)	Salt Crust (B11)  Biotic Crust (B12)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Li  Presence of Reduced Iron (C4)  Recent Iron Reduction in Plowe	ving Roots (C	Second  Was  Se  Dri  Dry  Thi  Cra  Sat	Present? Yes No	ired)
Type:	ne) riverine)	Salt Crust (B11)  Biotic Crust (B12)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Li  Presence of Reduced Iron (C4)	ving Roots (C	Second  Second  Second  Dri  Dri  Cra  Sal	Present? Yes No	tired)
Type:	ne) riverine)	Salt Crust (B11)  Biotic Crust (B12)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Li  Presence of Reduced Iron (C4)  Recent Iron Reduction in Plowe	ving Roots (C	Second  Second  Second  Dri  Dri  Cra  Sal	Present? Yes No	ired)
Type: Depth (inches): PREMARKS:  YDROLOGY  Vetland Hydrology Indicators: Inimary Indicators (any one indicators) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonrivering Sediment Deposits (B2) (Nonrivering Surface Soil Cracks (B6) Inundation Visible on Aerial Interval Water-Stained Leaves (B9)  eld Observations:	ne) riverine) ine)	Salt Crust (B11)  Biotic Crust (B12)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Li  Presence of Reduced Iron (C4)  Recent Iron Reduction in Plowe  Other (Explain in Remarks)	ving Roots (C	Second  Second  Second  Dri  Dri  Cra  Sal	Present? Yes No	ired)
Type:	ne) riverine) ine) nagery (B7)	Salt Crust (B11)  Biotic Crust (B12)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Li  Presence of Reduced Iron (C4)  Recent Iron Reduction in Plowe  Other (Explain in Remarks)	ving Roots (C	Second  Second  Second  Dri  Dri  Cra  Sal	Present? Yes No	ired)
Type:	ne) riverine) nagery (B7) s No _ s No _	Salt Crust (B11)  Biotic Crust (B12)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Li  Presence of Reduced Iron (C4)  Recent Iron Reduction in Plowe  Other (Explain in Remarks)	ving Roots (C	Second  Second  Second  Dri  Dri  Cra  Sal	Present? Yes No	ired)
Type:	ne) riverine) nagery (B7) s No _ s No _	Salt Crust (B11)  Biotic Crust (B12)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Li  Presence of Reduced Iron (C4)  Recent Iron Reduction in Plowe  Other (Explain in Remarks)	ving Roots (C	Second  We Se  Dri  Dry  Thi  Cra  Sat	Present? YesNo  Present? YesNo  Present? YesNo  Present? YesNo  Present? YesNo  Present? YesNo  Present Marks (B1) (Riverine)  Present Marks (B3) (Riverine)  Present (B10)  Present? (B10)  Present (B10)  Pres	ired)

US Army Corps of Engineers

Remarks:

Project/Site: Panache Roac	1 Brids	2	City/Co	ounty:	an Benito	Sampling Date:	7/6/201
Applicant/Owner:	to cunt	W			State: C-4	Compiles Date	LL.
Investigator(s): M', ke True	chlood	<i></i>	Section	n, Township, I	Range:		
Landform (hillstope, terrace, etc.):			Local	relief (concav	9. CONVEX. none):	Slov	no /9/ \.
Subregion (LRR):		Lat:	_	•	Long:	510]	Je (%):
Solf Map Unit Name:							
Are climatic / hydrologic conditions on the					NWI clas	silication:	
Are Vegetation, Soil, or h	lvdrology	significantly	disturb				,
Are Vegetation, Soil, or H					e *Normal Circumstance		No
SUMMARY OF FINDINGS - Att				•	needed, explain any and		atures, etc
Hydrophytic Vegetation Present?	Yes _ <b>√</b> _						
Hydric Soil Present?	Yes	No		Is the Sample		,	
Wetland Hydrology Present?	Yes	No	١ ا	within a Weti	and? Yes _	✓ No	
Remarks:							
VEGETATION		Absolute	0				
<u>Tree Ştratum</u> (Use scientific names.)		Absolute <u>% Cover</u>	Specie	iant Indicator es? <u>Status</u>	Dominance Test w		
1. Salix lastalepis		6090	Yes	S Face	Number of Dominant That Are OBL, FACV	N. or FAC:	(A)
2					Total Number of Dor		(^)
3	<del></del>				Species Across All S		(B)
4.					Percent of Dominant	Species I	
Sapling/Shrub Stratum	Total Cove	r: <u>Go'is</u>			That Are OBL, FACV	V, or FAC: OC	//O (A/B)
1					Prevalence Index w	orksheet:	
2					Total % Cover of	f: Multiply I	by:
3					OBL species	x1=	
4						x 2 =	
5		- ——				x3=	
Herb Stratum	Total Cover	r:				×4=	
1. Ludwigsa peplerches		20%	4-05	ObL	OPL species	x5=	
2. Aryamesta duclasti		0101	~0	Face	Column Totals:	(A)	—— (B)
3. Juneus 25 Susus		300	لوبع	Obi	Prevalence Inde	ex = B/A =	
4					Hydrophytic Vegeta		
5					✓ Dominance Test	• •	
6					Prevalence Index		i
7	<del></del> -	<del></del> -			Morphological Add	laptations <sup>1</sup> (Provide su ks or on a separate sh	pporting
o	Total Cover:	6,50			Problematic Hydr		
Woody Vine Stratum	Total Cover	40/0				aprijus i agotuusii (E	Apiditi)
1					<sup>1</sup> Indicators of hydric se	oil and wetland hydrok	ov must
2					be present.		3,
	Total Cover:				Hydrophytic		
% Bare Ground in Herb Stratum	% Cover	of Biotic Cru	st _		Vegetation Present?	es No	
Remarks:					,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		

Profile Description: (Describe to the de	Redox Features		
(inches) Color (moist) %	Color (moist) % Type <sup>1</sup>	Loc <sup>2</sup> Textu	re Remarks
			To Inglial as
· · · · · · · · · · · · · · · · · · ·			
			<del></del>
<del></del>		<del></del>	<del></del>
Type: C=Concentration, D=Depletion, RM	I=Reduced Matrix. <sup>2</sup> Location: PL=Pore	Lining, RC=Root C	Channel, M=Matrix.
lydric Soll Indicators: (Applicable to al	LRRs, unless otherwise noted.)		ators for Problematic Hydric Soils <sup>3</sup> :
Histosoi (A1)	Sandy Redox (S5)		cm Muck (A9) (LRR C)
Histic Eplpedon (A2)	Stripped Matrix (S6)		cm Muck (A10) (LRR B)
Black Histic (A3)	Loamy Mucky Mineral (F1)		educed Vertic (F18)
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)		ed Parent Material (TF2)
Stratified Layers (A5) (LRR C)	Depleted Matrix (F3)		ther (Explain in Remarks)
1 cm Muck (A9) (LRR D)	Redox Dark Surface (F6)		(
Depleted Below Dark Surface (A11)	Dapleted Dark Surface (F7)		
_ Thick Dark Surface (A12)	Redox Depressions (F8)		
Sandy Mucky Mineral (S1)	Vernal Pools (F9)	<sup>3</sup> Indica	itors of hydrophytic vegetation and
Sandy Gieyed Matrix (S4)			land hydrology must be present.
			3, 3,
estrictive Layer (if present):			
estrictive Layer (if present):  Type:			<b>1</b>
_	- nuter too deep.	Hydric	Soli Present? Yes No
Type: Depth (inches):	- nuter too dup.	Hydric	Soli Present? Yes No
Type: Depth (inches):	- nuter too dup.	Hydric	Soli Present? Yes <u>V</u> No
Type: Depth (Inches): emarks: Soil pit nut dug	- nuter too day.		
Type:			econdary Indicators (2 or more required)
Type: Depth (inches): emarks: Soil pit nut dug  (DROLOGY etland Hydrology Indicators: imary Indicators (any one indicator is suffice	dent)		econdary Indicators (2 or more required) _ Water Marks (B1) (Riverine)
Type: Depth (inches): emarks: Soil pit nut dvg  [DROLOGY etland Hydrology Indicators: imary Indicators (any one indicator is suffice Surface Water (A1)	cient) Salt Crust (B11)		econdary Indicators (2 or more required)  Water Marks (B1) (Riverine)  Sediment Deposits (B2) (Riverine)
Type:	cient) Salt Crust (B11) Blotic Crust (B12)		econdary Indicators (2 or more required) _ Water Marks (B1) (Riverine)
Type:	dent) Salt Crust (B11) Blotic Crust (B12) Aquatic Invertebrates (B13)		econdary Indicators (2 or more required)  Water Marks (B1) (Riverine)  Sediment Deposits (B2) (Riverine)
Type:	dent)  Salt Crust (B11)  Blotic Crust (B12)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)	Se	econdary Indicators (2 or more required)  Water Marks (B1) (Riverine)  Sediment Deposits (B2) (Riverine)  Drift Deposits (B3) (Riverine)
Type:	dent) Salt Crust (B11) Blotic Crust (B12) Aquatic Invertebrates (B13)		econdary Indicators (2 or more required)  Water Marks (B1) (Riverine)  Sediment Deposits (B2) (Riverine)  Drift Deposits (B3) (Riverine)  Drainage Pattems (B10)  Dry-Season Water Table (C2)
Type:	dent)  Salt Crust (B11)  Blotic Crust (B12)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)		econdary Indicators (2 or more required)  Water Marks (B1) (Riverine)  Sediment Deposits (B2) (Riverine)  Drift Deposits (B3) (Riverine)  Drainage Pattems (B10)  Dry-Season Water Table (C2)  Thin Muck Surface (C7)
Type:	dent)  Salt Crust (B11) Blotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Ling Presence of Reduced Iron (C4)	ring Roots (C3)	econdary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Pattems (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8)
Type:	Salt Crust (B11)  Salt Crust (B11)  Blotic Crust (B12)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Live Presence of Reduced Iron (C4)  Recent Iron Reduction in Piowed	ring Roots (C3)	econdary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Pattems (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C
Type:	Salt Crust (B11)  Salt Crust (B12)  Blotic Crust (B12)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Livente Control (C4)  Recent Iron Reduction in Plowed	ring Roots (C3)	econdary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Pattems (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C
Type:	Salt Crust (B11)  Salt Crust (B12)  Blotic Crust (B12)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Livente Control (C4)  Recent Iron Reduction in Plowed	ring Roots (C3)	econdary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Pattems (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C
Type:	Salt Crust (B11)  Blotic Crust (B12)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Lin  Presence of Reduced Iron (C4)  Recent Iron Reduction in Piowed  Other (Explain in Remarks)	ring Roots (C3)	econdary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Pattems (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C
Type:	Salt Crust (B11)  Blotic Crust (B12)  Aquatic invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Lin  Presence of Reduced Iron (C4)  Recent Iron Reduction in Plowed  Other (Explain in Remarks)	ring Roots (C3)	econdary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Pattems (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C
Type:	Salt Crust (B11)  Blotic Crust (B12)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Lic  Presence of Reduced Iron (C4)  Recent Iron Reduction in Piowed  Other (Explain in Remarks)  Depth (Inchas):	ring Roots (C3)	econdary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Pattems (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C3) Shallow Aquitard (D3) FAC-Neutral Test (D5)
Type:	Salt Crust (B11)  Blotic Crust (B12)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Lin  Presence of Reduced Iron (C4)  Recent Iron Reduction in Piowed  Other (Explain in Remarks)  Depth (Inchas):  Jysecs	ring Roots (C3)	econdary Indicators (2 or more required)  Water Marks (B1) (Riverine)  Sediment Deposits (B2) (Riverine)  Drift Deposits (B3) (Riverine)  Drainage Pattems (B10)  Dry-Season Water Table (C2)  Thin Muck Surface (C7)  Crayfish Burrows (C8)  Saturation Visible on Aerial Imagery (C3)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)
Type:	Salt Crust (B11)  Blotic Crust (B12)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Lin  Presence of Reduced Iron (C4)  Recent Iron Reduction in Piowed  Other (Explain in Remarks)  Depth (Inchas):  Jysecs	ring Roots (C3)	econdary Indicators (2 or more required)  Water Marks (B1) (Riverine)  Sediment Deposits (B2) (Riverine)  Drift Deposits (B3) (Riverine)  Drainage Pattems (B10)  Dry-Season Water Table (C2)  Thin Muck Surface (C7)  Crayfish Burrows (C8)  Saturation Visible on Aerial Imagery (C3)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)
Type:	Salt Crust (B11)  Blotic Crust (B12)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Lin  Presence of Reduced Iron (C4)  Recent Iron Reduction in Piowed  Other (Explain in Remarks)  Depth (Inchas):  Jysecs	ring Roots (C3)	econdary Indicators (2 or more required)  Water Marks (B1) (Riverine)  Sediment Deposits (B2) (Riverine)  Drift Deposits (B3) (Riverine)  Drainage Pattems (B10)  Dry-Season Water Table (C2)  Thin Muck Surface (C7)  Crayfish Burrows (C8)  Saturation Visible on Aerial Imagery (C3)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)
Type:	Salt Crust (B11)  Blotic Crust (B12)  Aquatic Invertebrates (B13)  Hydrogen Sulfide Odor (C1)  Oxidized Rhizospheres along Lin  Presence of Reduced Iron (C4)  Recent Iron Reduction in Piowed  Other (Explain in Remarks)  Depth (Inchas):  Jysecs	ring Roots (C3)	econdary Indicators (2 or more required)  Water Marks (B1) (Riverine)  Sediment Deposits (B2) (Riverine)  Drift Deposits (B3) (Riverine)  Drainage Pattems (B10)  Dry-Season Water Table (C2)  Thin Muck Surface (C7)  Crayfish Burrows (C8)  Saturation Visible on Aerial Imagery (C3)  Shallow Aquitard (D3)  FAC-Neutral Test (D5)

Project/Site: Panoche Roa	d Bridge	٧	City/C	Count	y: <b>S</b> c	<u> </u>	Benzt	o	_ Sampling Da	ate: _	7/G	/201
Applicant/Owner: Son Son	10 CONT	<b>^</b>					State:	CA	Sampling De	1-4-	4	
investigator(s): Mike Tru	kplood_	<i></i>	Section	on, T	ownship, F	Range	 ):		- ,	· · ·		
Landform (hilisiope, terrace, etc.):			Loca	ıl reife	f (concave	a. con	Vex none	١٠.		Sion	- /0/\	
Subregion (LRR):		Lat		•	. (	1,	000; HOHO;	,		эюр	<del>e</del> (%)	-
Soil Map Unit Name:						— -·	orig	NA (2 - 1 )	\	atun	n: —-	
Are climatic / hydrologic conditions on ti	he site trained for t	hin time of			/		^	IVVI CIASSII	ication:			
Are climatic / hydrologic conditions on the	ne ske typical for ti	nisume or ye	ear? Y	'es _							,	
Are Vegetation, Soil, or									present? Yes		N	lo
Are Vegetation, Soil, or SUMMARY OF FINDINGS - A									ers in Remarks			
			, 30111	- Pili	B bount	1000	RIOHS, L	ransect	s, importan	t tea	ture	s, etc
Hydrophytic Vegetation Present? Hydric Soil Present?	Yes		i	ts th	e Sample	d Are	a					
Wetland Hydrology Present?	Yes			with	in a Wetia	and?		Yes	Nov			
Remarks:	Yes I											
	upland do	intaporint	<b>→</b>									
VEGETATION	<del></del>											
Tree Stratum (Use scientific names.)		Absolute <u>% Cover</u>			Indicator	1	minance					
1						1 140	imber of Deat Are OB	ominant S	pecies	1		
2						1				-44-		(A)
3.						To	tai Numbe ecies Acro	r of Doml	nant	3		
4						1				_		(B)
Sapling/Shrub Stratum	Total Cove	r:				Pe	rcent of De at Are OB	ominant S L, FACW,	pecies or FAC:3	3	/0	(A/B)
1						Pro	evaience l	ndex wor	ksheet:			
2						_	Total %	Cover of:	Mult	tiply b	v:	_
3						OB	L species		x1=_			_
4									x2=_			
5		· ——							x3=_			
Herb Stratum	Total Cover	:							×4 = _			
1. Cynaden dectylch		50/4	400	•	Fac	UP	L species		x5=_			
Plantago lancerlata			Ar C		Face	Col	lumn Totai	s:	(A)			(B)
Holorarpa Vigata	·	301	Yat		UPL		Prevale	nce index	= B/A =			
1. Dremus hardeacous		2010	ار ا		Fact	Hve			n Indicators:	=		
Brassten high					UPL	-		ce Test is				
Apena Satura					VA		Prevalen					
·						-	Morpholo	gical Ada	otations1 (Provide	de su	pporti	ng
J						1			or on a separa			
Voody Vine Stratum	Total Cover:					ļ			hytic Vegetatio	·		<b>'</b>
•				<u> </u>		<sup>1</sup> Ind	licators of l present,	hydric soii	and wetland hy	/drolo	gy mu	ust
	Total Cover:			— -		<del></del>						
6 Bare Ground in Herb Stratum		of Biotic Cru	st			Veg	lrophytic etation sent?	Va-	No_	. ,		
Remarks:						. 10		162		<u></u>		

Profile Descr	ription: (Describe	to the donth	needed to docum	mané éha ia	dlagása		- 4b 2	Sampling Poir	1C
Depth	Matrix	to ale depth			dicator (	or contist	n the absence	e of Indicators.)	
(inches)	Color (moist)	%	Color (moist)	x Features %	Type	Loc²	Texture	Remarks	
0-6"	7.5 YR 3/2	100%					TOMOTO		
	7.0 [1.0 07.3	10071						Sandy lacen	
<del></del> -									
		· —— _							
		· ——			_				
					<u> </u>				
	•								<del></del> -
<del></del> -		<del></del>							
Type: C=Con	ncentration, D=Depi	etion, RM=Re	educed Matrix.	<sup>2</sup> Location: 1	PL=Pore	Lining, R	C=Root Chan	nei, M=Matrix.	
tydric Soli ini	dicators: (Appilca	ble to all LR	Rs, unless other	wise noted.	.)			for Problematic Hydric	Soiis <sup>3</sup> :
Histosoi (A	,		Sandy Redo	x (\$5)			1 cm N	Muck (A9) (LRR C)	
Histic Epip	• •		Stripped Ma					Muck (A10) (LRR B)	
Black Histi			Loamy Muck					ed Vertic (F18)	
Hydrogen : Stratified I	.ayers (A5) (LRR C	١	Loamy Gleye		2)			arent Materiai (TF2)	
•	(A9) (LRR D)	,	Depleted Ma		· A		Other	(Explain in Remarks)	
	Below Dark Surface	(A11)	Depleted Da						
-	Surface (A12)	( · · · · )	Redox Depre	•					
Sandy Muc	cky Minerai (\$1)		Vernal Poois		1		3indicators	of hydrophytic vegetation	) and
Sandy Gley	yed Matrix (S4)			•					
							wetland	NVCrology must be prese	ent
Restrictive Lay	yer (if present):			<u>-</u> .			wetland	hydrology must be prese	ent.
Туре:			_	<u> </u>	<u> </u>		wetland	hydrology must be prese	ent.
Туре:			_				wetland Hydric Soll		
Туре:			_						nt, No <u>√</u>
Type: Depth (inche			_						
Type: Depth (inche			_						
Type: Depth (inche			_						
Type: Depth (inche emarks:	es):								
Type: Depth (inche	es):		-		-				
Type: Depth (inche emarks:  /DROLOGY	es):						Hydric Soll	Present? Yes	. No <u>√</u>
Type: Depth (inche emarks:  'DROLOGY   etiand Hydroirimary Indicato	es):		1)				Hydric Soll Second	Present? Yes	No
Type: Depth (inche emarks:  /DROLOGY / etland Hydroimary Indicato Surface Wall	es):  fiogy Indicators: ors (any one indicators) oter (A1)		t)Salt Crust (E	311)			Hydric Soll  Second	Present? Yes  dary Indicators (2 or more dary Marks (B1) (Rivering dary Indicators (B1))	No
Type: Depth (inche emarks:  'DROLOGY   etiand Hydroirimary Indicato	es):  fiogy Indicators: ors (any one indicators) oter (A1)						Second  Second  Second	Present? Yes	No
Type:	iogy Indicators: ers (any one indicate ster (A1) Table (A2)	or is sufficient	Salt Crust (E	(B12)	113)		Second W: Se Dr	dary Indicators (2 or more dairy Marks (B1) (Rivering ediment Deposits (B2) (Rivering for Deposits (B3) (Rivering	No
Type: Depth (inche emarks:  **TDROLOGY**  **Torontomary Indicato	riogy Indicators: ors (any one indicators) ter (A1) Table (A2) A3) s (B1) (Nonriverine	or is sufficient	Salt Crust (E	(B12) rtebrates (B			Second W. Second Dr. Dr.	dary Indicators (2 or more dater Marks (B1) (Rivering ediment Deposits (B2) (Rivering the Deposits (B3) (Rivering the Deposits (B3))	e required) e) iverine)
Type:	riogy Indicators: ers (any one indicate ster (A1) Table (A2) A3) s (B1) (Nonriverine	or is sufficient e) verine)	Salt Crust (E Biotic Crust Aquatic inve Hydrogen St Oxidized Rhi	(B12) rtebrates (B uifide Odor ( izospheres a	(C1) aiong Liv	ving Roots	Second We Se Dri	dary Indicators (2 or more dater Marks (B1) (Rivering diment Deposits (B2) (Rivering dimage Patterns (B10) ry-Season Water Table (C	e required) e) iverine)
Type:	riogy Indicators: ers (any one indicate ster (A1) Table (A2) A3) s (B1) (Nonriverine eposits (B2) (Nonriverine ts (B3) (Nonriverine	or is sufficient e) verine)	Salt Crust (E Biotic Crust Aquatic inve Hydrogen St Oxidized Rhi Presence of	(B12) rtebrates (B uifide Odor ( izospheres a Reduced iro	(C1) aiong Liv on (C4)		Second  Second  Second  Dri  Dri  Cri  (C3) Th	dary Indicators (2 or more dater Marks (B1) (Rivering diment Deposits (B2) (Rivering diment Deposits (B3) (Rivering diment D	e required) e) iverine)
Type:	riogy Indicators: ers (any one indicate ster (A1) Table (A2) A3) s (B1) (Nonriverine eposits (B2) (Nonri ts (B3) (Nonriverine	or is sufficient o) verine)	Salt Crust (E Biotic Crust Aquatic inve Hydrogen St Oxidized Rhi	(B12) rtebrates (B uifide Odor ( izospheres a Reduced iro	(C1) aiong Liv on (C4)		Second Se	dary Indicators (2 or mondater Marks (81) (Rivering ediment Deposits (82) (Rivering ediment Deposits (83) (Rivering ediment Ed	e required) e) iverine) ne)
Type:	iogy Indicators: ors (any one indicator) ter (A1) Table (A2) A3) s (B1) (Nonriverine) eposits (B2) (Nonriverine) ts (B3) (Nonriverine) (Cracks (B6) /isible on Aerial ima	or is sufficient o) verine)	Salt Crust (E Biotic Crust Aquatic inve Hydrogen St Oxidized Rhi Presence of	(B12) rtebrates (B uifide Odor ( izospheres a Reduced iro Reduction ir	(C1) aiong Liv on (C4) n Piowed		Second Se	dary Indicators (2 or more dater Marks (B1) (Rivering ediment Deposits (B2) (Rivering ediment Deposits (B10) (Rivering ediment Deposits (B2) (Rivering ediment Deposits (B10) (Riv	e required) e) iverine) ne)
Type:	riogy Indicators: ers (any one indicate ster (A1) Table (A2) A3) s (B1) (Nonriverine eposits (B2) (Nonri ts (B3) (Nonriverine	or is sufficient o) verine)	Salt Crust (E Biotic Crust Aquatic inve Hydrogen Si Oxidized Rhi Presence of Recent Iron	(B12) rtebrates (B uifide Odor ( izospheres a Reduced iro Reduction ir	(C1) aiong Liv on (C4) n Piowed		Second  Second  Second  Dr. Cr. (C3) Th. Cr. Si) Sa Sh	dary Indicators (2 or more dater Marks (B1) (Rivering ediment Deposits (B2) (Rivering rainage Patterns (B10) ry-Season Water Table (Ca) and Muck Surface (C7) rayfish Burrows (C8) aturation Visible on Aerial railow Aquitard (D3)	e required) e) iverine) ne)
Type:	riogy Indicators: ors (any one indicators: ors (any one indicators) ors (B1) (Nonriverine eposits (B2) (Nonriverine ts (B3) (Nonriverine Cracks (B6) //sible on Aerial ima ed Leaves (B9)	or is sufficient o) verine)	Salt Crust (E Biotic Crust Aquatic inve Hydrogen Si Oxidized Rhi Presence of Recent Iron	(B12) rtebrates (B uifide Odor ( izospheres a Reduced iro Reduction ir	(C1) aiong Liv on (C4) n Piowed		Second  Second  Second  Dr. Cr. (C3) Th. Cr. Si) Sa Sh	dary Indicators (2 or more dater Marks (B1) (Rivering ediment Deposits (B2) (Rivering ediment Deposits (B10) (Rivering ediment Deposits (B2) (Rivering ediment Deposits (B10) (Riv	e required) e) iverine) ne)
Type:	riogy Indicators: ers (any one indicate ster (A1) Table (A2) A3) s (B1) (Nonriverine eposits (B2) (Nonriverine ts (B3) (Nonriverine Cracks (B6) /isible on Aeriai ima ed Leaves (B9) ons:	or is sufficient  s) verine) e)	Salt Crust (E Biotic Crust Aquatic inve Hydrogen Si Oxidized Rhi Presence of Recent Iron	(B12) rtebrates (B ulfide Odor ( izospheres a Reduced iro Reduction ir in Remark	(C1) along Liv on (C4) n Plowed ks)		Second  Second  Second  Dr. Cr. (C3) Th. Cr. Si) Sa Sh	dary Indicators (2 or more dater Marks (B1) (Rivering ediment Deposits (B2) (Rivering rainage Patterns (B10) ry-Season Water Table (Ca) and Muck Surface (C7) rayfish Burrows (C8) aturation Visible on Aerial railow Aquitard (D3)	e required) e) iverine) ne)
Type:	riogy Indicators: ors (any one indicate ster (A1) Table (A2) A3) s (B1) (Nonriverine eposits (B2) (Nonriverine (Cracks (B6) //sible on Aerial ima ed Leaves (B9) ons: resent? Yes	or is sufficient  verine)  e)  geny (B7)	Salt Crust (E Biotic Crust Aquatic inve Hydrogen St Oxidized Rhi Presence of Recent Iron to	(B12) rtebrates (B ulfide Odor ( izospheres a Reduced iro Reduction ir in Remark	(C1) along Liv on (C4) n Plowed ks)		Second  Second  Second  Dr. Cr. (C3) Th. Cr. Si) Sa Sh	dary Indicators (2 or more dater Marks (B1) (Rivering ediment Deposits (B2) (Rivering rainage Patterns (B10) ry-Season Water Table (Ca) and Muck Surface (C7) rayfish Burrows (C8) aturation Visible on Aerial railow Aquitard (D3)	e required) e) iverine) ne)
Type:	fogy Indicators: ers (any one indicate ster (A1) Table (A2) A3) s (B1) (Nonriverine eposits (B2) (Nonriverine ts (B3) (Nonriverine Cracks (B6) //sible on Aerial ima ed Leaves (B9) ons: resent? Yes sent? Yes	or is sufficient  verine)  e)  gery (B7)	Salt Crust (E Biotic Crust Aquatic inve Hydrogen St Oxidized Rhi Presence of Recent Iron Other (Expla	(B12) rtebrates (B ulfide Odor ( izospheres a Reduced iro Reduction ir in in Remari	(C1) along Liv on (C4) n Plowed ks)	I Soils (C6	Second Se	dary Indicators (2 or more dater Marks (B1) (Rivering ediment Deposits (B2) (Rivering rainage Patterns (B10) ry-Season Water Table (Ca) and Muck Surface (C7) rayfish Burrows (C8) aturation Visible on Aerial railow Aquitard (D3)	e required) e) iverine) ne)

Remarks:

Project/Site: Panache Roac	1 Brid	· R	City/C	County:	an Benito	Sampling Date:	7/6/2011
Applicant/Owner: San Isana	To (cun)	<u> </u>			State: CA	Sampling Points	7
Investigator(s): Mike True	chlood		Section	n. Township.	Range:	Camping Form.	
Landform (hillsiope, terrace, etc.):			Local	relief (concav	8 CORVEY name):		
Subregion (LRR):		l at·		TORIOT (COLLCAY)	e, convex, none).	Sio	pe (%):
Soll Map Unit Name		Lat		· <del></del>	Long;	Datu	m:
Soll Map Unit Name:	o sito trainel for	46-1-45	- 0 1/		NWI class	fication:	
Are climatic / hydrologic conditions on the	e site typical for	unis time of ye	eary ye				,
Are Vegetation, Soil, or H					e "Normal Circumstances		No
Are Vegetation, Soil, or H SUMMARY OF FINDINGS - Att				•	needed, explain any ansv		-4
				pg p		is, important le	atures, etc.
Hydrophytic Vegetation Present? Hydric Soil Present?	Yes			is the Sample	ed Area		
Wetland Hydrology Present?	Yes <b>V</b>		Ì	within a Weti	and? Yes_\	No	
Remarks:		140					·
ļ							
<u> </u>							
VEGETATION							
Tree Stratum (Use scientific names.)		Absolute	Domi	nant Indicator	Dominance Test wor	ksheet:	
1		% Cover	Speci	ies? Status	I MOUNDS OF DOUBLEST	Species	
2.					That Are OBL, FACW	, or FAC:	(A)
3.					Total Number of Domi	nant	
4					.   Species Across All Stu		(B)
		er:			Percent of Dominant S	Species	4.
Sapling/Shrub Stratum					That Are OBL, FACW		<u>ාර්ට</u> (A/B)
1.					Prevalence Index wo		
2.					Total % Cover of:		
3					OBL species		
4 5					FACW species		
	Total Cove				FACUL species		
Herb Stratum					FACU species		
1. Sunces Ziphiaides		30,0	40	ObL	Column Totals:	X3	
2. Ly Thrum hysopisolium		3070	Yes			(^)	(B)
3. Paly posen monspeliensis		<u> </u>	NO			c = B/A =	
4. Runax crispus	<u> </u>	- <del>- 2</del> ]u.	<u> M</u> 6		Hydrophytic Vegetati		
5. Conjum maculatum			MG		✓ Dominance Test is		1
6. Tuncus bystematus			//9		Prevalence Index i		
7. <u>mimulus guttatus</u> 8. <u>Polyconum sp.</u>		590 1010	NO		Morphological Ada	ptations <sup>1</sup> (Provide si s or on a separate si	upporting
8. Polysoman sp.	Total Cours	. <u>واقا</u> م <u>دها</u> :	<u>^</u>	<u> 1d D</u>	Problematic Hydro		
Woody Vine Stratum	rotal Cove	107 4				project og okazion (a	-Apiaiii)
f,					Indicators of hydric sol	I and wetland hydroi	ogy must
2					be present.		- 3,
	Total Cover	:			Hydrophytic		
% Bare Ground in Herb Stratum	% Cover	of Biotic Cru	st		Vegetation Present? Yes	s No	
Remarks:					Liegesift 18:	8 NO	
							7

Depth _	Matrix		th needed to doc	ox Feature				o or marcators.
(inches)	Color (moist)		Color (moist)	%		Loc <sup>2</sup>	Texture	Remarks
0 - 17 11	IOYRYI	95%	7.5 YR 3/4	_ <u>\$</u> *		M		Sandy loan
ype: C=Cond	centration, D=Depi	etion, RM=	Reduced Matrix.	<sup>2</sup> Location:	PL=Por	Lining, R	C=Root Chan	nei, M=Matrix.
_ Histosoi (A			Sandy Red		.,			for Problematic Hydric Soils <sup>3</sup> :
_ Histic Epipe			Stripped M					Muck (A9) (LRR C) Muck (A10) (LRR B)
_ Black Histic	(A3)		Loamy Muc		(F1)			ed Vertic (F18)
_ Hydrogen S	Sulfide (A4)		Loamy Gie					arent Material (TF2)
	ayers (A5) (LRR C	)	Depieted M	latrix (F3)				(Explain in Remarks)
_ 1 cm Muck			→ Redox Darl					
	elow Dark Surface	(A11)	Depieted D					
	Surface (A12) ky Minerai (S1)		Redox Dep	•	8)			
	ed Matrix (\$4)		Vernai Pool	s (F9)				of hydrophytic vegetation and
	er (if present):						wetland	hydrology must be present.
							ľ	
				70			i	
Туре:		<u> </u>		81				, A .
			<del>-</del>	8	<del>-</del>		Hydric Soll	Present? Yes V No
Type: Depth (inches	s):						Hydric Soli	Present? Yes V No
Type: Depth (inchest) marks:	s):							•
Type: Depth (inchesemarks:  DROLOGY etland Hydroid	s):		ent)				Secon	dary Indicators (2 or more required)
Type:	s): ogy tndicators: s (any one indicato			R11)			Secon	dary Indicators (2 or more required) ater Marks (B1) (Riverine)
Type:	ogy tndicators: s (any one indicators)		Salt Crust (	-			<u>Secon</u> W Se	dary Indicators (2 or more required) ater Marks (B1) (Riverine) adiment Deposits (B2) (Riverine)
Type:	ogy Indicators: s (any one indicators (A1) Table (A2)		Salt Crust (	t (B12)	(R13)		<u>Secon</u> W Se Dr	dary indicators (2 or more required) ater Marks (B1) (Riverine) ediment Deposits (B2) (Riverine) rift Deposits (B3) (Riverine)
DROLOGY offand Hydroic mary Indicator Surface Wate High Water 1 Saturation (A	ogy Indicators: s (any one indicators (A1) Fable (A2)	or is sufficie	Salt Crust ( Biotic Crus Aquatic Inv	t (B12) ertebrates (		54	<u>Secon</u> W Se Dr Dr Dr	dary Indicators (2 or more required) ater Marks (B1) (Riverine) ediment Deposits (B2) (Riverine) rift Deposits (B3) (Riverine) ainage Pattems (B10)
Depth (inchesternarks:  DROLOGY otland Hydroid mary Indicator Surface Wate High Water T Saturation (A) Water Marks	ogy Indicators: s (any one indicators (A1) Fable (A2) (B1) (Nonriverine	or is sufficie	Salt Crust ( Biotic Crus Aquatic Inv Hydrogen S	t (B12) ertebrates ( Sulfi <b>d</b> e Odo	r (C1)	vina Poots	Secon W Se De De	dary Indicators (2 or more required) later Marks (B1) (Riverine) ediment Deposits (B2) (Riverine) rift Deposits (B3) (Riverine) lainage Pattems (B10) ly-Season Water Table (C2)
Depth (inchesemarks:  DROLOGY etland Hydroid mary Indicator Surface Wate High Water T Saturation (A) Water Marks Sediment De	ogy indicators: s (any one indicators) er (A1) Table (A2) (3) (B1) (Nonriverine posits (B2) (Nonri	or is sufficie	Salt Crust ( Biotic Crust Aquatic Inv Hydrogen S Oxidized R	t (B12) ertebrates ( Sulfi <b>de</b> Odo hizospheres	r (C1) s aiong Li	ving Roots	Secon  — W — Se — Dr — Dr — Dr	dary Indicators (2 or more required) ater Marks (B1) (Riverine) adiment Deposits (B2) (Riverine) rift Deposits (B3) (Riverine) rainage Pattems (B10) ry-Season Water Table (C2) nin Muck Surface (C7)
Depth (inchesemarks:  DROLOGY etland Hydroid mary Indicator Surface Wate High Water T Saturation (A) Water Marks Sediment De	ogy Indicators: s (any one indicators) er (A1) Table (A2) (B1) (Nonriverine posits (B2) (Nonriverine (B3) (Nonriverine (	or is sufficie	Salt Crust ( Biotic Crust Aquatic Inv Hydrogen S Oxidized Ri	t (B12) ertebrates ( Sulfide Odo hizosphere f Reduced	r (C1) s aiong Li iron (C4)		Secon  — W  — Se  — Dr  — Dr  — Cr	dary indicators (2 or more required) ater Marks (B1) (Riverine) adiment Deposits (B2) (Riverine) atinage Pattems (B10) y-Season Water Table (C2) ayfish Burrows (C8)
Depth (inchesemarks:  DROLOGY  ettand Hydroid mary Indicator Surface Water High Water T  Saturation (A Water Marks Sediment De Drift Deposits Surface Soil	ogy Indicators: s (any one indicators) er (A1) Table (A2) (B1) (Nonriverine inposits (B2) (Nonriverine in GB3)	or is sufficie	Salt Crust ( Biotic Crust Aquatic Inv Hydrogen S Oxidized R Presence o	t (B12) ertebrates ( Sulfide Odo hizospheres f Reduced i Reduction	r (C1) s aiong Li iron (C4) In Plowe		Secon  W Se Dr Dr Dr Dr Cr Cr Si) Se	dary Indicators (2 or more required) ater Marks (B1) (Riverine) adiment Deposits (B2) (Riverine) rift Deposits (B3) (Riverine) rainage Pattems (B10) ry-Season Water Table (C2) rin Muck Surface (C7) ayfish Burrows (C8) aturation Visible on Aerial imagery (C)
Depth (inchest)  DROLOGY  Ottand Hydroic  mary Indicator  Surface Wate  High Water Tale  Saturation (A  Water Marks  Sediment De  Drift Deposits  Surface Soil  inundation Vi	ogy Indicators: s (any one indicators) (b) (b) (c) (c) (d) (d) (d) (d) (e) (e) (e) (e) (e) (e) (e) (e) (e) (e	or is sufficie	Salt Crust ( Biotic Crust Aquatic Inv Hydrogen S Oxidized Ri	t (B12) ertebrates ( Sulfide Odo hizospheres f Reduced i Reduction	r (C1) s aiong Li iron (C4) In Plowe		Secon  W Secon Description Description Cr Secon Secon Secon Secon	dary Indicators (2 or more required) after Marks (B1) (Riverine) adiment Deposits (B2) (Riverine) aft Deposits (B3) (Riverine) afnage Pattems (B10) y-Season Water Table (C2) after Muck Surface (C7) ayfish Burrows (C8) atturation Visible on Aerial imagery (Caliow Aquitard (D3)
Depth (inches  Depth (inches  DROLOGY  Stand Hydroid  Mary Indicator  Surface Wate  High Water Tarks  Saturation (A  Water Marks  Sediment De  Drift Deposits  Surface Soil  Inundation Vi	ogy Indicators: s (any one indicators) fable (A2) (B1) (Nonriverine posits (B2) (Nonriverine (B3) (Nonriverine (B3) (Nonriverine (B3) (Nonriverine (B3) (Nonriverine (B4) (B6) (B5) (B6)	or is sufficie	Salt Crust ( Biotic Crust Aquatic Inv Hydrogen S Oxidized R Presence o	t (B12) ertebrates ( Sulfide Odo hizospheres f Reduced i Reduction	r (C1) s aiong Li iron (C4) In Plowe		Secon  W Secon Description Description Cr Secon Secon Secon Secon	dary Indicators (2 or more required) ater Marks (B1) (Riverine) adiment Deposits (B2) (Riverine) rift Deposits (B3) (Riverine) rainage Pattems (B10) ry-Season Water Table (C2) rin Muck Surface (C7) ayfish Burrows (C8) aturation Visible on Aerial imagery (C)
Depth (inchesemarks:  DROLOGY  atland Hydroid mary Indicator Surface Water High Water To Saturation (A) Water Marks Sediment De Drift Deposits Surface Soil (inundation Vi) Water-Staine	ogy Indicators: s (any one indicators) (B1) (Nonriverine) (B3) (Nonriverine) (B3) (Nonriverine) (B3) (Nonriverine) (Cracks (B6) (Sible on Aeriai Imald Leaves (B9) (Nons)	or is sufficie o) verine) e) gery (B7)	Saft Crust ( Biotic Crust Aquatic Inv Hydrogen S Oxidized Ri Presence o Recent Iron Other (Expi	t (B12) ertebrates ( Sulfide Odo hizospheres f Reduced Reduction ain in Rema	r (C1) s aiong Li iron (C4) In Plowe		Secon  W Secon Description Description Cr Secon Secon Secon Secon	dary Indicators (2 or more required) after Marks (B1) (Riverine) adiment Deposits (B2) (Riverine) aft Deposits (B3) (Riverine) afnage Pattems (B10) y-Season Water Table (C2) after Muck Surface (C7) ayfish Burrows (C8) atturation Visible on Aerial imagery (Caliow Aquitard (D3)
Depth (inchesemarks:  DROLOGY  estland Hydroid mary Indicator Surface Water High Water Tarks Sediment De Drift Deposits Surface Soil of inundation Vi Water-Staine id Observation face Water Presented	ogy indicators: s (any one indicators) (B1) (Nonriverine) (B1) (Nonriverine) (B3) (Nonriverine) (Cracks (B6) (Sible on Aerial Imad Leaves (B9) (Deaves (B9) (Deav	or is sufficiently by verine)  gery (B7)	Saft Crust ( Biotic Crust Aquatic Inv Hydrogen S Oxidized Ri Presence o Recent Iron Other (Expi	t (B12) ertebrates ( Sulfide Odo hizospheres f Reduced Reduction ain in Rema	r (C1) s aiong Li iron (C4) In Plowe arks)		Secon  W Secon Description Description Cr Secon Secon Secon Secon	dary Indicators (2 or more required) after Marks (B1) (Riverine) adiment Deposits (B2) (Riverine) aft Deposits (B3) (Riverine) afnage Pattems (B10) y-Season Water Table (C2) after Muck Surface (C7) ayfish Burrows (C8) atturation Visible on Aerial imagery (Caliow Aquitard (D3)
Type:	ogy indicators: s (any one indicators) s (any one indicators) er (A1) Table (A2) table (A2) table (B1) (Nonriverine) posits (B2) (Nonriverine) table (B3) (Nonriverine) table on Aerial Imald Leaves (B9)	pr is sufficiently by verine)  gery (B7)  No.	Saft Crust ( Biotic Crust ( Aquatic Inv Hydrogen S Oxidized Ri Presence o Recent Iron Other (Expi	t (B12) ertebrates ( Sulfide Odo hizospheres f Reduced i Reduction ain in Remaines):	r (C1) s along Li iron (C4) In Plower arks)  Face	d Soils (Ce	Secon  W Se Dr Dr Cr S(C3) Th Cr S) Se Sh FA	dary Indicators (2 or more required) after Marks (B1) (Riverine) adiment Deposits (B2) (Riverine) aft Deposits (B3) (Riverine) afnage Pattems (B10) y-Season Water Table (C2) after Muck Surface (C7) ayfish Burrows (C8) atturation Visible on Aerial imagery (Caliow Aquitard (D3)
Type:	ogy indicators: s (any one indicators) s (any one indicators) er (A1) Table (A2) table (A2) table (B1) (Nonriverine) posits (B2) (Nonriverine) table (B3) (Nonriverine) table on Aerial Imald Leaves (B9)	pr is sufficiently by verine)  gery (B7)  No.	Saft Crust ( Biotic Crust Aquatic Inv Hydrogen S Oxidized Ri Presence o Recent Iron Other (Expi	t (B12) ertebrates ( Sulfide Odo hizospheres f Reduced i Reduction ain in Remaines):	r (C1) s along Li iron (C4) In Plower arks)  Face	d Soils (Ce	Secon  W Se Dr Dr Cr S(C3) Th Cr S) Se Sh FA	dary Indicators (2 or more required) ater Marks (B1) (Riverine) adiment Deposits (B2) (Riverine) alnage Pattems (B10) y-Season Water Table (C2) ain Muck Surface (C7) ayfish Burrows (C8) attration Visible on Aerial imagery (Caliow Aquitard (D3) aC-Neutral Test (D5)
Type:	ogy indicators: s (any one indicators) s (any one indicators) er (A1) Table (A2) table (A2) table (B1) (Nonriverine) posits (B2) (Nonriverine) table (B3) (Nonriverine) table on Aerial Imald Leaves (B9)	pr is sufficiently by verine)  gery (B7)  No.	Saft Crust ( Biotic Crust ( Aquatic Inv Hydrogen S Oxidized Ri Presence o Recent Iron Other (Expi	t (B12) ertebrates ( Sulfide Odo hizospheres f Reduced i Reduction ain in Remaines):	r (C1) s along Li iron (C4) In Plower arks)  Face	d Soils (Ce	Secon  W Se Dr Dr Cr S(C3) Th Cr S) Se Sh FA	dary Indicators (2 or more required) ater Marks (B1) (Riverine) adiment Deposits (B2) (Riverine) alnage Pattems (B10) y-Season Water Table (C2) ain Muck Surface (C7) ayfish Burrows (C8) attration Visible on Aerial imagery (Caliow Aquitard (D3) aC-Neutral Test (D5)
Depth (inches amarks:  DROLOGY  atland Hydroic mary Indicator Surface Water High Water I Saturation (A Water Marks Sediment De Drift Deposits Surface Soil inundation Vi Water-Staine id Observation face Water Pre- ter Table Preservation Present udes capilliary cribe Recorde	ogy indicators: s (any one indicators) s (any one indicators) er (A1) Table (A2) table (A2) table (B1) (Nonriverine) posits (B2) (Nonriverine) table (B3) (Nonriverine) table on Aerial Imald Leaves (B9)	pr is sufficiently by verine)  gery (B7)  No.	Saft Crust ( Biotic Crust ( Aquatic Inv Hydrogen S Oxidized Ri Presence o Recent Iron Other (Expi	t (B12) ertebrates ( Sulfide Odo hizospheres f Reduced i Reduction ain in Remaines):	r (C1) s along Li iron (C4) In Plower arks)  Face	d Soils (Ce	Secon  W Se Dr Dr Cr S(C3) Th Cr S) Se Sh FA	dary Indicators (2 or more required) ater Marks (B1) (Riverine) adiment Deposits (B2) (Riverine) alnage Pattems (B10) y-Season Water Table (C2) ain Muck Surface (C7) ayfish Burrows (C8) attration Visible on Aerial imagery (Caliow Aquitard (D3) aC-Neutral Test (D5)

Applicant/Owner: San Benito (cunty Investigator(s): Mike Trueblood  Landform (hillslope, terrace, etc.):  Subregion (LRR): Lat:  Solf Map Unit Name:  Are climatic / hydrologic conditions on the site typical for this time of Are Vegetation Soil or Hydrology naturally proceedings of Hydrology naturally proceedings of Hydrophytic Vegetation Present? Yes No Hydroc Soil Present? Yes No Wetland Hydrology Present? Yes No Planch Remarks:  VEGETATION  Tree Stratum (Use scientific names.) Absolute % Cover 2. Salix (asselunts) 3. 3.  4. Total Cover: Scientific Stratum  1. Bay herrs salisibilis 30%.  Lat:  Saning/Shrub Stratum  1. Cover: Scientific names 3. 3.  Herb Stratum  1. Uritica dissica 10%.	year? You the distriction of the control of the con	relief (concavers) relief (conca	Range:    State:
Investigator(s):	year? Yity disturt problemang sam	n, Township, relief (concavers)  ssNo ped? Are tic? (If pling point is the Sample within a Wetler Status  VI)	Range:  Ye, convex, none):  Long:  NWI classification:  (If no, explain in Remarks.)  re "Normal Circumstances" present? Yes Voo  f needed, explain any answers in Remarks.)  t locations, transects, important features, etc.  ded Area  cland?  Yes  No  Dominance Test worksheet:  Number of Dominant Species That Are OBL, FACW, or FAC:  Percent of Dominant Species That Are OBL, FACW, or FAC:  Percent of Dominant Species That Are OBL, FACW, or FAC:  Percent of Dominant Species That Are OBL, FACW, or FAC:  (A)  Percent of Dominant Species That Are OBL, FACW, or FAC:  (B)
Landform (hillslope, terrace, etc.):  Subregion (LRR):	year? Yity disturt problemang sam	relief (concavers)  as No ped? Artic? (If pling point within a Wetler within a Wetler Status VI) Factor [as?]	Long:
Subregion (LRR):  Soll Map Unit Name:  Are climatic / hydrologic conditions on the site typical for this time of Are Vegetation  Soil or Hydrology significant are Vegetation Soil or Hydrology naturally provided in the site map showing summary of Findings - Attach site map showing summary of Findings - Attach site map showing hydrocomplete yes No Hydric Soil Present?  Wetland Hydrology Present? Yes No Yes Yes No Yes Yes No Yes	year? Your dity disturb problemang sam	es No ped? Ar tic? (If pling point Is the Sample within a Wetl mant Indicator les? Status VI) Face Face	Long: NWI classification: NWI classification: (If no, explain in Remarks.)  re "Normal Circumstances" present? Yes No  Ineeded, explain any answers in Remarks.)  t locations, transects, important features, etc.  led Area cland? Yes No   Total Number of Dominant Species That Are OBL, FACW, or FAC: (A)  Total Number of Dominant Species That Are OBL, FACW, or FAC: (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
Solf Map Unit Name:  Are climatic / hydrologic conditions on the site typical for this time of Are Vegetation, Soil or Hydrology significant Are Vegetation, Soil or Hydrology naturally present of the site map showing summary of FINDINGS - Attach site map showing summary of Hydrophytic Vegetation Present?  Hydrophytic Vegetation Present?	year? Your dity disturb or oblema and same and s	es No ped? Ar tic? (If pling point Is the Sample within a Weti nant Indicator es? Status VI?L	NWI classification:    Dominance Test worksheet:   Number of Dominant Species That Are OBL, FACW, or FAC:   No     No   No   No   No   No     No   No
Are climatic / hydrologic conditions on the site typical for this time of Are Vegetation, Soil or Hydrology significant Are Vegetation, Soil or Hydrology naturally present, Soil or Hydrology naturally present, Soil or Hydrology naturally present, Soil or Hydrology, No, No	year? Yity disturboroblemang sam	nant Indicator	Total Number of Dominant Species That Are OBL, FACW, or FAC:  (If no, explain in Remarks.)  Pre "Normal Circumstances" present? Yes No  No  No  Dominance Test worksheet:  Number of Dominant Species That Are OBL, FACW, or FAC: (A)  Percent of Dominant Species That Are OBL, FACW, or FAC: (B)
Are Vegetation, Soil, or Hydrology significant Are Vegetation, Soil, or Hydrology naturally provided in the state of the sta	e Domi	pling point  Is the Sample within a Wetl  Inant Indicator ies? Status  VIPL  Face	re "Normal Circumstances" present? Yes No Ineeded, explain any answers in Remarks.)  It locations, transects, important features, etc.  It location
Are Vegetation, Soil, or Hydrology naturally proceed to the state of the state	e Domi	pling point  Is the Sample within a Wetl  mant Indicator es? Status VIPL Face	t locations, transects, important features, etc.  ded Area deland?  Percent of Dominant Species That Are OBL, FACW, or FAC:  Percent of Dominant Species That Are OBL, FACW, or FAC:  Percent of Dominant Species That Are OBL, FACW, or FAC:  Percent of Dominant Species That Are OBL, FACW, or FAC:  A B B B B B B B B B B B B B B B B B B
SUMMARY OF FINDINGS - Attach site map showin  Hydrophytic Vegetation Present? Hydric Soll Present? Wetland Hydrology Present? Wetland Hydrology Present?  Remarks:  VPlant  Tree Stratum (Use scientific names.)  1. Querces were instituted in the stratum  2. Salix (assolute): 3. 4.  Sapling/Shrub Stratum  1. Gay her is salisibilis 3. 7.  Herb Stratum  Total Cover: 30%  Herb Stratum  Total Cover: 30%	e Domi	pling point Is the Sample within a Wetl  mant Indicator ies? Status  VIII	t locations, transects, important features, etc.  ded Area  land? Yes No  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: & O /6 (A/B)
Hydrophytic Vegetation Present? Hydric Soll Present? Wetland Hydrology Present?  Wetland Hydrology Present?  Ves No  Remarks:  Violance  Absolute % Cove % Cove 2 Salix (associantific names.) 3. 4.  Sapling/Shrub Stratum 1. Bay hards salisibilia 3. 4.  Total Cover: 500%  Herb Stratum  Total Cover: 30%	e Domi	is the Sample within a Wetler in ant Indicator ies? Status VIII	Percent of Dominant Species That Are OBL, FACW, or FAC:  Percent of Dominant Species That Are OBL, FACW, or FAC:  Percent of Dominant Species That Are OBL, FACW, or FAC:  (A)  Percent of Dominant Species That Are OBL, FACW, or FAC:  (B)
Hydric Soll Present?  Wetland Hydrology Present?  Remarks:  VPlanck  I Planck  I Planck  Vision  Absolute % Cove % Cove 2. Solix (astolipt) 3. 4.  Sapling/Shrub Stratum 1. Box her is solisississ 2.  Herb Stratum  Total Cover: 30%  Total Cover: 30%	e Domi	mant Indicatories? Status VIPL Facu	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: Total Number of Dominant Species Across All Strata: Percent of Dominant Species That Are OBL, FACW, or FAC:  A (A)  Percent of Dominant Species That Are OBL, FACW, or FAC:  A (A/B)
Wetland Hydrology Present?  Remarks:  VPlanck  It is  VEGETATION  Tree Stratum (Use scientific names.)  1. Querces walinz: 2. Salix (astalents 3. 4.  Sapling/Shrub Stratum  1. Garbarts salisissis 2. 3. 4.  Total Cover:  3. 4.  Total Cover:  3. 4.  Total Cover:  3. 4. 5.  Total Cover:  3. 4.	e Domi	nant Indicatories? Status VIII Facu	Dominance Test worksheet:  Number of Dominant Species That Are OBL, FACW, or FAC:  Total Number of Dominant Species Across All Strata:  Percent of Dominant Species That Are OBL, FACW, or FAC:  (A)  (B)
Remarks:  VPlance R:  VEGETATION  Tree Stratum (Use scientific names.)  1. Querces walinz: 2. Salix (astrologis 3. 4.  Saoling/Shrub Stratum 1. Backer's salisibility 2. 3. 4. 5. Herb Stratum  Total Cover: 3c%	e Domi	nant Indicatories? Status VIPL FGCA	Number of Dominant Species That Are OBL, FACW, or FAC:  Total Number of Dominant Species Across All Strata:  Percent of Dominant Species That Are OBL, FACW, or FAC:  (A)  (B)
VEGETATION  Tree Stratum (Use scientific names.)  1. Quercus walinzii 20 9  2. Salix (ashe lepts 3)  3. 4. Total Cover: 60 9  2. Sapling/Shrub Stratum  1. Bacharis salisibalia 30 9  2. 3. 4. 5. Total Cover: 30 9  4. Total Cover: 30 9  4. Total Cover: 30 9  4. Total Cover: 30 9  5. Total Cover: 30 9  6. T	e Domi Spec	nant Indicatories? Status VIPL FGCA	Number of Dominant Species That Are OBL, FACW, or FAC:  Total Number of Dominant Species Across All Strata:  Percent of Dominant Species That Are OBL, FACW, or FAC:  (A)  (B)
Tree Stratum (Use scientific names.)  1. Querces walinzii  2. Salix lastelenis  3.  4.  Saoling/Shrub Stratum  1. Bacharis salisiisolia  2.  3.  Herb Stratum  Total Cover: 3c/6	Yes	es? Status VI)_ Factor	Number of Dominant Species That Are OBL, FACW, or FAC:  Total Number of Dominant Species Across All Strata:  Percent of Dominant Species That Are OBL, FACW, or FAC:  (A)  (B)
Tree Stratum (Use scientific names.)  1. Querces was inzi: 2. Salix (astrolopis 3. 4.  Saoling/Shrub Stratum 1. Garbarts salisibilis 2. 3. 4.  Herb Stratum  Total Cover: 3c%	Yes	es? Status VI)_ Factor	Number of Dominant Species That Are OBL, FACW, or FAC:  Total Number of Dominant Species Across All Strata:  Percent of Dominant Species That Are OBL, FACW, or FAC:  (A)  (B)
1. Queres walinzii 2. Salix lastelepis 3. 4.  Saoling/Shrub Stratum 1. Bay harts salisibilia 30% 2. 3. 4.  Herb Stratum  Total Cover: 30%	Vac	VPL Facu	That Are OBL, FACW, or FAC:  Total Number of Dominant Species Across All Strata:  Percent of Dominant Species That Are OBL, FACW, or FAC:  (A)  (B)
2. Salix laste lens 3. 4.  Sapling/Shrub Stratum 1. Bacharts salisibilis 2. 3. 4. 5. Herb Stratum  Total Cover: 3c%	Var	Facu	Total Number of Dominant Species Across All Strata:  Percent of Dominant Species That Are OBL, FACW, or FAC:  (8)
3. 4. Saoling/Shrub Stratum 1. Bay her 1s sall sibelia 30% 2. 3. 4. 5. Herb Stratum	i Yas	facu	Species Across All Strata:  Percent of Dominant Species That Are OBL, FACW, or FAC:  (B)  (B)
Saoling/Shrub Stratum  1. Box hor 15 sol, 515olin 307. 2. 3. 4. 5. Herb Stratum	i Yas	facu	Percent of Dominant Species That Are OBL, FACW, or FAC: 80 /6 (A/B)
Saoling/Shrub Stratum	Yas	facu	That Are OBL, FACW, or FAC: (A/B)
Saoling/Shrub Stratum	Yas	facu	That Are OBL, FACW, or FAC: XO /6 (A/B)
2.	- 10	facu	Dravalance Index wastebasts
3			Ligagiance index MOLK2D661:
4			Total % Cover of: Multiply by:
5			OBL species x 1 =
Herb Stratum			FACW species x2=
Herb Stratum			FAC species x3 =
1. Vrhca divica	_		FACU species x4 =
	Yec	Fach	UPL species x 5 =
2. Consis maculation 100	You	Feen	Column Totals: (A) (B)
3			Prevalence Index = B/A =
4.			Hydrophytic Vegetation Indicators:
5			
3			Prevalence Index is ≤3.0¹
7			Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
Total Cover: 20%	·		Problematic Hydrophytic Vegetation¹ (Explain)
Woody Vine Stratum	*		1
1			<sup>1</sup> Indicators of hydric soll and wetland hydrology must be present.
CTotal Cover:			
6 Bare Ground in Herb Stratum % Cover of Biotic Co			Hydrophytic Vegetation
Remarks:			Present? Yes No

Profile Description: (Descri	ribe to the depth	needed to document the indicator or co	Sampling Point: 5 a	
Depth Matr		Redox Features		
(inches) Color (moist	t) %	Color (moist) % Type Lo	c <sup>2</sup> Texture Remarks	
0-14" 104R2/2	10090			
			- clark sandy loan	
<sup>1</sup> Type: C=Concentration, D=D	Design PM-Po	dupod Motivis 21 postino DI Daniel		
Hydric Soil Indicators: (App	piicabie to ail LRI	Rs. uniess otherwise noted )	ng, RC=Root Channel, M=Matrix.	
Histosol (A1)		Sandy Redox (S5)	indicators for Problematic Hydric Solis <sup>3</sup> :	
Histic Epipedon (A2)		Stripped Matrix (S6)	1 cm Muck (A9) (LRR C) 2 cm Muck (A10) (LRR B)	
Black Histic (A3)		Loamy Mucky Mineral (F1)	Reduced Vertic (F18)	
Hydrogen Sulfide (A4)		Loamy Gleyed Matrix (F2)	Red Parent Material (TF2)	
Stratified Layers (A5) (LR	,	Depleted Matrix (F3)	Other (Explain In Remarks)	
1 cm Muck (A9) (LRR D) Depleted Below Dark Surf		Redox Dark Surface (F6)		
Thick Dark Surface (A12)		Depleted Dark Surface (F7) Redox Depressions (F8)		
Sandy Mucky Mineral (S1)		Vernal Pools (F9)	<sup>3</sup> Indicators of hydrophytic vegetation and	
Sandy Gleyed Matrix (S4)			wetland hydrology must be present.	
Restrictive Layer (if present)	);		The state of the s	
Loon on to callet (ii bresdist)				
Type:				
			Hydric Soil Present? Yes No. 1	
Туре:			Hydric Soli Present? Yes No	_
Type: Depth (Inches):			Hydric Soli Present? Yes No1	_
Type: Depth (Inches):			Hydric Soil Present? Yes No1	_
Type: Depth (Inches):		W.	Hydric Soii Present? Yes No1	_
Type: Depth (inches): Remarks:		W.	Hydric Soli Present? Yes No	_
Type:		W.		
Type:	š:	VI.	Secondary Indicators (2 or more required	
Type:  Depth (inches):  Remarks:  YDROLOGY  Wetland Hydrology Indicators  Primary Indicators (any one indi	š:		Secondary Indicators (2 or more required Water Marks (B1) (Riverine)	
Type:	š:	Salt Crust (B11)	Secondary Indicators (2 or more required Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine)	
Type:	š:	Salt Crust (B11) Biotic Crust (B12)	Secondary Indicators (2 or more required  Water Marks (B1) (Riverine)  Sediment Deposits (B2) (Riverine)  Drift Deposits (B3) (Riverine)	
Type:	8: licator is sufficient	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13)	Secondary Indicators (2 or more required  — Water Marks (B1) (Riverine)  — Sediment Deposits (B2) (Riverine)  — Drift Deposits (B3) (Riverine)  — Drainage Patterns (B10)	
Type:	8: licator is sufficient) erine)	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1)	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)	
Type:	s: licator is sufficient erine) onriverine)	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living F	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)  Roots (C3) Thin Muck Surface (C7)	
Type:	s: licator is sufficient erine) onriverine)	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living F	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)  Roots (C3)  Thin Muck Surface (C7)  Crayfish Burrows (C8)	0
Type:	s: licator is sufficient) erine) lonriverine) verine)	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Presence of Reduced iron (C4) Recent iron Reduction in Plowed Soil	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)  Roots (C3)  Thin Muck Surface (C7)  Crayfish Burrows (C8)  s (C6)  Saturation Visible on Aerial Imagery (	0
Type:	s: ficator is sufficient) erine) onriverine) erine)	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living F	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)  Roots (C3)  Thin Muck Surface (C7)  Crayfish Burrows (C8)  Is (C6)  Saturation Visible on Aerial Imagery (C6)	0
Type:	s: ficator is sufficient) erine) onriverine) erine)	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Presence of Reduced iron (C4) Recent iron Reduction in Plowed Soil	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)  Roots (C3)  Thin Muck Surface (C7)  Crayfish Burrows (C8)  s (C6)  Saturation Visible on Aerial Imagery (	0
Type:	8: licator is sufficient erine) lonriverine) rerine)	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living for Presence of Reduced fron (C4) Recent Iron Reduction in Plowed Soil 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)  Roots (C3)  Thin Muck Surface (C7)  Crayfish Burrows (C8)  Is (C6)  Saturation Visible on Aerial Imagery (C6)	0
Type: Depth (Inches): Remarks:  Primary Indicators (any one indica	s: ficator is sufficient  erine) onriverine) erine) I imagery (B7)	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living If Presence of Reduced fron (C4) Recent fron Reduction in Plowed Soil 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)  Roots (C3)  Thin Muck Surface (C7)  Crayfish Burrows (C8)  Is (C6)  Saturation Visible on Aerial Imagery (C6)	D.
Type: Depth (Inches): Remarks:  Primarks:  Primary Indicators (any one indicators (any	s: ticator is sufficient  erine) onriverine) erine) I imagery (B7)  Yes Nov	Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living F Presence of Reduced iron (C4) Recent iron Reduction in Plowed Soil 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)  Roots (C3)  Thin Muck Surface (C7)  Crayfish Burrows (C8)  Is (C6)  Saturation Visible on Aerial Imagery (C6)	(C9)

Remarks:

Project/Site: PANOCHE 120A0 BRIDGE		City/County	: SAN B	ENITO Sampling	g Date: 04/16/2020
Applicant/Owner: SAN BENITO COUNTY				State:CA Sampling	g Point: 6
Investigator(s): A. VAN ZUUL					
Landform (hillslope, terrace, etc.):					
Subregion (LRR):					
Soil Map Unit Name:					
Are climatic / hydrologic conditions on the site typical for the			/		
Are Vegetation, Soil, or Hydrology				"Normal Circumstances" present?	/
Are Vegetation, Soil, or Hydrology				eeded, explain any answers in Rem	
SUMMARY OF FINDINGS – Attach site map					
Hydrophytic Vegetation Present?	ula.				
	No	1	e Sample	d Area	
	No	with	in a Wetla	nd? Yes No	
Remarks:	-		60 Vo		
VECETATION Line exicutific names of plan	.4.	500			
VEGETATION – Use scientific names of plar		Daminant	la disetes	I Daniera Tarkan da kara	
Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?		Dominance Test worksheet:  Number of Dominant Species	
1. SALIX LASIOLEPIS	70	Y	FACW	That Are OBL, FACW, or FAC:	5 (A)
2				Total Number of Dominant	
3				Species Across All Strata:	5(B)
4				Percent of Dominant Species	
Sapling/Shrub Stratum (Plot size:)	70	= Total Co	ver	That Are OBL, FACW, or FAC:	160 (A/B)
1. ROSA CALIFORNICA	20	Υ	FAL	Prevalence Index worksheet:	
2 PACCHARIS SALICIFOLIA	5	N	FAC	Total % Cover of:	Multiply by:
3. RIBES CALIFORNICUM	3	N	UPL	OBL species x 1	1111 1111 1111
4				FACW species x 2	=
5				FAC species x 3	
Herb Stratum (Plot size:)	28	= Total Co	ver	FACU species x 4	
1. PLANTAGO MAJOR		N	FAC	UPL species x 5	
2. JUNCUS BALTICUS	35		FACW	Column Totals: (A)	(B)
3. EPILOBIUM CILIATUM	20	Y	FACW	Prevalence Index = B/A = _	
4. CYNODON DACTYLON	7	N	FALU	Hydrophytic Vegetation Indicate	ors:
5. JUNCUS XIPHIOLDES	15	<u> </u>	OBL	✓ Dominance Test is >50%	-
6. RULIEX CRISPUS	5	N	FAC	Prevalence Index is ≤3.0 <sup>1</sup>	
7. NASTURTIUM OFFICINALE	10	N	OBL	Morphological Adaptations¹ (F data in Remarks or on a se	
8				Problematic Hydrophytic Vege	Same and the same
Woody Vine Stratum (Plot size:	94	= Total Cov	/er	_ , , , ,	, , ,
1				<sup>1</sup> Indicators of hydric soil and wetla	nd hydrology must
2.				be present, unless disturbed or pro	oblematic.
		= Total Cov	er er	Hydrophytic	
% Bare Ground in Herb Stratum % Cover	of Biotic Cr	ust	44	Vegetation Present? Yes	No
Remarks:		TRACE OF STREET			

	cription: (Describe	to the dep	th needed to docu	ment the ir	ndicator or	confirm	n the absence o	of indicators.)
Depth	Matrix			x Features		. 2		_
nches)	Color (moist)	%	Color (moist)	%	Type'	Loc <sup>2</sup>	Texture	Remarks
0-6"	1042 3/2	80	7.54R 4/6	_ 20	_ <u>C</u>	М	SANOY LOAM	MEDIUM COBBLES
6-10"	WATER	100						
			<u> </u>					W
	Concentration, D=Dep					Sand G		ation: PL=Pore Lining, M=Matrix.
dric Soil	Indicators: (Applic	able to all	LRRs, unless other	rwise note	ed.)			or Problematic Hydric Soils <sup>3</sup> :
_ Histoso	l (A1)		Sandy Red	lox (S5)			30 TO	uck (A9) (LRR C)
_ Histic E	pipedon (A2)		Stripped M					uck (A10) (LRR B)
_ Black F	listic (A3)		Loamy Mu					d Vertic (F18)
_	en Sulfide (A4)		Loamy Gle	-	(F2)		1 TO THE RESERVE TO T	rent Material (TF2)
	ed Layers (A5) (LRR (	<b>C</b> )	Depleted N	, ,			Other (E	Explain in Remarks)
_	luck (A9) ( <b>LRR D</b> )		Redox Dar					
-	ed Below Dark Surfac	e (A11)		ark Surfac			3	
	Dark Surface (A12)		Geographic	oressions (F	F8)			of hydrophytic vegetation and
	Mucky Mineral (S1)		Vernal Poo	ols (F9)				ydrology must be present,
	Gleyed Matrix (S4)		- (SW)				unless dis	sturbed or problematic.
estrictive	Layer (if present):							
								,
Туре:		-						
	nches):						Hydric Soil I	Present? Yes No
	nches):				- 57		Hydric Soil I	Present? Yes No
Depth (ii	nches):				1		Hydric Soil I	Present? Yes No
Depth (ii emarks:							Hydric Soil F	Present? Yes No No
Depth (in emarks:								
Depth (in emarks:	DGY		d; check all that app	oly)				Present? Yes No
Depth (in emarks:	DGY ydrology Indicators:		d; check all that app				Second	
Depth (ii emarks:  /DROL( /etland Hyrimary Indo _ Surface	DGY ydrology Indicators: licators (minimum of c			t (B11)			Second W:	dary Indicators (2 or more required)
Depth (ii emarks:  /DROL( /etland Hy rimary Ind Surface High W	DGY ydrology Indicators: licators (minimum of d e Water (A1)		Salt Crus	t (B11)	es (B13)		<u>Second</u> W: Se	dary Indicators (2 or more required) ater Marks (B1) ( <b>Riverine</b> )
Depth (ii emarks:  /DROLO /etland Hyrimary Ind Surface High W	OGY ydrology Indicators: licators (minimum of d e Water (A1) /ater Table (A2)	one require	Salt Crus Biotic Cru Aquatic I	t (B11) ust (B12)			<u>Second</u> Wi Se Dr	dary Indicators (2 or more required) ater Marks (B1) ( <b>Riverine</b> ) ediment Deposits (B2) ( <b>Riverine</b> )
Depth (ii emarks:  /DROL( /etland Hyrimary Ind Surface High W Satura Water	OGY ydrology Indicators: licators (minimum of of the Water (A1) /ater Table (A2) tion (A3) Marks (B1) (Nonrive	one require	Salt Crus Biotic Cru Aquatic II Hydroger	it (B11) ust (B12) nvertebrate n Sulfide Od		iving Ro	Second  Wingset  Second  Dr  Dr	dary Indicators (2 or more required) ater Marks (B1) (Riverine) adiment Deposits (B2) (Riverine) ift Deposits (B3) (Riverine)
Depth (ii emarks:  /DROLO /etland Hyrimary Ind Surface High W Satura Water Sedime	ydrology Indicators: licators (minimum of of the Water (A1) /ater Table (A2) tion (A3) Marks (B1) (Nonrivelent Deposits (B2) (No	one require rine) onriverine)	Salt Crus Biotic Cru Aquatic II Hydroger Oxidized	t (B11) ust (B12) nvertebrate n Sulfide Oo Rhizosphe	dor (C1) eres along L		Second  — Wi — Se _ Dr — Dr — Dr — Dr	dary Indicators (2 or more required) ater Marks (B1) (Riverine) addiment Deposits (B2) (Riverine) ift Deposits (B3) (Riverine) ainage Patterns (B10)
Depth (ii emarks:  /DROLO /etland H rimary Ind Surface High W Satura Water Sedime Drift De	ydrology Indicators: licators (minimum of of the Water (A1) //ater Table (A2) tion (A3) Marks (B1) (Nonriversent Deposits (B2) (Nonriverseposits (B3) (Nonrivers	one require rine) onriverine)	Salt Crus Biotic Cru Aquatic II Hydroger Oxidized Presence	t (B11) ust (B12) nvertebrate n Sulfide Oo Rhizosphe	dor (C1) res along L ed Iron (C4)		Second  W Se Dr Dr Dr Coots (C3) Dr	dary Indicators (2 or more required) ater Marks (B1) (Riverine) adiment Deposits (B2) (Riverine) ift Deposits (B3) (Riverine) rainage Patterns (B10) ry-Season Water Table (C2) rayfish Burrows (C8)
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Project/Site: PANOCHE ROAD BRIDGE		City/Coun	ty: SAN B	ENITO	Sampling Date: <u>04/16/2020</u>
Applicant/Owner: SAN BENITO COUNTY					
Investigator(s): A. VAN ZUUK		Section, T	ownship, Ra	inge:	
Landform (hillslope, terrace, etc.):					
Subregion (LRR):					
Soil Map Unit Name:					cation:
Are climatic / hydrologic conditions on the site typical for thi					
Are Vegetation, Soil, or Hydrologys				- 113 mm Media - 00 100 mm Maria Maria	present? Yes No
Are Vegetation, Soil, or Hydrology r				eeded, explain any answe	
SUMMARY OF FINDINGS – Attach site map					
Lindsophytic Vessetties Present?	la /				
Hydrophytic Vegetation Present? Yes N Hydric Soil Present? Yes N		1	the Sampled		
Wetland Hydrology Present? Yes N	lo 🗸	wit	thin a Wetla	nd? Yes	No
Remarks:					
PAIRED UPLAND DATAPOINT.					
VECETATION Has a significant and a significant a	4				
VEGETATION – Use scientific names of plan					
Tree Stratum (Plot size:)	Absolute % Cover		nt Indicator ? Status	Dominance Test work	
1				Number of Dominant S That Are OBL, FACW,	pecies or FAC:0 (A)
2				Total Number of Domin	ant
3		190	_	Species Across All Stra	Control of the contro
4				Percent of Dominant S	necies
Casling/Charle Charles (Dietains)		= Total C	over	That Are OBL, FACW,	
Sapling/Shrub Stratum (Plot size:)				Prevalence Index wor	ksheet:
1					Multiply by:
3					x 1 =
4.					x 2 =
5				FAC species	x 3 =
		= Total C	over	FACU species	x 4 =
Herb Stratum (Plot size:)	24	~		N A SECOND CONTRACTOR OF THE C	x 5 =
1. BROMUS DIANDRUS 2. BROMUS HORDEACEUS	<u>30</u> 40		FACU	Column Totals:	(A) (B)
3. GERANIUM DISSECTUM	20	- Y	UPL	Prevalence Index	= B/A =
4. ERODIUM BOTRYS	9	N	FACU	Hydrophytic Vegetation	
5. PGA BULBOSA	3	N	FACU	Dominance Test is	Section of the sectio
6. LUPINUS MICROCARPUS VAR. MICROCARPUS	4	N	UPL	Prevalence Index is	s ≤3.0¹
7. AMSINCKIA INTERMEDIA	2	N	UPL		ptations <sup>1</sup> (Provide supporting
8. HORDEUM MURINUM	7	2	FACU		s or on a separate sheet)
	115	= Total C	over	Problematic Hydrol	phytic Vegetation <sup>1</sup> (Explain)
Woody Vine Stratum (Plot size:)				1 Indicators of hydric soi	and wetland hydrology must
1	-			be present, unless distu	
2		= Total C	over	Hydrophytic	
W.D	·			Vegetation	. /
% Bare Ground in Herb Stratum % Cover	of Biotic Cr	ust		Present? Yes	s No
Remarks:					

-	-		
•		ш	

OIL								Sampling Point: _	6A
Profile Desc	ription: (Describe	to the dept	needed to docu	ment the ind	icator o	or confirm	the absence	of indicators.)	
Depth	Matrix			x Features					
inches)	Color (moist)	%	Color (moist)		Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks	
0-13"	10 YR 3/2	100	Accessed 1997				SANDY LOAM	M SMALL COBBLES	
								2	
	oncentration, D=Dep					d Sand Gr		cation: PL=Pore Lining, M=	
VARIO W 25	Indicators: (Applic	able to all L			.)			for Problematic Hydric S	OIIS":
_ Histosol			Sandy Red				5.5 day 2.5 day	Muck (A9) (LRR C)	
	oipedon (A2)		Stripped M		-45			Muck (A10) (LRR B)	
_ Black Hi				cky Mineral (F				ced Vertic (F18)	
The same and the s	n Sulfide (A4)			yed Matrix (F	2)			arent Material (TF2)	
100	Layers (A5) (LRR	C)	Depleted M				Other	(Explain in Remarks)	
	ick (A9) (LRR D)			k Surface (F6	,				
	d Below Dark Surfac	e (A11)		ark Surface (					
10	ark Surface (A12)			ressions (F8)	)			of hydrophytic vegetation a	
	lucky Mineral (S1)		Vernal Poo	ls (F9)			wetland	hydrology must be present	,
	Bleyed Matrix (S4)						unless d	listurbed or problematic.	
estrictive l	Layer (if present):								
Type:									/
Depth (inc	ches):						Hydric Soil	Present? Yes	No √
rimary Indic Surface High Wa Saturatio	drology Indicators cators (minimum of e Water (A1) ater Table (A2) on (A3)	one required	Salt Crus Biotic Cru Aquatic Ir	t (B11) est (B12) evertebrates (			v s	ndary Indicators (2 or more Vater Marks (B1) (Riverine Sediment Deposits (B2) (Riv Orift Deposits (B3) (Riverine	) verine)
_ Water M	larks (B1) (Nonrive	rine)	Hydrogen	Sulfide Odor	r (C1)	1 ,3		Orainage Patterns (B10)	
_ Sedimer	nt Deposits (B2) (No	nriverine)	Oxidized	Rhizospheres	s along	Living Roo	ots (C3) [	Ory-Season Water Table (Ca	2)
_ Drift Dep	oosits (B3) (Nonrive	rine)	Presence	of Reduced I	Iron (C4	•)	_ c	Crayfish Burrows (C8)	
_ Surface	Soil Cracks (B6)		Recent Ire	on Reduction	in Tilled	Soils (Ce	5) 5	Saturation Visible on Aerial I	magery (C9
_ Inundation	on Visible on Aerial	Imagery (B7	) Thin Muc	k Surface (C7	7)		_ 8	Shallow Aquitard (D3)	
_ Water-S	tained Leaves (B9)		Other (Ex	plain in Rema	arks)		F	AC-Neutral Test (D5)	
ield Obser	vations:			7/0	100	7		W 150	
urface Wate	er Present?	/es N	lo Depth (ir			_			
Vater Table	Present?	/es N	lo Depth (ir	nches):>	13,,	_			/
Saturation P	resent?	/es N	lo Depth (ir	nches):>	13*	_ Wetl	and Hydrolog	y Present? Yes	No _
	oillary fringe) corded Data (strean	n gauge, moi	nitoring well, aerial	photos, previ	ious ins	pections).	if available:		
	(***	J J J		,					
Remarks:									

# **Appendix D** Site Assessment for CTS and CRLF

NES September 2021

# SITE ASSESSMENT FOR CALIFORNIA RED-LEGGED FROG AND CALIFORNIA TIGER SALAMANDER

PANOCHE ROAD BRIDGE (NO. 43C-0070)

REPLACEMENT AT TRES PINOS CREEK

SAN BENITO COUNTY, CALIFORNIA

05-SBT-0-CR

FEDERAL PROJECT NO. BRLS-5943 (056)



# SITE ASSESSMENT FOR CALIFORNIA RED-LEGGED FROG AND CALIFORNIA TIGER SALAMANDER

PANOCHE ROAD BRIDGE (NO. 43C-0070)

REPLACEMENT AT TRES PINOS CREEK

SAN BENITO COUNTY, CALIFORNIA

05-SBT-0-CR

FEDERAL PROJECT NO. BRLS-5943 (056)

Prepared for: San Benito County Department of Public Works 3220 Southside Road Hollister, California 95023

> For Submittal to: U.S. Fish and Wildlife Service 2493 Portola Road, Suite B Ventura, California 93003

California Department of Fish and Game Central Region 3196 Higuera Street, Suite A San Luis Obispo, California 93401



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•••••		- 0

# **APPENDICES**

A: RESUMES FOR LAURA BELT AND MIKE TRUEBLOOD

B: CRLF HABITAT SITE ASSESSMENT DATA SHEETS

C: REPRESENTATIVE PHOTOS OF TRES PINOS CREEK

## 1.0 INTRODUCTION

### 1.1 PURPOSE OF ASSESSMENT

This report presents an assessment of the status of the California red-legged frog (*Rana aurora draytonii*), the California tiger salamander (*Ambystoma californiense*), and potential habitat for each species on the Panoche Road Bridge Replacement Project (hereafter, project site) and vicinity. This assessment was prepared by Laura Belt and Mike Trueblood, Biologists with LSA Associates, Inc. (LSA) on behalf of San Benito County Department of Public Works.

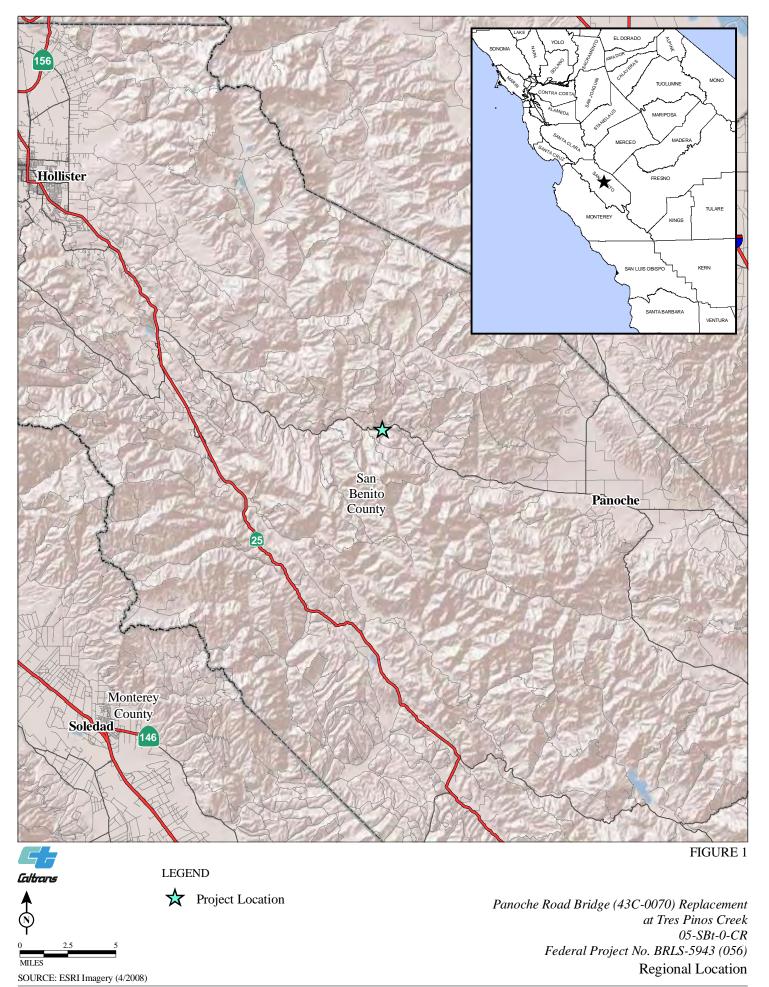
This assessment follows the protocols outlined in the United States Fish and Wildlife Service (USFWS) Revised Guidance on Site Assessment and Field Surveys for California Red-legged Frogs (August 2005) and the USFWS Interim Guidance on Conducting Site Assessments and Field Surveys for Determining Presence or a Negative Finding of the California Tiger Salamander (October 2003). Accordingly, for California red-legged frog, this assessment documents the records and describes the habitats occurring on the project site and within 1 mile; for California tiger salamander, this assessment describes the habitats within 1.24 miles of the site and documents the records within 3.1 miles of the project site. The assessment also evaluates the potential for each species to occur on the project site.

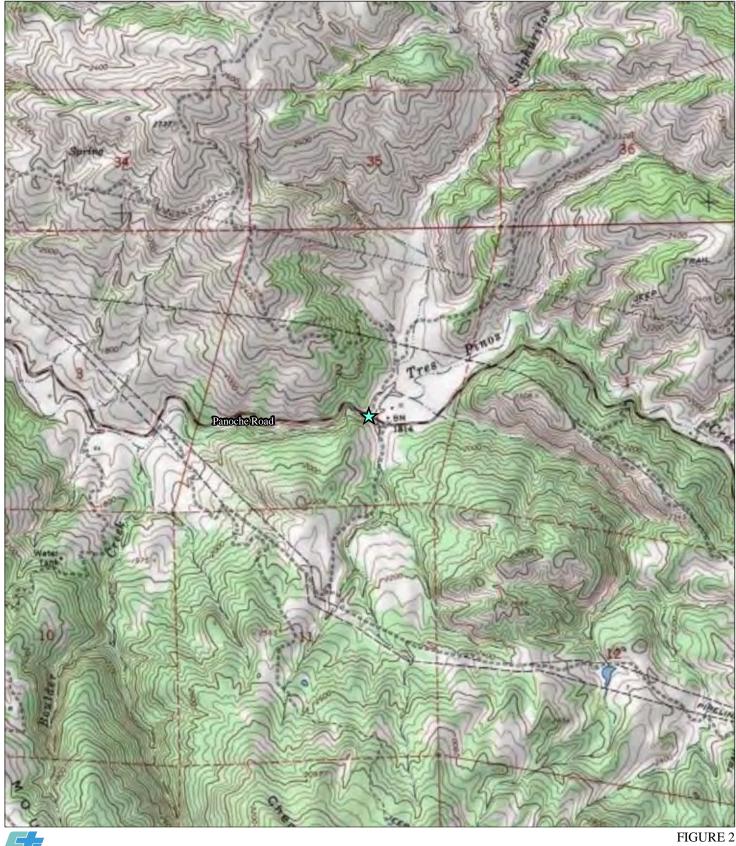
### 1.2 ASSESSMENT AREA

The project site is located in central San Benito County within the Panoche Pass 7.5-minute quadrangle, at the eastern base of the Diablo mountain range, and approximately 25 miles southeast of the City of Hollister. Panoche Road crosses over Tres Pinos Creek (No. 43C-0027) approximately 15 miles southeast of the State Highway 25 (Figures 1 and 2) and will be replaced with a new bridge (No. 43C-0070). Panoche Road generally runs east to west and consists of a graded two-lane asphalt roadway. The existing bridge crossing is a narrow single-lane concrete bridge over Tres Pinos Creek.

The project site lies in a largely undeveloped area among rolling hills within the Tres Pinos Creek watershed. Aquatic features in the general vicinity are composed of small ephemeral drainages as well as several stock ponds. Many of the ephemeral drainages are tributary to Tres Pinos Creek. The dominant plant communities on the project site are willow riparian forest, pasture, and ruderal grassland. Primary land uses in the vicinity are rural residences and pasture.

The project site comprises approximately 3.73 acres and is at an elevation of approximately 1,800 feet. The majority of the land in the area is privately owned and appears to be similar to the project site in use and vegetative characteristics.







Panoche Road Bridge (43C-0070) Replacement at Tres Pinos Creek 05-SBt-0-CR Federal Project No. BRLS-5943 (056) Project Vicinity on Topographic Base

# 1.3 PROJECT DESCRIPTION

The Panoche Road Bridge Replacement Project (project) will include replacement of the existing single-lane bridge with a bridge consisting of two 12 foot travel lanes with 4 foot shoulders on both sides. The roadway on both sides of the bridge is two lanes. The project would also include up to 400 feet of approach work on either side of the bridge. The current bridge is 86.94 feet long and 15.75 feet wide. The proposed structure would be approximately 132 feet long with a total bridge deck width of approximately 34 feet on a shifted alignment approximately 50 feet downstream of the existing bridge.

# 2.0 ASSESSMENT

# 2.1 REGIONAL STATUS

# 2.1.1 California Red-Legged Frog

The California red-legged frog historically ranged throughout much of the northern Central Valley and the coast range from San Francisco to northern Baja California, Mexico. The California red-legged frog is now absent from 90 percent of its historical range, but is still locally abundant in portions of the San Francisco Bay and the central coast. San Benito County is located within the current range of the California red-legged frog.

The project site is located within California red-legged frog designated critical habitat Unit SNB-2.

# 2.1.2 California Tiger Salamander

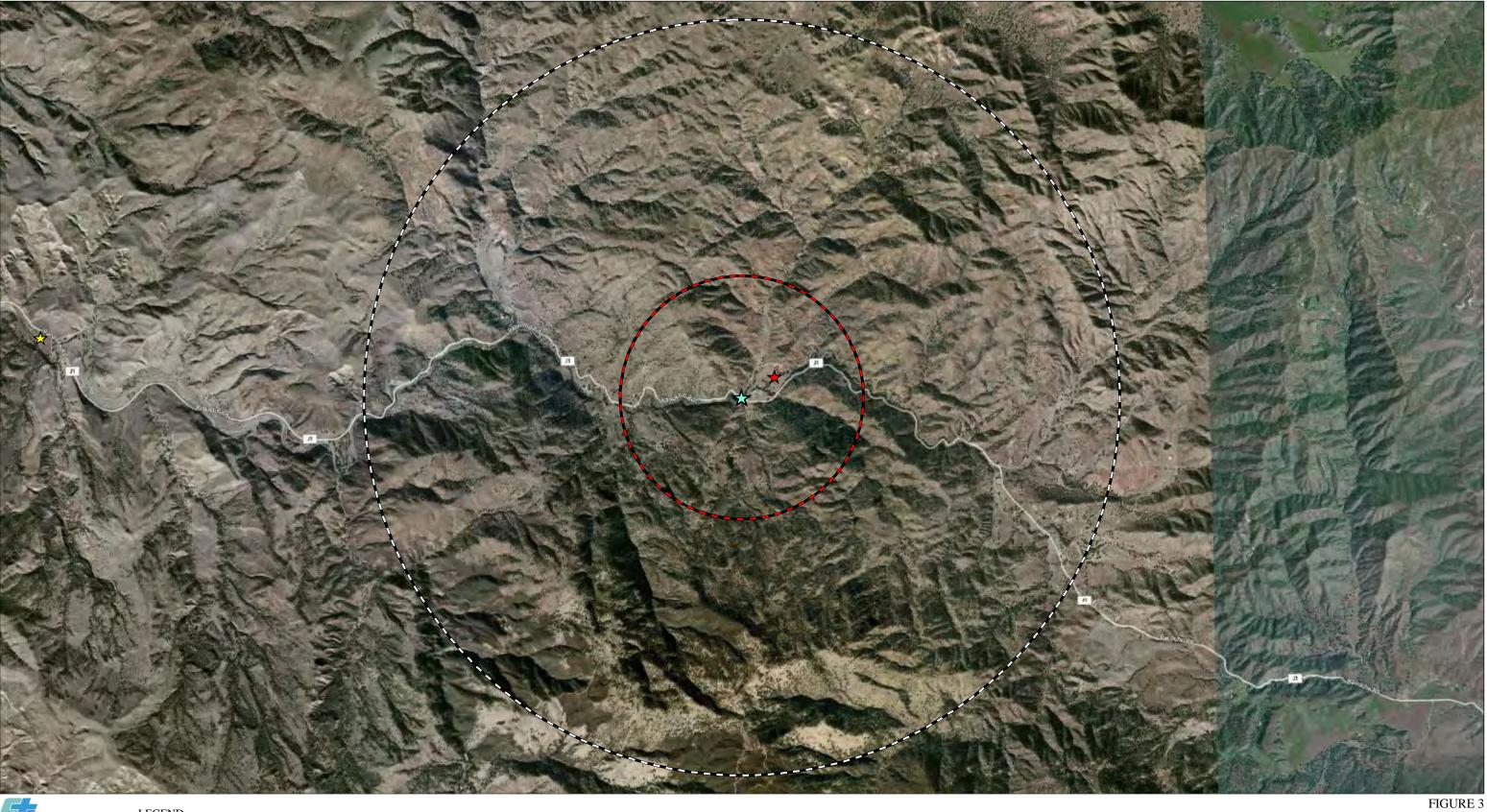
The California tiger salamander ranges through low grasslands and low foothill regions of Central and Northern California. The species occurs from Sonoma, Colusa, and Yolo Counties south through the Central Valley to Tulare County, and through the Coast Range into Santa Barbara County. An isolated population also occurs in Butte County. San Benito County is located within the current range of the California tiger salamander.

The project site is not located within designated critical habitat for California tiger salamander. The nearest critical habitat is Unit eb-16, which is located approximately 10 miles south of the project site along State Highway 25.

### 2.2 DOCUMENTED OCCURRENCES

### 2.2.1 California Red-Legged Frog

LSA searched for records of California red-legged frog in the project vicinity by querying the California Natural Diversity Data Base (CNDDB 2011) referencing the Panoche Pass and surrounding 8 quadrangles. The nearest record of California red-legged frog is 0.15 mile upstream of the project site on Tres Pinos Creek (Figure 3). The habitat consists of the creek limits and an adjacent roadside pond with open riparian shoreline. Although there are no other CNDDB records in this area, this species is well-documented in the Tres Pinos Creek watershed. Figure 3 shows records for California red-legged frog in the vicinity of the project site.





LEGEND

Project Location

CRLF 1-Mile Radius CTS 3.1-Mile Radius CNDDB Records (May 2011)

Ambystoma californiense

Rana draytonii

Panoche Road Bridge (43C-0070) Replacement at Tres Pinos Creek 05-SBt-0-CR Federal Project No. BRLS-5943 (056) CRLF and CTS CNDDB Records in the Vicinity of the Project Site

SOURCE: ESRI Imagery (2009)

# 2.2.2 California Tiger Salamander

LSA searched for records of California tiger salamander in the project vicinity by querying the California Natural Diversity Data Base (CNDDB 2011) referencing the Panoche Pass and surrounding 8 quadrangles. There are no records of California tiger salamander within 3.1 miles of the project site. The nearest record, dated 2000, is approximately 7.6 miles west of the project site. This record is of an individual California tiger salamander observed along Panoche Road in the vicinity of Tres Pinos Creek. Figure 3 shows records for California tiger salamander in the vicinity of the project site.

### 2.3 HABITATS ON THE PROJECT SITE AND IN THE VICINITY

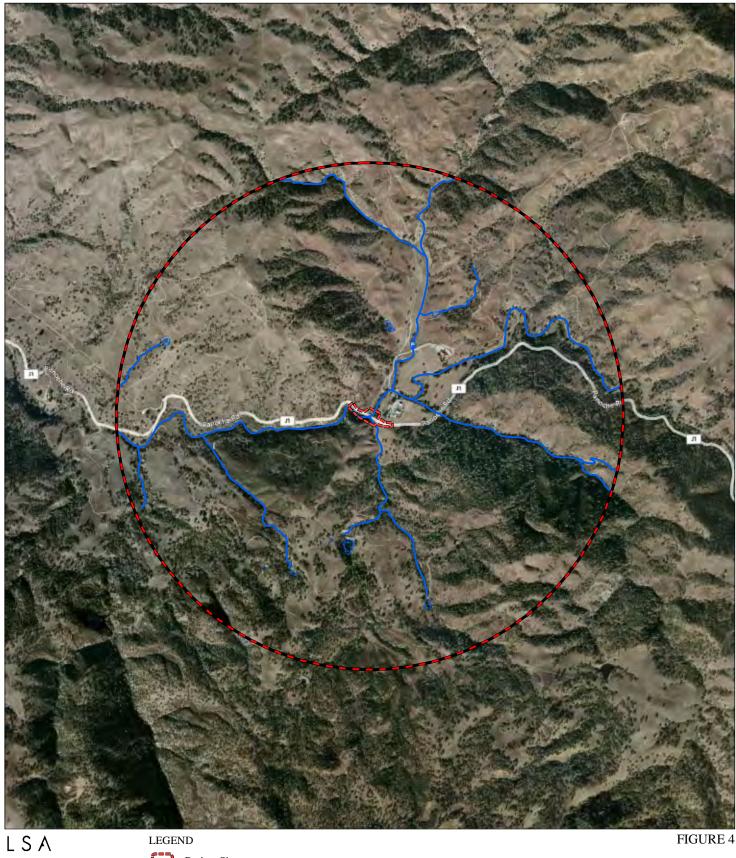
LSA biologist Mike Trueblood surveyed the project site and surrounding site vicinity on May 11, 2011. Prior to the survey, aerial photographs of the project site and surrounding lands were reviewed to identify ponds, drainages, and other features that could potentially provide aquatic habitat for California red-legged frog or California tiger salamander. During the survey, LSA biologists surveyed the entire project site, and mapped all suitable aquatic habitats for California red-legged frog or California tiger salamander. Most private lands in the vicinity of the project were inaccessible, but potential habitats for California red-legged frog and California tiger salamander were mapped using an aerial photo.

# 2.3.1 California Red-Legged Frog - Potential Aquatic Habitat on the Project Site and Within a 1 Mile Radius

California red-legged frogs are considered to be "pond frogs," adapted to slow moving or still waterbodies such as ponds, pools, and marshes. However, California red-legged frogs also occur in perennial streams. Habitat features typically associated with this species include emergent and overhanging vegetation, and banks containing numerous refugia locations that could conceal adult frogs.

Tres Pinos Creek within the project site supports adequate hydrology and vegetative structure to provide suitable aquatic habitat for California red-legged frogs. It is a perennial creek with pooled areas directly adjacent to the Panoche Road Bridge structure where the water moves at a slower velocity than the rest of the channel. The bed of the live channel is composed of bedrock, rock, cobble, and sand. The edges of the creek have sediment deposited at varying levels; emergent vegetation is fairly dense and grows along the edges and within the live channel. The majority of the canopy cover consists of willow (*Salix* sp.) and a few oaks (*Quercus* sp.); the channel edge and bank are dominated by creeping spike rush (*Eleocharis* sp.), poison oak (*Toxicodendren diversilobum*), California rose (*Rosa californica*), mugwort (*Artemesia* sp.), and other herbaceous vegetation. See the data sheet in Appendix B.

Potential aquatic habitat for California red-legged frog within 1 mile of the project site includes additional reaches of Tres Pinos Creek upstream and downstream of the project site, a few intermittent and ephemeral tributaries, and several stock ponds. The stock ponds appear to be minimally vegetated, though some appear to support overhanging or emergent vegetation. Figure 4 illustrates the distribution of potential aquatic habitat for California red-legged frog on the project site and within a 1 mile radius.



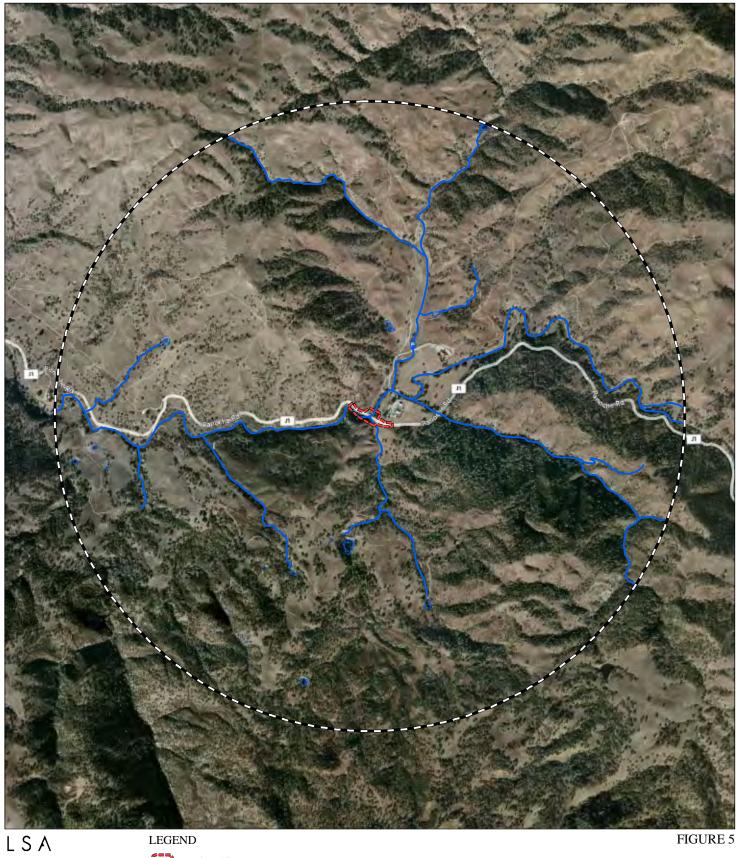


# 2.3.2 California Tiger Salamander - Potential Aquatic Habitat on the Project Site and Within a 1.24 Mile Radius

The California tiger salamander requires burrows in upland habitat for the majority of the year, in addition to aquatic breeding habitat. Upland habitat favored by this species is generally open grassland or savannahs. California tiger salamanders cannot dig their own burrows and, consequently, are largely dependent on the presence of fossorial mammals such as ground squirrels, though California tiger salamanders can also utilize cracks or crevices in the ground. Breeding habitat consists of natural ephemeral pools, stock ponds, and other small, artificial water bodies, particularly those that dry up in summer.

Tres Pinos Creek is a perennial creek with flows too swift to provide suitable aquatic breeding habitat for the California tiger salamander, even in the slower moving sections of the creek. No other potential aquatic habitat occurs on the project site. Suitable upland habitat is also absent from the project site; though grassland and pasture are present, no suitable burrows or other suitable openings in the ground were observed in the project site.

Several ponds occur within 1.24 miles of the project site that provide potential aquatic habitat for California tiger salamander. Although the ponds are located on private property and were not accessible during the field surveys, review of aerial photos showing these features reveal that several of the ponds within 1.24 miles of the project site are seasonal and could provide suitable aquatic habitat for California tiger salamander. Figure 5 illustrates the distribution of potential aquatic habitat for California tiger salamander within 1.24 miles of the project site.





# 3.0 RESULTS

### 3.1 CALIFORNIA RED-LEGGED FROG

The findings of this report are that the California red-legged frogs are potentially present on the project site and in the vicinity based on the following observations:

- The project site is located within the current range of the species;
- There is suitable habitat within the project site for California red-legged frog;
- There are several drainages and ponds in the vicinity of the project site that could provide habitat and a source of migrating individuals;
- There are numerous records of California red-legged frog in the vicinity.

# 3.2 CALIFORNIA TIGER SALAMANDER

The findings of this report are that California tiger salamanders are not likely to be present on the project site, but may be present in the vicinity based on the following observations:

- Although the project site is located within the current range of the species, there is no suitable aquatic or upland habitat for California tiger salamander on the project site;
- There are no records of California tiger salamander within 3.1 miles of the project site;
- There is potentially suitable aquatic and upland habitat in the vicinity of the project site.

# 4.0 REFERENCES

- California Department of Fish and Game. 2011. Rarefind 3 personal computer program. Sacramento, CA. Records search executed May 3, 2011 and July 19, 2011. Sacramento, California.
- Jennings, M. R., and M. P. Hayes. 1994. Amphibian and Reptile Species of Special Concern in California. Final report to the California Dept. of Fish and Game, Inland Fisheries Division, Rancho Cordova. Contract No. 8023.
- U.S. Fish and Wildlife Service (USFWS). 2001. Endangered and Threatened Wildlife and Plants; Final Determinations of Critical Habitat for the California Red-legged Frog; Final Rule. March 13, 2001. Federal Register 66:14625-14674.
- ———. 2002. Recovery Plan for the California Red-legged Frog (*Rana aurora draytonii*). Portland, Oregon. May 2002. 173pp.
- ———. 2003. Interim Guidance on Site Assessment and Field Surveys for Determining Presence or a Negative Finding of the California Tiger Salamander. USFWS, California/Nevada Operations Office, Sacramento, CA and California Department of Fish and Game, Office of the Director, Sacramento, CA.
- ———. 2004. Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for the California Tiger Salamander, Central Population; Proposed Rule. *Federal Register* 69: 78570-48649.
- ———. 2005. *Interim Guidance on Site Assessment and Field Surveys for California Red-legged Frogs*. Sacramento Field Office, Sacramento, CA.

# APPENDIX A

# RESUMES FOR LAURA BELT AND MIKE TRUEBLOOD

# LAURA BELT WILDLIFE BIOLOGIST



### **EXPERTISE**

Wildlife Surveys

Sensitive Species Surveys

Biological Construction Monitoring

**Environmental Assessment** 

### **EDUCATION**

California State University, Bakersfield. Bachelor of Science Degree in General Biology, 1989.

# PROFESSIONAL AFFILIATIONS

The Wildlife Society

The Audubon Society

### PROFESSIONAL RESPONSIBILITIES

Ms. Belt has a diverse background as a wildlife field biologist, which includes 19 years of experience in conducting habitat and wildlife surveys throughout the state. Ms. Belt is responsible for a variety of tasks at LSA, which include biological surveys and construction monitoring of a variety of projects including road work and bridge replacement projects, preparation of biological assessments involving plant and wildlife issues, preparation of 401, 404 and 1600 application material, mitigation plans, and other environmental documentation.

Ms. Belt is also on the Fish and Wildlife Service List of Authorized Individuals to conduct activities with vernal pool tadpole and fairy shrimp and California tiger salamander, as per LSA's Recovery Permit.

Construction monitoring experience includes kit fox, Mojave ground squirrel, western burrowing owl, Swainson's hawk, California redlegged frog, foothill yellow-legged frog, San Francisco garter snake, giant garter snake and valley elderberry longhorn beetle. The following highlights her survey and monitoring experience.

### PROJECT EXPERIENCE

# **Vulcan Sanger Aggregate Mine Fresno County, California**

Conducted preconstruction survey for nesting birds in the limits of the proposed expansion site. Conducted focused surveys for potential VELB habitat, elderberry shrubs (*Sambucus* spp.), in riparian habitat located along the Kings River. Approximately 150 elderberry shrub locations were mapped and stem and exit-hole data was recorded.

# **River Rock Expansion**

# Fresno County, California

Conducted preconstruction survey for nesting birds in the limits of the proposed expansion site. Monitored the status of inactive nests in trees via a man –lift (cherry picker).

# Academy North On-Call Services Fresno County, California

Conducted focused survey for western burrowing owl and mapped suitable habitat for California tiger salamander along roadway and right-of-way limits.

# LAURA BELT WILDLIFE BIOLOGIST



# PROFESSIONAL EXPERIENCE

Wildlife Biologist, LSA Associates, Inc., Rocklin CA. 2000-Present.

Wildlife Assistant, California Department of Fish and Game, Sacramento CA, 1992-1994, 1999-2000.

Public Relations, San Diego Zoo and Wild Animal Park, 1997-98.

Wildlife Research Assistant, San Diego State Research Foundation, San Diego CA, 1995-1996.

Wildlife Research Assistant, United States Geological Survey, Western Ecological Research Center.

Dixon, CA, and California Department of Fish and Game, Sacramento CA, 1990-94.

### PROJECT EXPERIENCE (CONTINUED)

# Triangle Rock Products, Inc. Sacramento County, California

Conducted focused pre-construction surveys for tricolored blackbird and burrowing owl.

- General wildlife surveys, biological reconnaissance survey of proposed project site, and special status species surveys for giant garter snake, Swainson's Hawk, Cooper's Hawk, burrowing owl, white-tailed kite, loggerhead shrike, and northwestern pond turtle.
- Triangle Rock Preserve Hydrology monitoring and protocol fairy and tadpole shrimp surveying at existing and created vernal pools.

# Highway 41 Quarry (Austin Quarry) Madera County, California

Conducted San Joaquin kit fox and western burrowing owl site assessments for a 300-acre potential quarry site. Mapped and monitored burrowing owls habitat use and movement, before and after the nesting season. Project site also included vernal pools and California tiger salamander habitat.

# San Luis Obispo Creek Enhancement Project San Luis Obispo County, California

Conducted preconstruction and construction monitoring on the San Luis Obispo Creek Enhancement project site, located north of the City of San Luis Obispo and west of Highway 101. Assisted the Department of Fish and Game in capturing steelhead during dewatering activities.

# Coast Rock Company Bradley, San Luis Obispo County, California

Conducted protocol surveys for San Joaquin kit fox and western burrowing owl, as well as pre-construction and construction monitoring for both species. Focused burrow surveys were also conducted for both species using video-scope camera technology.

# Potrero Hills Landfill Study Site Suisun, Solano County, California

Conduct protocol level surveys for vernal pool crustaceans and focused surveys for California tiger salamander, annually.

# Wendt Ranch, Dougherty Valley and Discovery Bay Development Contra Costa County, California

Monitored the location of western burrowing owls and passive relocation activities, prior to clearing and grading.





### PROJECT EXPERIENCE (CONTINUED)

# Ventura State Highway 118 Corridor Study Simi Valley, Ventura County, California

Wildlife surveys using camera, video, and scent station tracking to document the use of highway corridors by wildlife, with a focus on bear, mountain lion, deer, coyote, and bobcat.

# SR-92/Retaining Wall and Culvert Construction Half Moon Bay, California

Pre-construction and construction monitoring for California red-legged frog and San Francisco garter snake, within the Pilarcitos Creek Corridor adjacent to SR-92.

# SR-101/West of Bayshore and BART Haul Route Restoration San Francisco Airport

San Francisco, California

Preconstruction and construction monitoring for California red-legged frog and San Francisco garter snake, adjacent to the off-ramp lane to the San Francisco Airport.

# Cranmore/Garmire Road Bridge Replacement Project Sutter County California

Pre-construction and construction monitoring for nesting birds, giant garter snake, burrowing owl and Swainson's hawk near the Sacramento River over a construction season.

# SR-65/Bypass

# Lincoln, Placer County, California

Inventory and map the location of all native trees within the 14 –mile bypass alignment limits. Conduct preconstruction and construction monitoring of work project creating new roadway and 17 bridges. Monitoring tasks include surveying for Swainson's hawks and other nesting birds, before and during the nesting season.

# MIKE TRUEBLOOD

**BIOLOGIST** 



### **EXPERTISE**

**Construction Monitoring** 

Environmental Assessment/ Biological Assessment

Wetland Delineation

**Regulatory Permitting** 

GIS Graphics Design

### **EDUCATION**

University of California at Davis; Davis, CA. B.S. Wildlife, Fish, and Conservation Biology, 2000.

# PROFESSIONAL EXPERIENCE

Biologist, LSA Associates, Inc., Rocklin, CA. June 2002-present.

Environmental Analyst, North State Resources, Sacramento, CA. 2001.

Environmental Monitor/Field Coordinator, Jones & Stokes, Sacramento, CA. 2000.

### PROFESSIONAL RESPONSIBILITIES

Mr. Trueblood has been a general biologist at LSA since 2002, with an additional 2 years of professional experience prior to LSA, focusing on biological resources, wetland projects, and construction projects throughout the middle sections of California. Mr. Trueblood's background has involved work in a variety of habitats including oak woodland and savannah, riparian woodland, saltwater marsh, freshwater marsh, vernal marsh, coastal sage and desert scrub, chaparral, and grassland.

Mr. Trueblood is responsible for a variety of biological tasks at LSA, which include biological surveys, sensitive species surveys, habitat assessment, wetland delineation, construction monitoring, regulatory permitting, and GIS graphic design. Environmental analyst tasks include preparation of various environmental documents, water resource, and other application material or mitigation plans.

### PROJECT EXPERIENCE

Mr. Trueblood has provided biological and/or permitting services for the following selected projects.

# Highway 41 Quarry (Austin Quarry) Madera County, California

Wetland delineation, habitat mapping, and San Joaquin kit fox and western burrowing owl site assessments for a 300-acre potential quarry site.

# Academy North On-Call Services Fresno County, California

Western burrowing owl focused surveys, habitat mapping and California tiger salamander habitat assessment along roadway and rightof-way limits for a road widening project.

# State Route 65 Bypass Lincoln, California

Wetland delineation and verification for project site and mitigation site, vernal pool hydrology monitoring, GIS graphic design, and construction monitoring.

# Triangle Rock Vernal Pool and Laguna Creek Enhancement and Maintenance

### Sacramento, California

Biological resource monitoring and long-term maintenance for vernal pool and wetland improvement and restoration mitigation for an aggregate mining project.

# MIKE TRUEBLOOD

BIOLOGIST



# PROJECT EXPERIENCE (CONTINUED)

# Lone Tree Road Bridge/Cienega Road Bridge Hollister, California

Biological surveys, wetland delineation, California red-legged frog protocol surveys, and regulatory permitting for two bridge replacement projects.

# Amargosa Creek Corridor Development Palmdale, California

Field surveys including tortoise, burrowing owl, and Mojave ground squirrel. Construction monitoring. 2081 take permit applications.

# Mid County Parkway Perris, California

Field surveys including habitat assessment, protocol sensitive plant surveys, and wetland delineation for the Ramona/Cajalco Expressway widening and realignment.

# Wise Road Bridge Replacement Placer County, California

Biological surveys, Red legged Frog protocol surveys. Wetland delineation, regulatory permitting/coordination and construction monitoring for a bridge replacement project.

# North Stockton Railroad Grade Separations and Bridge Replacements

# Stockton, California

Habitat assessment, Biological surveys, wetland delineation, and regulatory permitting/coordination for three roadway widening and railroad grade separation projects.

404, 1602, and 401 permitting, Various projects.

GIS Graphic Design, Various projects.

# **APPENDIX B**

# CRLF HABITAT SITE ASSESSMENT DATA SHEETS

#### California Red-legged Frog Habitat Site Assessment Data Sheet #1

Site Assessment reviewed by		<del></del>
(FWS Field Office)	(date)	(biologist)
Date of Site Assessment: 05/11/20 (mm/dd/yyy) Site Assessment Biologists: <u>Truel</u> (Last na	y) <mark>blood, Mike_</mark>	(Last name) (first name)
(Last name) (first na	me) (Last name)	(first name)
Site Location: Panoche Road Br (County, General location name, UTM		
**ATTACH A MAP	(include habitat typ	pes, important features, and species locations)**
	n: <u>Replace the e</u> ravel lanes with	existing single-lane Panoche Road Bridge with a four foot shoulders on both sides. The project
1) Is this site within the current or l	historic range of	the CRF (circle one)? YES X NO
· ·		(1 mi) of the site (circle one)? YES <b>X</b> NO map showing all locations. (See Figure 3)
		TAT CHARACTERIZATION  osed action area, fill out one data sheet for each)
POND: Size:	Maximum	depth:
Vegetation: emergent, over	rhanging, domina	ant species:
Substrate:		
Perennial or Ephemeral (circle on	ee). If ephemeral,	date it goes dry:

#### California Red-legged Frog Habitat Site Assessment Data Sheet#1

# STREAM: Bank full width: 40 feet (20 to 30 feet average, and 6 to 12 feet in low flow areas) Depth at bank full: 1 to 2 feet on average (1 foot in low flow areas) Stream gradient: Shallow Are there pools (circle one)?YES X NO If yes, Size of stream pools: 6 to 12 feet in width by 10 to 12 feet in length Maximum depth of stream pools: 2 feet Characterize non-pool habitat: run, riffle, glide, other: Glide and riffle Vegetation: emergent, overhanging, dominant species: Willow, creeping spike rush, poison oak, and mugwort. Substrate: Bedrock, cobble, rocks, and sand Bank description: Edge of creek and top of bank is vegetated.

Other aquatic habitat characteristics, species observations, drawings, or comments:

**Perennial X or Ephemeral** (circle one). If ephemeral, date it goes dry: \_\_\_\_\_

Perennial creek with pooled areas directly adjacent to the Rocks Road Bridge structure where the water moves at a slower velocity than the rest of the channel. The bed of the live channel is composed of bedrock, rock, cobble, and sand. The edges of the creek have sediment deposited at varying levels; emergent vegetation is fairly dense and grows along the edges and within the live water channel. The majority of the canopy cover consists of willow; the channel edge is dominated by creeping spikerush and the banks are dominated by emergent willow, poison oak, California rose, mugwort, and other herbaceous vegetation.

#### **Necessary Attachments:**

- 1. All field notes and other supporting documents
- 2. Site photographs

Maps with important habitat features and species location

#### **APPENDIX C**

#### REPRESENTATIVE PHOTOS OF TRES PINOS CREEK



Tres Pinos Creek downstream of the existing bridge.



Ephemeral tributary to Tres Pinos Creek southeast of the bridge.



From the low water crossing north of the bridge looking upstream.



Tres Pinos Creek directly under bridge. Frogs observed at this location.



Panoche Road Bridge (43C-0027) Replacement at Tres Pinos Creek
Federal Project No. BRLO-5943(056)
Representative Photos of Tres Pinos Creek

# **Appendix E** Agency Coordination Documentation

NES September 2021

#### Jeff Bray

From: Crystahl Taylor

**Sent:** Monday, August 22, 2011 3:17 PM

**To:** Jeff Bray

Cc: Mike Trueblood

Subject: San Benito Projects - Conference Call with USFWS and CDFG

Hi Jeff,

Mike and I just finished talking with Chris Diel and Brandon Sanderson. They were very complimentary of our reports, but do have concerns for Rocks Road and Panoche. Below is a summary of each project and their concerns. Mike, please add to this if needed.

#### Santa Ana/Fairview

- As long as construction does not go "off alignment" neither Chris nor Brandon have any real concerns regarding CTS.
- Implementation of typical avoidance measures, construction timing, and presence of a biological monitor would be sufficient.
- Consultation not expected.
- Insignificant project impacts.

#### Panoche Road

- Not as concerned regarding CTS habitat. Implementation of typical avoidance measures, construction timing, and presence of a biological monitor would be sufficient.
- More concerned regarding CRLF and recommend surveys/consultation.
- Mike mentioned that he observed a pond turtle and CRLF tadpoles during jurisdictional delineation.

#### Rocks Road

- Most concerned with this project of the three discussed.
- Chris questioned if burrows were present within the project site and staging area.
- Project could be dispersal habitat. Not classically defined habitat, but upland habitat may be present within vicinity.
- Brandon plans to conduct a site visit within the next few weeks.
- Implementation of typical avoidance measures, construction timing, and presence of a biological monitor may be sufficient. Brandon will confirm after site visit.

Feel free to let me know if you have any questions. Thank you!

Crystahl Taylor Senior Environmental Planner LSA Associates, Inc. 1998 Santa Barbara Street, Suite 120 San Luis Obispo, CA 93401 805.782.0745 phone 805.782.0796 fax crystahl.taylor@lsa-assoc.com



Please consider the environment before printing this email

#### **Jeff Bray**

From: Brandon Sanderson [BSANDERSON@dfg.ca.gov]

Sent: Tuesday, January 03, 2012 3:23 PM

To: Ali Summers

Subject: Panoche Rd Bridge Replacement

Attachments: DFG SJAS Survey Methodologies.pdf



Hope you had a good holiday. Got your message. After reviewing the project I don't think you'll need to worry about antelope squirrels in the area. They predominantly occur in the Panoche Valley and eastern foothills within k-rat habitat. However, I have attached survey protocol for your future reference. As far as Least Bell's vireo, I don't have information on this area. I would however, make sure that there isn't the potential for Ca tiger salamanders to be in the area. From the CTS site assessment provided in August there doesn't seem to be a concern but the potential may exist.

Thanks,

Brandon Sanderson Environmental Scientist Department of Fish & Game 3196 Higuera St., Suite A San Luis Obispo, CA 93401 805-594-6141 bsanderson@dfg.ca.gov www.dfg.ca.gov

#### Jeff Bray

From: Devin Best [devin.best@noaa.gov]

Sent: Monday, January 09, 2012 8:46 AM

To: Ali Summers

Subject: Re: Tres Pinos Creek steelhead

Hi Ali,

To answer your first question, the work window for dewatering follows DFG guidelines and for that area it would be July 15 - October 15. As for the second question, if the county pursued doing an informal consultation, which would not provide take authorization, and fish were present during dewatering events, they could be liable. It would be int the best interest for the county to request a formal consultation to give them the insurance of causing "take" to the species so the project can be implemented. What would help in making the determination is knowing what the site conditions and anticipated flows during the summer period. If the section of creek is typically dry, even in normal or wet years, there may not be any reason to go informal since fish would not likely be present. If you could provide me with the lat/long, I will take a look to give you some guidance.

Thanks, Devin

Devin Best Natural Resource Management Specialist NOAA Fisheries 777 Sonoma Ave. Santa Rosa, CA 95404 Office: 707.578.8553 Fax: 707.575.3435

On Fri, Jan 6, 2012 at 1:26 PM, Ali Summers < <u>Ali.Summers@lsa-assoc.com</u>> wrote: Hi Devin,

Thanks for the information yesterday. I have a couple more questions. Since the project will involve dewatering, what would be the recommended work window for construction, for that area? Second, if the fish are not physically present during construction, would there still be take? My supervisor thinks the county would rather not get take authorization unless they need to, so he wanted to get your opinion on this.

Thanks so much,

Alí Summers Biologist

LSA Associates, Inc. 4200 Rocklin Road, Suite 11B Rocklin, CA 95677 916-630-4600 ali.summers@lsa-assoc.com

#### Mike Trueblood

#### Subject:

FW: Panoche Weir removal of anchor pipes

From: Devin Best - NOAA Federal [mailto:devin.best@noaa.gov]

Sent: Thursday, April 04, 2013 8:01 AM

To: Mike Trueblood

Subject: Re: Panoche Weir removal of anchor pipes

Mike,

From reviewing the attached design, the project looks acceptable. Please let me know if I can be of further assistance.

Thanks, Devin

On Mon, Apr 1, 2013 at 12:50 PM, Mike Trueblood < <a href="mailto:Mike.Trueblood@lsa-assoc.com">Mike.Trueblood@lsa-assoc.com</a> wrote:

Devin – Per your request, the engineers have removed the anchor pipes from the weir design (see attached). Since they were only included as a redundancy and are not necessary, no further modifications to the weir design were made. Let me know if the design is now acceptable.

Thanks,

Mike Trueblood Senior Biologist LSA Associates, Inc. 4200 Rocklin Road, Suite 11B Rocklin, CA 95677 (916) 630-4600 mike.trueblood@lsa-assoc.com

From: Devin Best - NOAA Federal [mailto:devin.best@noaa.gov]

Sent: Thursday, March 14, 2013 11:21 AM

To: Mike Trueblood

Subject: Re: FW: Panoche RSP Limits and Weir Details

Mike,

I met with our hydraulic engineer to review the design for this project. Using pipe to keep rocks from "walking" is no longer an accepted practice. NMFS encourages applicants and engineers to mimic natural systems as much as possible. There are many design alternatives available and our engineering staff would be willing to offer any assistance needed. Please revise the plans and get back to me with any questions or comments you have.

Thanks, Devin

On Mon, Mar 11, 2013 at 3:29 PM, Mike Trueblood < <a href="Mike.Trueblood@lsa-assoc.com">Mike.Trueblood@lsa-assoc.com</a>> wrote:

Devin – I spoke to the engineers and asked them to write up something to justify the anchor pipes as part of the weir design. Bottom line is that they were added as a redundancy to meet the property owner's request that the weir would be zero maintenance. See below for the "engineer speak". They can be removed as part of the design if you think it would be prudent. Let me know what you think.

Thanks,

From: Grant Wilcox [mailto:grant wilcox@wreco.com]

Sent: Monday, March 11, 2013 2:06 PM To: Mario Quest; Mike Trueblood

Cc: HanBin Liang; Wana Chiu; Carolyn Davis; Edward Heming

Subject: RE: Panoche RSP Limits and Weir Details

Hi Mike,

In summary of our phone conversation concerning the anchor pipes and the weir design, we have the following:

The anchor pipes are redundant and were included because of the landowner's comments concerning creating a maintenance free system. ½ ton should be sufficient to handle the velocities in the stream, but the pipes provide an extra barrier to rocks from "walking" away and creating a more maintenance free system. We would prefer to keep them but if it is a deal breaker with NMFS they can be removed.

I hope this answers your questions and feel free to contact me if you need additional help.

Regards,

Grant

Grant Wilcox, P.E., C.E.G.
Senior Engineer/Project Manager
WRECO
1243 Alpine Road, Suite 108
Walnut Creek, CA 94596
Phone: (925) 941-0017x226

Fax: (925) 941-0018

email: grant wilcox@wreco.com

Connect with WRECO:

From: Mario Quest [mailto:marioq@quincyeng.com]

Sent: Monday, March 11, 2013 8:19 AM To: Mike Trueblood; Grant Wilcox

Cc: HanBin Liang; Wana Chiu; Carolyn Davis; Edward Heming (Edward.Heming@lsa-assoc.com)

Subject: RE: Panoche RSP Limits and Weir Details

Hi Mike,

I got your phone message about concerns NMFS has with the weir design. To answer your questions, it might be best for you to call Grant directly at WRECO (925/941-0017 x226) to discuss why the pipe detail was used instead of larger RSP. Apparently this detail has been used before, and the pipes should not become exposed and hazardous to fish. Keep me in the loop. I would like to know how this turns out.

Thank you,

Mario Quest, P.E. | Senior Project Manager | marioq@quincyeng.com

3247 Ramos Circle, Sacramento California 95827

P: 916.368.9181 | F: 916.368.1308 | <u>www.quincyeng.com</u>

# **Appendix F** Representative Photos

NES September 2021



Existing Panoche Road Bridge looking northwest. 'S' curve in roadway would be eliminated.



Proposed staging area in California annual grassland series north of bridge, looking south.



Panoche Road Bridge looking southeast.



Low water crossing north of existing bridge, looking northwest.



APPENDIX F

Panoche Road Bridge (No. 43C0027) over Tres Pinos Creek Replacement Project San Benito County, California; Caltrans District 5 Federal Project No. BRLO-5943(056)

Representative Photos



Low water crossing north of existing bridge, looking southeast.



Tres Pinos Creek south of bridge, looking northeast.



Tres Pinos Creek north of bridge, looking southwest.



Unnamed ephemeral tributary with mulefat series, looking east.



APPENDIX F

Panoche Road Bridge (No. 43C0027) over Tres Pinos Creek Replacement Project San Benito County, California; Caltrans District 5 Federal Project No. BRLO-5943(056)

Representative Photos



Confluence of Tres Pinos Creek and unnamed ephemeral tributary south of bridge.



Mixed oak series south of Panoche Road, looking southeast.



Spring box and pump house north of Panoche Road, east of Tres Pinos Creek, looking northeast.



California annual grassland series south of Panoche Road, looking southeast. Mulefat series in background on right.



Panoche Road Bridge (No. 43C0027) over Tres Pinos Creek Replacement Project San Benito County, California; Caltrans District 5 Federal Project No. BRLO-5943(056)

Representative Photos



## **Appendix G** Hydraulic Analysis

NES September 2021



1243 Alpine Road, Suite 108 Walnut Creek, CA 94596 Phone: 925.941.0017 Fax: 925.941.0018 www.wreco.com

#### Memorandum

**Date:** March 20, 2019

**To:** Carolyn Davis, Quincy Engineering, Inc.

From: Han-Bin Liang, WRECO

Project: Panoche Road Bridge

**Subject:** Upstream Channel Bank Protection Analysis

#### Introduction

Panoche Road at Tres Pinos Creek Bridge Replacement Project (Project) proposes to remove and replace existing Panoche Road bridge over Tres Pinos Creek (Bridge No. 43C0027) with a new longer and wider bridge on an improved roadway alignment.

WRECO's hydraulic analysis of Tres Pinos Creek in the Project vicinity indicated that the proposed Project would result in increased average channel velocities upstream (north) of the bridge (relative to the existing condition). Concerns arose that the increased velocities could negatively affect the soils on the east bank by increasing their erosive potential. The erosion of these soils could in turn have the potential to negatively affect the adjacent spring water box, which is used by the Wattis' Ranch as a water source to capture groundwater from the aquifer.

The purpose of this memorandum is to summarize the velocity differences associated with Tres Pinos Creek for the existing and proposed Project conditions during the 100-year storm, and to size rock slope protection to protect the eastern bank upstream of the proposed bridge. Additional details of the hydraulic analysis are documented in the Project's Bridge Design Hydraulic Study report.

#### **Hydraulic Analysis Velocities**

The comparison of the average channel velocities at the cross sections upstream of the Project site are summarized in Table 1.

Table 1. 100-Year Velocity Comparison

River Station	Distance to Proposed	Average Channel Velocity (feet per second)	
	Bridge (feet)	Existing	Proposed
1525	225	4.1	6.2
1316	15	3.9	7.1

Based on the hydraulic analysis, the proposed condition would result in an approximately 2 to 3 feet per second increase in average channel velocity at the specified locations. The empirical velocity distributions at the cross sections are included in the appendices. Graphical depictions of the velocity distributions are also included for both the existing and proposed conditions.





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#### Recommendations

In order to address the increases in average channel velocity, rock slope protection (RSP) is proposed to be placed at the eastern bank upstream of the existing bridge. RSP generally consists of rocks on channel and structure boundaries to limit the effects of erosion. It is the most common type of scour countermeasure due to its general availability, ease of installation, and relatively low cost. It is assumed that the creek bed and bank would not be excavated for the installation of the RSP countermeasures. The avoidance of excavation would help to minimize potential impacts to the aquifer.

#### **Rock Slope Protection Calculations**

Calculations were performed using the results of the hydraulic analysis for the proposed condition to evaluate the size of RSP needed to protect the channel bank from potential erosion. The primary design concern for RSP is to determine the median particle size such that the material will not be displaced during the peak design flows. Calculations were based upon the 100-year storm. The equations from the California Department of Transportation's (Caltrans') Highway Design Manual (HDM) were used to estimate the weight of the RSP required to protect the channel bank (2018). The calculated minimum RSP classes are presented in Table 2. The RSP sizing calculations are included in the appendices.

**Table 2. Results of RSP Sizing Analysis** 

River Station	Distance to Proposed Bridge	Minimum RSP Sizing
Kiver Station	(feet)	William No. Sizing
		Class IV
1525	225	300 pounds median weight
		15 inches median particle diameter
		Class V
1316	15	1/4 ton median weight
		18 inches median particle diameter

Based on the calculations, the minimum RSP class can transition from Class IV at River Station 1525 to Class V at River Station 1316. Alternatively, Class V RSP can be placed throughout the affected reach, which would provide additional protection and simplicity of installation. According to the HDM, the minimum thickness of the RSP layer needs to be 1.5 times the median particle diameter or the maximum diameter, whichever is greater. A typical cross section recommended by the Federal Highway Administration (FHWA) for mounded toe RSP is shown in Figure 1.





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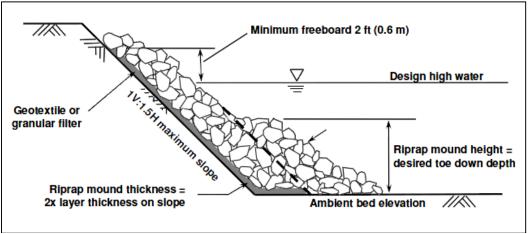


Figure 1. Mounded Toe Typical Cross Section

Source: Federal Highway Administration

The minimum layer thicknesses for the RSP are presented in Table 3.

**Table 3. Minimum RSP Layer Thicknesses** 

Outside	e Layer	Inside Layer		Total Layer
RSP Class	Minimum Layer Thickness (ft)	RSP Class Minimum Layer Thickness (ft)		Thickness (ft)
IV	2.5	N/A	N/A	2.5
V	3.0	II	1.5	4.5

The mounded thickness needs to be twice as thick as the layer thickness, which would be 5 ft for the Class IV RSP, and 9 ft for the Class V and Class II RSP system. The mounded height is recommended to be a minimum of 6 ft. The placement method for these classes of RSP is Method B, which involves dumping the rock near its planned location, and working the rock to its final position with machinery. Class 8 RSP geotextile filter fabric should be placed on the bank as a separator material between the RSP and the channel bank.





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#### References

California Department of Transportation. (2018). Highway Design Manual. 6th Edition HDM Change 12/14/18. <a href="http://www.dot.ca.gov/design/manuals/hdm.html">http://www.dot.ca.gov/design/manuals/hdm.html</a> (Last accessed: March 20, 2019).

Federal Highway Administration. (2009). *Bridge Scour and Stream Instability Countermeasures: Experience, Selection, and Design Guidance.* Hydraulic Engineering Circular No. 23. Third Edition.





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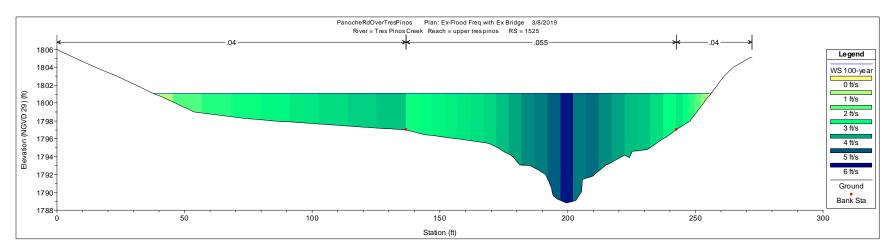
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#### **Appendices**

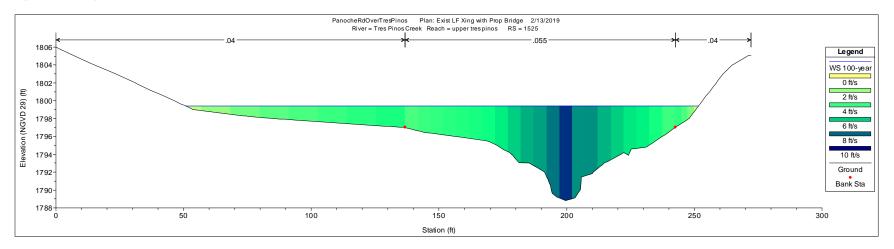
- Hydraulic Analysis Empirical Velocity Distributions
- Rock Slope Protection Calculations



#### At Upstream Cross Section (River Station 1525)



**Figure 1. Existing Condition Cross Section** 



**Figure 2. Proposed Condition Cross Section** 

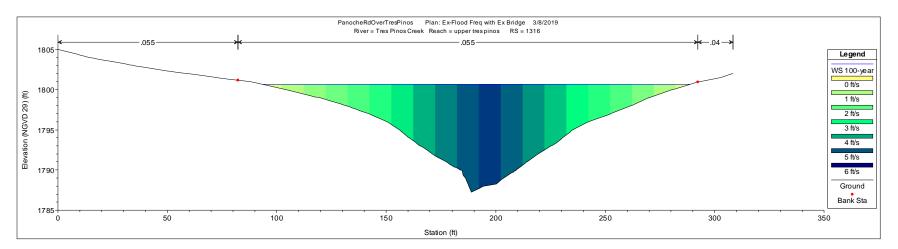


**Table 1. Velocity Comparison at River Station 1525** 

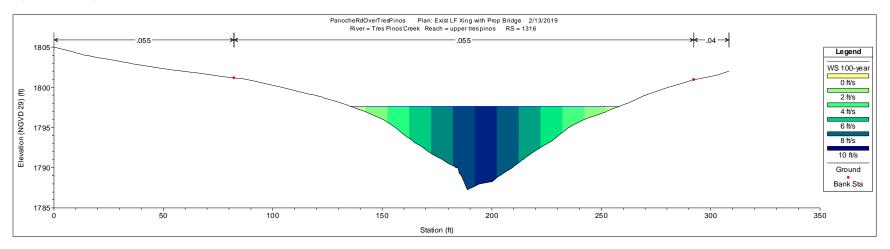
Segment No.	Left Station (ft)	Right Station (ft)	Velocity (ft/s)		∆ Velocity (ft/s)
	, ,	, ,	Existing	Proposed	,
1	34	46	0.9	N/A	
2	46	57	2.1	1.3	-0.8
3	57	68	2.6	2.1	-0.5
4	68	80	2.9	2.8	-0.1
5	80	91	3.1	3.3	0.2
6	91	103	3.3	3.6	0.4
7	103	114	3.4	3.9	0.5
8	114	125	3.5	4.2	0.7
9	125	137	3.7	4.5	0.9
10	137	142	2.9	3.6	0.7
11	142	147	3.0	3.9	0.9
12	147	152	3.1	4.1	1.0
13	152	157	3.2	4.2	1.1
14	157	162	3.3	4.4	1.1
15	162	167	3.4	4.6	1.2
16	167	172	3.5	4.8	1.3
17	172	177	3.7	5.3	1.6
18	177	182	4.1	6.0	1.9
19	182	187	4.4	6.6	2.2
20	187	192	4.5	6.8	2.3
21	192	197	4.9	7.7	2.8
22	197	202	5.7	9.1	3.3
23	202	207	4.6	7.2	2.6
24	207	212	4.7	7.2	2.5
25	212	217	4.3	6.5	2.1
26	217	222	4.1	6.0	1.9
27	222	227	3.8	5.4	1.7
28	227	232	3.7	5.3	1.6
29	232	237	3.4	4.6	1.3
30	237	242	3.0	3.8	0.9
31	242	245	3.3	4.1	0.9
32	245	247	3.0	3.5	0.6
33	247	250	2.5	2.5	0.0
34	250	252	1.9	1.1	-0.8
35	252	255	1.2	N/A	
36	255	257	0.5	N/A	



#### At Downstream Cross Section (River Station 1316)



**Figure 3. Existing Condition Cross Section** 



**Figure 4. Proposed Condition Cross Section** 



**Table 2. Velocity Comparison at River Station 1316** 

Segment No.	Left Station (ft)	Right Station (ft)	Velocity (ft/s)		Δ Velocity (ft/s)
			Existing	Proposed	
1	92	102	0.4	N/A	
2	102	112	0.9	N/A	
3	112	122	1.3	N/A	
4	122	132	1.7	N/A	
5	132	142	2.2	1.0	-1.2
6	142	152	2.6	2.4	-0.2
7	152	162	3.2	4.2	1.0
8	162	172	3.9	6.0	2.1
9	172	182	4.5	7.3	2.9
10	182	192	5.0	8.6	3.7
11	192	202	5.3	9.3	4.0
12	202	212	4.9	8.3	3.4
13	212	222	4.3	6.8	2.6
14	222	232	3.7	5.4	1.7
15	232	242	3.0	3.7	0.6
16	242	252	2.6	2.3	-0.3
17	252	262	2.1	1.0	-1.2
18	262	272	1.6	N/A	
19	272	282	1.0	N/A	
20	282	292	0.4	N/A	



#### Panoche Road Bridge over Tres Pinos Creek San Benito County, California

#### **Streambank Rock Slope Protection**

#### **Calculation guideline from Caltrans Highway Design Manual**

Input from HEC-RAS for Proposed Bridge 100-year Flow

Input:

Location along stream:

**River Station** 

 $V_{\text{avg}}$ 

~

Depth based on

y S<sub>f</sub>

 $C_s$ 

Cross section location:

For outside of bends, need R<sub>c</sub> and W:

Upstream	Downstream	
1525	1316	
6.2	7.1	ft/s
32.2	32.2	ft/s ft/s <sup>2</sup>
Average	Average	
5.4	4.6	ft
1.1	1.1	
0.3	0.3	
Outside of bend	Outside of bend	
1.25	1.21	

R<sub>c</sub>

٧

 $C_t$  $S_{\sigma}$ 

Type of channel:

 $V_{\text{des}}$ 

 $K_1$ 

θ

SS

 $D_{30}$ 

 $D_{50}$ 

 $D_{50}$ 

300	300	ft
201	123	ft
1.0	1.0	
2.65	2.65	

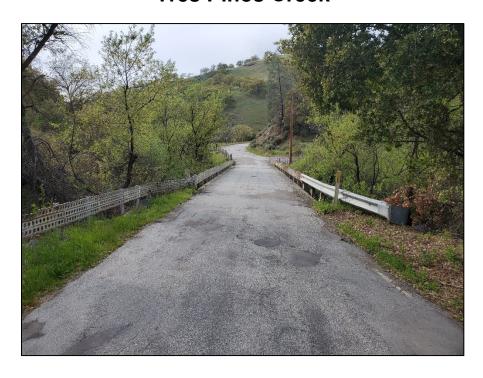
Natural	Natural	
10.2	11.0	ft/s
0.72	0.72	
33.7	33.7	degrees
1.5	1.5	
0.9	1.1	ft
1.1	1.4	ft
13.5	16.4	inches

IV	V	RS
300 lb	1/4 ton	Μe
15	18	Μe

RSP Class Median particle weight

Median particle diameter (inches)

# Panoche Road Bridge (No. 43C0027) Replacement at Tres Pinos Creek



### **Biological Assessment**

San Benito County, California
05-SBT-0-CR

Federal Project No. BRLO-5943 (056)

August 2021



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