STUDY REPORT TR-07 CALIFORNIA RED-LEGGED FROG

ATTACHMENT A

DETAILED SITE ASSESSMENT RESULTS

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1.0 DON PEDRO RESERVOIR STUDY AREA

CRLF is typically associated with low-gradient streams (Hayes and Jennings 1988), backwaters, and lentic habitat with emergent vegetation, although habitats lacking vegetation are sometimes used. Suitable CRLF breeding habitat is defined as:

Low-gradient fresh water bodies, including natural and manmade (e.g., stock) ponds, backwaters within streams and creeks, marshes, lagoons, and dune ponds....To be considered essential breeding habitat, the aquatic feature must have the capability to hold water for a minimum of 20 weeks in all but the driest of years (USFWS 2010).

Existing aerial photography and National Wetlands Inventory (NWI) digital map data (USFWS 1987) were used to identify and map locations potentially suitable for CRLF breeding, or aquatic sites that hold water for a minimum of 20 weeks during the CRLF breeding season. Other aquatic habitats potentially affected by the Project that may be utilized by CRLF for dispersal, foraging, or predator avoidance were also identified and mapped through review of available data and reconnaissance level field assessments. Following habitat mapping, potentially suitable aquatic habitats sufficient for field visits were selected based on review of historical data and additional habitat characterization. Data were collected at each site sufficient to complete a Habitat Site Assessment Data Sheet (Appendix D of USFWS 2005) at each site where reconnaissance level examination was performed, along with photographs depicting habitat and other notable findings.

A total of 337 sites were assessed in the Don Pedro Reservoir study area, including 73 sites within the Don Pedro Hydroelectric Project's (Project) FERC Project Boundary (Table 1.0-1). Don Pedro Reservoir is located on Turlock Irrigation District (TID), Modesto Irrigation District (MID), and the US Department of the Interior, Bureau of Land Management (BLM) land. The Don Pedro Reservoir has a normal maximum water surface elevation of 830 ft, and has a capacity of 2,030,000 acre-feet of water. A study area extending 1.6 km (1.0 mile) from the FERC Project Boundary of Don Pedro Reservoir was evaluated for California red-legged frog (*Rana draytonii*) (CRLF).

Don Pedro Reservoir is a relatively deep reservoir, with still or slow-moving water, and mostly steeply sloped banks. Predatory fish, including bass, are abundant. Deep lacustrine water bodies, particularly where fish occur, are not known to provide breeding habitat for CRLF (USFWS 2006), although adult CRLF have been reported to occur at some reservoirs (USFWS 2002).

Land ownership within the 1-mile study area is principally MID, TID, and BLM, with some private and other publicly owned land. Existing land uses include ranching, limited residential development and recreation. Uplands in the study area consist of blue and live oak woodland, oak-foothill pine, scrub-shrub chaparral, and annual grassland. Much of the terrain is rugged and was inaccessible for field assessments due to private property restrictions, steep slopes, and lack of roads. Potential barriers to CRLF dispersal include steep terrain, highways, including State Route (SR) 120, SR 59, SR 139, and SR 49, and Don Pedro Reservoir. Two historic CRLF locations occur within the vicinity of the project. Both records are from before 1984, and it is assumed that CRLF have been extirpated from these areas in recent history.

Of the 337 sites, 85 were assessed in the field including 73 that occur within the FERC Project Boundary. One site was assessed from a distance due to safety concerns. The remaining 252 sites were not accessible for on-site assessment or were not within the FERC boundary, and were therefore characterized from aerial imagery, existing site photographs, U.S. Geological Service (USGS) topographic mapping, and other existing descriptive information. Sites were evaluated to determine if water was present for at least 20 weeks during the CRLF breeding season, the key component of CRLF breeding habitat according to the USFWS (2002).

There are two known historical CRLF occurrences within 1 mile of the Don Pedro Reservoir study area, on Piney Creek. Piney Creek is a tributary to Lake McClure, located east of Don Pedro Reservoir. These occurrences were located in a ravine with a deep pool upstream of Highway 132 (Basey, 2010), and at another pool further upstream (USFWS, 2010; Jennings, 2010). American bullfrogs (*Lithobates catesbeianus*) were also found in two other pools on Piney Creek at the time of the CRLF observations. The Piney Creek occurrence is presumed extirpated, based on field investigations conducted by the USFWS (2002).

1.1 Sites Potentially Suitable for CRLF within the Project Boundary

Table 1.1-1.	Summary of sites assessed for potential California red-legged frog breeding habitat
	within the Don Pedro Project Boundary. (73 sites)

Site Number	Habitat Feature/Seasonality/Location	Date Field Assessed	Meets 20-Week Criterion	Notes
F1	Stream, intermittent (unnamed), Hatch Creek Arm	02/09/12	No	American bullfrog tadpoles present
F2	Stream, intermittent (unnamed), near Marsh Flat Road	02/07/12	No	
F3	Stream, perennial (unnamed), near Marshes Flat Road	02/08/12	Yes	Includes stream and in-stream pool
F5	Pond, perennial impoundment in West Fork Big Creek	04/17/12	No	American bullfrog juvenile present
F7	Stream, ephemeral, Upper Bay	06/19/12	No	
F8	Stream, ephemeral, Upper Bay	06/19/12	No	
F9	Stream, ephemeral, Upper Bay	06/19/12	No	
F10	Stream, ephemeral, Upper Bay	06/19/12	No	
F11	Stream, perennial, West Fork Big Creek	04/19/12	Yes	Adult American bullfrog present Fish present
F12	Stream, perennial (unnamed), Big Creek Arm	04/19/12	Yes	Juvenile American bullfrogs present Sierran treefrog tadpoles present Fish present
F13	Stream, perennial (unnamed), 49er Bay	04/19/12	Yes	Adult and juvenile American bullfrog present Western toad tadpoles present Fish present
F14	Stream, ephemeral, Upper Bay	06/19/12	No	
F15	Stream, perennial (Big Creek), near Old Don Pedro Road	04/17/12	Yes	American bullfrog juveniles and tadpoles present Western toads present
F17	Stream, perennial, Poor Man's Gulch	02/09/12	Yes	
F19	Stream, ephemeral, Upper Bay	06/19/12	No	
F20	Stream, ephemeral, Upper Bay	06/19/12	No	
F22	Stream, perennial and associated pond, Big Creek Arm	04/19/12	Yes	Adult American bullfrog present Fish present
F23	Stream, ephemeral, Upper Bay	06/19/12	No	
F24	Stream, ephemeral, Upper Bay	06/19/12	No	
F25	Stream, perennial, Wreck Bay	06/19/12	Yes	Bullfrog tadpoles present Fish present
F26	Stream, intermittent (unnamed), near Grizzly Road	02/07/12	No	
F27	Stream, perennial, Deer Creek	02/09/12	Yes	American bullfrog tadpoles present

Site Number	Habitat Feature/Seasonality/Location	Date Field Assessed	Meets 20-Week Criterion	Notes
F29	Stream, seasonal, North of SR 120	06/18/12	No	
F30	Stream, perennial, Kanaka Creek, near Jacksonville Road	02/09/12	Yes	
F31	Stream, seasonal (unnamed), in Moccasin Point Marina	02/07/12	No	
F32	Stream, perennial (unnamed), near Jacksonville Road	02/09/12	Yes	
F33	Stream, seasonal (unnamed), near Grizzly Road	02/07/12	No	
F34	Stream, seasonal (unnamed), near Moccasin Creek D Road	02/07/12	No	
F35	Stream, perennial, Woods Creek	04/18/12	Yes	American bullfrog adult present
F36	Stream, seasonal (unnamed) , near Molina Street	04/19/12	Yes	American bullfrog adults present Fish present
F38	Stream, ephemeral, Upper Bay	06/19/12	No	
F39	Stream, seasonal (unnamed), 49er Bay	04/19/12	No	
F40	Pond, seasonal (unnamed), near SR 132	02/08/12	No	Sierran treefrog adults present
F41	Pond, perennial, near SR 132	02/08/12	Yes	American bullfrog juvenile present
F43	Pond, perennial, impoundment in West Fork Big Creek	04/17/12	Yes	Unidentified frog species present Western pond turtle present
F45	Pond, perennial, near Fleming Meadows Recreation Area	02/08/12	Yes	Constructed sewage treatment pond
F46	Pond, perennial, near Blue Oaks Recreation Area	02/08/12	Yes	Constructed sewage treatment pond
F47	Pond, perennial (unnamed), at Fleming Meadows Recreation Area	02/08/12	Yes	Public swimming pool
F48	Pond, perennial, impoundment in Lucas Gulch	04/19/12	Yes	Below Don Pedro Reservoir high water line Western toad tadpoles present
F49	Pond, perennial, near Bonds Flat Road	02/08/12	Yes	Constructed sewage treatment pond
F50	Pond, perennial, near Blue Oak Recreation Area	02/08/12	Yes	Constructed sewage treatment pond
F51	Pond, perennial, near Moccasin Point Recreation Area	02/07/12	Yes	Constructed sewage treatment pond
F52	Pond, perennial, near Moccasin Point Recreation Area	02/07/12	Yes	Constructed and disturbed sewage treatment pond
F53	Stream, seasonal (unnamed), near Hoyito Circle	04/19/12	Unknown	Within 1 mile of historical California Red Legged Frog occurrence
F54	Stream, perennial Sixbit Gulch	04/19/12	Yes	American bullfrog present Fish present

Site Number	Habitat Feature/Seasonality/Location	Date Field Assessed	Meets 20-Week Criterion	Notes
F60	Pond, seasonal, near Jacksonville Road	04/18/12	Yes	Below Don Pedro Reservoir high water line American bullfrog adults, juvenile, and tadpoles present
F61	Stream, perennial (unnamed), near Marshes Flat Road	02/07/12	Yes	Includes the stream and pool in stream
F62	Upland, near Marshes Flat Road	02/07/12	No	No aquatic feature present
F63	Upland, near Marshes Flat Road	02/07/12	No	No aquatic feature present
F64	Upland, near Marshes Flat Road	02/07/12	No	No aquatic feature present
F65	Pond, ephemeral, near Marshes Flat Road	02/07/12	No	
F66	Stream, seasonal (unnamed), near Marshes Flat Road	04/19/12	No	American bullfrog juvenile present
F68	Stream, seasonal (unnamed),	04/19/12	No	
F69	Stream, perennial (unnamed), near Bonds Flat Road	02/08/12	Yes	
F70	None	02/08/12	No	No aquatic feature present
F73	Stream, intermittent (unnamed), in Moccasin Point Recreation Area	02/07/12	No	
F75	Stream, seasonal (unnamed)	04/19/12	Unknown	American bullfrog juvenile present
F77	Pool in spillway channel	02/08/12	Yes	Unidentified frog species present
F78	Pool in spillway channel	02/08/12	Yes	Unidentified frog species present
F80	Pool in spillway channel	02/08/12	Yes	Fish presence highly likely
F81	Stock pond, near Bonds Flat Road	02/08/12	Unknown	Generally manually filled by the Tuolumne Irrigation District each year at the request of a local cattle rancher
F82	Pool in spillway channel	N/A	Yes	Assessed aerially due to safety concerns.
F83	Pool in spillway channel	N/A	Yes	Assessed aerially due to safety concerns
F84	Stream, perennial (Big Creek), crosses La Grange Road	02/08/12	Yes	
F85	Pool in spillway channel	N/A	Yes	Assessed aerially due to safety concerns
F86	Pool in spillway channel	N/A	Yes	Assessed aerially due to safety concerns
F87	Pool in spillway channel	N/A	Yes	Assessed aerially due to safety concerns
F88	Pool in spillway channel	N/A	Yes	Assessed aerially due to safety concerns
F89	Pool in spillway channel	02/08/12	Yes	Assessed from 50 ft. away due to access restrictions
F90	Stock pond, perennial, south of Bonds Flat Road	02/08/12	Yes	
F91	Stream, seasonal (unnamed), near Moccasin Creek D Road	02/07/12	No	

Site Number	Habitat Feature/Seasonality/Location	Date Field Assessed	Meets 20-Week Criterion	Notes
F96	Pool in seasonal stream (unnamed), near Old Don Pedro Road	N/A	No	Assessed aerially due to safety concerns
F100	Stream, perennial (Hatch Creek), crosses Sunset Oaks Lane	02/07/12	Yes	Trout (6 inches long) present



F1 is a 58-m-long section of an unnamed tributary, a tributary to the Hatch Creek arm of Don Pedro Reservoir, located partially below the high water line of the reservoir within the FERC Project Boundary. F1 is 2.7 km from the nearest known CRLF occurrence. National Wetlands Inventory (NWI) data (USFWS 2012) depict a riverine, intermittent, streambed, temporarily flooded (R4SBA) wetland feature in the area of the site.

F1

The site was assessed on February 9, 2012. F1 is a

seasonal stream that flows in a valley located in a landscape characterized by rolling hills. The bank full width was 2 m with a depth of 0.5 meter. The stream gradient was 4 - 5 percent. Pools measuring up to 1 m x 0.3 m and 0.05 m deep were present in the streameter. Non-pool habitat was a combination of riffle and run. The substrate was made up of soil, cobble, and boulder. Stream banks were gently to moderately sloping and comprised of vegetated soil. Emergent vegetation consisted of grasses and forbs with no vegetation overhanging the site. Upland habitat was a mix of oak (*Quercus* sp.) and foothill pine (*Pinus sabiniana*) woodland.

F1 does not hold water for at least 20 weeks during the CRLF breeding season and therefore does not represent potential CRLF breeding habitat.



F2 is a 112-m-long section of an unnamed intermittent tributary to Don Pedro Reservoir, located approximately 65 m west of Marsh Flat Road, partially below the high water line of Don Pedro Reservoir, and within the FERC Project Boundary. F2 is 2.5 km from the nearest known CRLF occurrence. NWI data depict F2 as a riverine, intermittent, streambed, seasonally flooded (R4SBC) wetland feature.

The site was assessed on February 7, 2012. F2 is adjacent to F63. The bank full width was estimated to

be 2 m and the bank full depth was estimated to be 1.5 meter. The stream gradient was 4 percent. One pool was present, measuring approximately 6 m x 2 m, with a maximum depth of 0.2 meter. Non-pool habitat was riffle. The substrate was sand and vegetated soil. The banks were steeply sloping and consisted of vegetated soil that was eroded in places. Upland grasses made up the emergent vegetation and aquatic vegetation was dominated by duckweed (*Lemna* sp.). Oak and Himalayan blackberry (*Rubus discolor*) were overhanging. No fish or amphibians were observed; however, fish are known to be present in Don Pedro Reservoir. Surrounding upland habitat was a combination of oak and foothill pine woodland; below the high water line, canopy cover was minimal.

F2 does not hold water for at least 20 weeks during the CRLF breeding season and therefore does not represent potential CRLF breeding habitat.

Site F3



F3

F3 is a freshwater pond formed at the confluence of three perennial tributaries to Don Pedro Reservoir, located east of SR 182, 65 m east of Don Pedro Reservoir, and within the FERC Project Boundary. F3 is 4 km from the nearest known CRLF occurrence. NWI data for the area depict a palustrine, unconsolidated bottom, permanently flooded, diked/impounded (PUBHh) wetland feature in the area of the site.

The site was assessed on February 8, 2012. The bank

full width was estimated at 1.5 m with a maximum depth of 0.5 m. The stream gradient was approximately 3 percent. Pools measuring up to 5 m x 1.5 m and 0.1 m deep were present at the site. Non-pool habitat was made up of riffles. Substrate consisted of silt. Banks were gently sloping with an incised vegetated channel. The dominant emergent and margin vegetation was grass with no overhanging vegetation present. Surrounding upland habitat consisted of blue oak (*Quercus douglasii*) pastureland. A juvenile American bullfrog was observed during the survey.

F3 holds water for at least 20 weeks during the CRLF breeding season and therefore may represent potential CRLF breeding habitat. However, lack of overhanging vegetation and the presence of American bullfrogs diminish the potential suitability of this site.

Site F5



F5 is a 152-m-long section of an unnamed intermittent tributary Don Pedro to Reservoir. located approximately 75 m north of SR 132, partially below the high water line of Don Pedro Reservoir and within the FERC Project Boundary. F5 is 4 km from the nearest known CRLF occurrence. NWI data for the area depict a riverine, intermittent, streambed, temporarily flooded (R4SBA) wetland feature from the mouth of the reservoir to 350 m upstream, including Site F5, which becomes a freshwater emergent seasonal (PEMC) wetland feature further upstream.

The site was assessed on February 8, 2012. The bank full width was estimated at 1.5 m and depth was 0.5 m. The stream gradient was 3.5 percent. Pools measuring up to 3 m x 0.75 m and 0.1 m deep were present in the stream. Non-pool habitat was a mix of riffle, cascade, and run. The substrate consisted of angular cobbles and boulders. The banks of the channel were incised and consisted of soil with emergent vegetation. Willows (*Salix* sp.) and grasses were the dominant vegetation at the site, with willows overhanging the stream. No fish or amphibians were observed; however, fish are known to be present in Don Pedro Reservoir. Surrounding upland habitat was blue oak pastureland, with the canopy cover minimal below the high water line and increasing to 30 percent upstream of the assessment location.

F5 does not hold water for at least 20 weeks during the CRLF breeding season and therefore does not represent potential CRLF breeding habitat.

Site F7



F7 is a 32-m-long section of an ephemeral tributary to Don Pedro Reservoir at Upper Bay, below the high water line and within the FERC Project Boundary. F7 is 10 km from the nearest known CRLF occurrence. NWI data for the area depict a riverine, intermittent, streambed, temporarily flooded (R4SBA) wetland feature.

The site was assessed on June 19, 2012. F7 is in the vicinity of seven other ephemeral tributaries to Don Pedro Reservoir at Upper Bay. The bank full width

was 1 m with a depth of 0.25 m. The stream gradient was 4 percent. The stream was dry at the time of survey, but it was assumed that pools would be present during flow conditions. Non-pool habitat was assumed to be a mix of riffle and cascade. The substrate was made up of soil and

bedrock with some cobbles. The stream banks were very shallow and vegetated with grasses, sloping to steeper bedrock in places. Emergent vegetation consisted of grasses and forbs below the high water line. Buckthorn, oak, and foothill pine were overhanging the stream channel above the high water line and were the dominant vegetation in the uplands. No fish or amphibians were observed; however, fish are known to be present in Don Pedro Reservoir.

F7 does not hold water for at least 20 weeks during the CRLF breeding season and therefore does not represent potential CRLF breeding habitat.

Site F8



F8

F8 is a 45-m-long section of an ephemeral tributary to the upper bay of Don Pedro Reservoir, below the high water line of Don Pedro Reservoir within the FERC Project Boundary. F8 is 10 km from the nearest known CRLF occurrence. NWI data for the area depict a riverine, intermittent, streambed, temporarily flooded (R4SBA) wetland feature in the area of the site.

The site was assessed on June 19, 2012. F8 is in the vicinity of seven other ephemeral tributaries to the upper bay of Don Pedro Reservoir. The bank full width

was 1 m with a depth of 0.25 m. The stream gradient was 4 percent. The stream was dry at the time of survey, but it was assumed that no pools were present. Non-pool habitat was assumed to be riffle during flow conditions. The substrate was made up of soil and bedrock with some cobbles. The stream bank varied from gently sloping to steep bedrock and cobbles with grass present in flat areas. Emergent and margin vegetation consisted of grasses and forbs below the high water line, with buckthorn and oak in the upland and overhanging the stream channel in some areas. No fish or amphibians were observed; however, fish are known to be present in Don Pedro Reservoir.

F8 does not hold water for at least 20 weeks during the CRLF breeding season and therefore does not represent potential CRLF breeding habitat.

Site F9



F9

F9 is a 37-m-long section of an ephemeral tributary to the upper bay of Don Pedro Reservoir, below the high water line of Don Pedro Reservoir within the FERC Project Boundary. F9 is 9.8 km from the nearest known CRLF occurrence. NWI data for the area depict a riverine, intermittent, streambed, temporarily flooded (R4SBA) wetland feature in the area of the site.

The site was assessed on June 19, 2012. F9 is in the vicinity of seven other ephemeral tributaries to the upper bay of Don Pedro Reservoir. The bank full width

was 2 m with a depth of 1 m. The stream gradient was 6 percent. The stream was dry at the time of survey, but it was assumed that pools would be present during flow conditions. Non-pool habitat was assumed to be a mix of cascade, riffle, and step-pool. The substrate was made up of soil and grasses that were present throughout the stream channel. Stream banks consisted of somewhat steep bedrock. Emergent and margin vegetation consisted of grasses, with one oak overhanging the stream channel. Upland habitat was dominated by buckthorn (*Ceanothus* sp.). No fish or amphibians were observed; however, fish are known to be present in Don Pedro Reservoir.

F9 does not hold water for at least 20 weeks during the CRLF breeding season and therefore does not represent potential CRLF breeding habitat.

Site F10



F10

F10 is a 53-m-long section of an ephemeral tributary to the upper bay of Don Pedro Reservoir, below the high water line of Don Pedro Reservoir within the FERC Project Boundary. F10 is 9.7 km from the nearest known CRLF occurrence. NWI data for the area depict a riverine, intermittent, streambed, temporarily flooded (R4SBA) wetland feature in the area of the site.

The site was assessed on June 19, 2012. F10 is in the vicinity of seven other ephemeral tributaries to the upper bay of Don Pedro Reservoir. There was no

defined stream channel, so bank full width and depth could not be estimated. The stream was dry at the time of survey, but it was assumed that no pools would be present. Non-pool habitat was assumed to be riffle during flow conditions. The substrate was made up of soil and grasses that were present throughout the stream channel. Emergent and margin vegetation consisted of desiccated grasses, with buckthorn and Manzanita in the upland and overhanging the stream channel in some areas. No fish or amphibians were observed; however, fish are known to be present in Don Pedro Reservoir.

F10 does not hold water for at least 20 weeks during the CRLF breeding season and therefore does not represent potential CRLF breeding habitat.



F11

F11 is a 591-m-long section of West Fork Big Creek, a perennial tributary to Don Pedro Reservoir, located partially below the high water line of Don Pedro Reservoir within the FERC Project Boundary. F11 is 17 km from the nearest known CRLF occurrence. NWI data for the area depict a riverine, intermittent, streambed, seasonally flooded (R4SBC) wetland feature in the area of the site.

The site was assessed on April 19, 2012. F11 is a perennial stream. The bank full width was 4 m with a depth of 1 meter. The stream gradient was 2 percent.

Pools measuring up to 2 m x 5 m and 0.75 m deep were present in the stream. Non-pool habitat consisted of riffle, run, and step-pool. The substrate was made up of bedrock and cobbles. Stream banks varied from low gradient to steeper areas of vegetated soil with some bedrock outcroppings. Emergent vegetation was a mix of grasses and forbs, with willow overhanging the site. Upland habitat was made up of oak, a few pines, and shrubs. American bullfrogs and small fish were observed at the site during the survey.

F11 holds water for at least 20 weeks during the CRLF breeding season and therefore may represents potential CRLF breeding habitat. However, the presence of fish and American bullfrogs diminishes the potential suitability of this site.

Site F12



F12

F12 is a 58-m-long section of an unnamed perennial tributary to the Big Creek arm of Don Pedro Reservoir, located 40 m northeast of Don Pedro Reservoir within the FERC Project Boundary. F12 is 8.7 km from the nearest known CRLF occurrence. NWI data for the area depict a riverine, intermittent, streambed, seasonally flooded (R4SBC) wetland feature in the area of the site.

The site was assessed on April 19, 2012. F12 is a depressional stream formed in bedrock outcroppings. The bank full width was 4 m with a depth of 1.2 m. The

stream gradient was 2 - 4 percent. Pools measuring up to 5 m x 3 m and 0.5 m deep were present in the stream. Non-pool habitat consisted of low gradient run and riffle. The substrate was made up of bedrock and some cobbles. Banks around non-pool habitat were undercut by the stream. Emergent vegetation was made up of rushes, grasses, forbs, and submerged pondweed (*Potamogeton* sp.) with no vegetation overhanging the site. Upland habitat was made up of oak savannah with 40 percent canopy cover. Juvenile American bullfrogs (*Rana catesbeiana*), many larval sierran treefrogs (*Pseudacris sierra*), and fish were all observed during the site visit. F12 holds water for at least 20 weeks during the CRLF breeding season and therefore represents potential CRLF breeding habitat. However, lack of overhanging vegetation and the presence of fish diminish the potential suitability of this site.

Site F13



F13 is a 736-m-long section of an unnamed perennial tributary to 49er Bay, located 15 m south of Old Don Pedro Road, partially below the high water line of Don Pedro Reservoir and within the FERC Project Boundary. F13 is 7.3 km from the nearest known CRLF occurrence. NWI data for the area depict a riverine, intermittent, streambed, seasonally flooded (R4SBC) wetland feature in the area of the site.

The site was assessed on April 19, 2012. F13 is a series of pools within a stream and is not located near any

other sites. The pools and stream were fed by two smaller streams, one perennial and one seasonal. The bank full width was 8 m with a depth of 1 meter. The stream gradient was 2 - 4 percent. Pools measuring up to 20 m x 3 m and 0.5 m deep were present in the stream. Non-pool habitat consisted of low gradient run and riffle. The substrate was made up of organic matter, soil, and some subangular cobbles. Stream banks were mainly low gradient vegetated soil, and those around non-pool habitat were undercut by the stream. Emergent vegetation was made up of rushes, grasses, forbs, and submerged pondweed with no vegetation overhanging the site. Upland habitat was made up of oak savannah with 60 percent canopy cover. Larval western toads (*Anaxyrus boreas*), adult and juvenile American bullfrogs, larval sierran treefrog, and fish were all observed during the site visit. A small dirt road crossed the stream within the site.

F13 holds water for at least 20 weeks during the CRLF breeding season and therefore represents potential CRLF breeding habitat. However, lack of overhanging vegetation and the presence of American bullfrogs diminish the potential suitability of this site.

Site F14



F14 is a 45-m-long section of an ephemeral tributary to the upper bay of Don Pedro Reservoir, below the high water line of Don Pedro Reservoir within the FERC Project Boundary. F14 is 9.5 km from the nearest known CRLF occurrence. NWI data for the area depict a riverine, intermittent, streambed, temporarily flooded (R4SBA) wetland feature in the area of the site.

The site was assessed on June 19, 2012. F19 is in the vicinity of seven other ephemeral tributaries to the upper bay of Don Pedro Reservoir. The bank full width was 7–10m with a depth of 2-3 m, but the channel was

not well defined. The stream gradient was 6 percent. The stream was dry at the time of survey,

but it was assumed that no pools would be present. Non-pool habitat was assumed to be riffle during flow conditions. The substrate was made up of soil and grasses that were present throughout the stream channel. Stream banks were gently sloping and covered with grass with some rocks where the stream approached the reservoir. Emergent and margin vegetation consisted of grasses, with oak in the upland and overhanging the stream channel in the upstream portion of the site. Manzanita and buckthorn were also present in the upland habitat. No fish or amphibians were observed; however, fish are known to be present in Don Pedro Reservoir.

F14 does not hold water for at least 20 weeks during the CRLF breeding season and therefore does not represent potential CRLF breeding habitat.

Site F15



F15

F15 is a 1,218-m-long section of Big Creek and associated tributaries, located partially below the high water line of Don Pedro Reservoir within the FERC Project Boundary. F15 is 12.2 km from the nearest known CRLF occurrence. NWI data for the area depict a riverine, intermittent, streambed, seasonally flooded (R4SBC) wetland feature from the mouth at the reservoir upstream.

The site was assessed on April 17, 2012. Big Creek is a large perennial tributary to Don Pedro Reservoir in a landscape characterized by bedrock outcroppings. The

bank full width of the stream was observed to be 7 - 8 m with a depth of 0.5 m. The stream gradient was 2 - 4 percent. Pools measuring up to 1 m x 3 m and 1.5 m deep were present in the stream. Non-pool habitat consisted of riffle, run, and cascade. The substrate was made up of bedrock, gravel, cobble, and boulder. Stream banks were low gradient near the stream, turning to steeper rolling hills. Emergent and margin vegetation were a combination of grasses and forbs with no vegetation overhanging the site. Upland habitat was a mixed oak and foothill pine savannah with approximately 45 percent canopy cover. Juvenile and larval American bullfrogs were present throughout the site, and 3 western toads were observed in amplexus during the survey. A bald eagle was observed feeding on a bass near the stream with a juvenile or subadult nearby. Horses were observed grazing near the stream.

F15 holds water for at least 20 weeks during the CRLF breeding season and therefore represents potential CRLF breeding habitat. However, lack of overhanging vegetation and the presence of American bullfrogs diminish the potential suitability of this site.



F17

F17 is a 187-m-long section of Poor Man's Gulch, below the high water line of Don Pedro Reservoir within the FERC Project Boundary. F17 is 12.8 km from the nearest known CRLF occurrence. NWI data for the area depict a riverine, intermittent, streambed, seasonally flooded (R4SBC) wetland feature in the area of the site.

The site was assessed on February 9, 2012. F17 is a section of a perennial stream north of F65. The bank full width was 6 m with a depth of 1.5 - 2 m. The

stream gradient was 2 - 4 percent. Pools measuring up to 10 m x 6 m and 0.8 m deep were present in the stream. Non-pool habitat was a combination of cascade, step-pool, run, and low gradient riffle. The substrate was made up of bedrock, boulder, and subangular cobble. Stream banks were a mix of confined, steep rocky soil and low gradient vegetated soil. Emergent vegetation was consisted of grasses with foothill pine overhanging. Upland habitat was made up of foothill pine woodland and toyon (Heteromeles arbutifolia). No fish or amphibians were observed; however, fish are known to be present in Don Pedro Reservoir.

F17 holds water for at least 20 weeks during the CRLF breeding season and therefore may represent potential CRLF breeding habitat.

Site F19



F19

F19 is a 26-m-long section of an ephemeral tributary to the upper bay of Don Pedro Reservoir, below the high water line of Don Pedro Reservoir within the FERC Project Boundary. F19 is 9.8 km from the nearest known CRLF occurrence. NWI data for the area depict a riverine, intermittent, streambed, temporarily flooded (R4SBA) wetland feature in the area of the site.

The site was assessed on June 19, 2012. F19 is in the vicinity of seven other ephemeral tributaries to the upper bay of Don Pedro Reservoir. The bank full width was 7 m with a depth of 1 m, but the channel was not

well defined. The stream gradient was 6 percent. The stream was dry at the time of survey, but it was assumed that no pools would be present. Non-pool habitat was assumed to be riffle during flow conditions. The substrate was made up of soil and grasses that were present throughout the stream channel. Stream banks were gently sloping bedrock and gravel. Emergent and margin vegetation consisted of grasses, with buckthorn and other scrub/shrubs in the upland and overhanging the stream channel in the upstream portion of the site. No fish or amphibians were observed; however, fish are known to be present in Don Pedro Reservoir.

F19 does not hold water for at least 20 weeks during the CRLF breeding season and therefore does not represent potential CRLF breeding habitat.

Site F20



F20 is a 33-m-long section of an ephemeral tributary to the upper bay of Don Pedro Reservoir, below the high water line of Don Pedro Reservoir within the FERC Project Boundary. F20 is 9.7 km from the nearest known CRLF occurrence. NWI data for the area depict a riverine, intermittent, streambed, temporarily flooded (R4SBA) wetland feature in the area of the site.

The site was assessed on June 19, 2012. F20 is in the vicinity of seven other ephemeral tributaries to the upper bay of Don Pedro Reservoir. There was no defined stream channel, so bank full width and depth

could not be estimated. The stream gradient was 6 percent. The stream was dry at the time of survey, but it was assumed that no pools would be present. Non-pool habitat was assumed to be a mix of riffle and cascade during flow conditions. The substrate was made up of soil and grasses that were present throughout the stream channel and bedrock with some cobbles in the upstream section. Emergent and margin vegetation consisted of grasses, with buckthorn in the upland and overhanging the stream channel in the upstream portion of the site. The upland habitat was a combination of pine and scrub/shrub. No fish or amphibians were observed; however, fish are known to be present in Don Pedro Reservoir.

F20 does not hold water for at least 20 weeks during the CRLF breeding season and therefore does not represent potential CRLF breeding habitat.

Site F22



F22

F22 is a 145-m-long section of an unnamed perennial tributary to the Big Creek arm of Don Pedro Reservoir, located 10 m north of Don Pedro Reservoir within the FERC Project Boundary. F22 is 9.1 km from the nearest known CRLF occurrence. NWI data for the area depict a riverine, intermittent, streambed, seasonally flooded (R4SBC) wetland feature in the area of the site.

The site was assessed on April 19, 2012. F22 is a perennial stream with an associated seasonal pond that is not located near any other sites. The bank full width

of the stream was 0.1 m with a depth of 1 meter. The stream gradient was 2 - 4 percent. Pools measuring up to 2 m x 5 m and less than 0.1 m deep were present in the stream. Non-pool habitat consisted of step pool, cascade pool, and low riffle. The substrate was made up of organic matter and soil with bedrock outcroppings. Stream banks varied from low gradient to steeper areas of vegetated soil with some bedrock outcroppings. The seasonal pool covered an area of 20 m^2 and had a maximum depth of 0.3 m. The banks of the pond were steeply sloped gravel and bedrock with some low gradient areas that may connect to other ponds that were dry at the time of the survey. Emergent vegetation at both the stream and the pond was a mix of grasses and forbs, with no overhanging vegetation. Vegetation in the margin was mostly grasses. Upland habitat was made up of a gently sloping meadow with oak above the high water line of the reservoir. American bullfrogs and small fish were observed at the site during the survey.

F22 holds water for at least 20 weeks during the CRLF breeding season and therefore represents potential CRLF breeding habitat. However, lack of overhanging vegetation and the presence of American bullfrog and fish diminish the potential suitability of this site.

Site F23



F23 is a 48-m-long section of an ephemeral tributary to the upper bay of Don Pedro Reservoir, below the high water line of Don Pedro Reservoir within the FERC Project Boundary. F23 is 9.6 km from the nearest known CRLF occurrence. NWI data for the area depict a riverine, intermittent, streambed, temporarily flooded (R4SBA) wetland feature in the area of the site.

The site was assessed on June 19, 2012. F23 is in the vicinity of seven other ephemeral tributaries to the upper bay of Don Pedro Reservoir. The bank full width was 7 - 10 m with a depth of 2 - 3 m. The stream

gradient was 4 percent. The stream was dry at the time of survey, but it was assumed that no pools would be present. Non-pool habitat was assumed to be riffle during flow conditions. The substrate was made up of soil and grasses that were present throughout the stream channel. Stream banks were gently sloping and vegetated, and become increasingly rocky towards the top of the slope. Emergent and margin vegetation consisted of grasses, with Manzanita and buckthorn in the upland and overhanging the stream channel in some areas. No fish or amphibians were observed; however, fish are known to be present in Don Pedro Reservoir.

F23 does not hold water for at least 20 weeks during the CRLF breeding season and therefore does not represent potential CRLF breeding habitat.



F24 is a 77-m-long section of an ephemeral tributary to the upper bay of Don Pedro Reservoir, below the high water line of Don Pedro Reservoir within the FERC Project Boundary. F24 is 9.1 km from the nearest known CRLF occurrence. NWI data for the area depict a riverine, intermittent, streambed, seasonally flooded (R4SBC) wetland feature in the area of the site.

The site was assessed on June 19, 2012. F24 is in east of the group of seven other ephemeral tributaries to the upper bay of Don Pedro Reservoir. The site is adjacent

to a large constructed gravel slope and beneath power lines. The bank full width was 3 m with a depth of 1.25 m. The stream gradient was 6 percent. The stream was dry at the time of survey, but it was assumed that pools up to 5m x 2m would be present during flow conditions. Non-pool habitat was assumed to be a mix of cascade and riffle. The substrate was made up of soil and gravel with bedrock in the upstream portion. Stream banks were steeply incised and made up of a combination of soil and gravel with bedrock upstream. Emergent and margin vegetation consisted of desiccated grasses and forbs, with no overhanging vegetation. Upland habitat was a mix of pine and oak with 60 percent canopy cover. No fish or amphibians were observed; however, fish are known to be present in Don Pedro Reservoir.

F24 does not hold water for at least 20 weeks during the CRLF breeding season and therefore does not represent potential CRLF breeding habitat.

Site F25



F25

F25 is a 54 -m-long section of an unnamed perennial tributary to Don Pedro Reservoir, located below the high water line of Don Pedro Reservoir and within the FERC Project Boundary in Wreck Bay. F25 is 11.7 km from the nearest known CRLF occurrence. NWI data for the area depict a riverine, intermittent, streambed, temporarily flooded (R4SBA) wetland feature in the area.

The site was assessed on June 19, 2012. The bank full width was estimated at 1.5 m. The stream depth at the

bank full width was determined to be 0.75 m. The stream gradient was 2 percent. Pools measuring up to 1 m x 3 m and 0.2 m deep were present in the stream. Non-pool habitat was a mix of riffle and run. The substrate consisted of soil, bedrock, gravel, and cobbles. The banks of the channel were made up of moderately sloping bedrock. Emergent and margin vegetation consisted of desiccated grasses and forbs with no overhanging vegetation. Submerged algae was abundant in the stream. Larval American bullfrogs and small fish were present. Surrounding upland habitat included mixed oak and pine woodland with 60 percent canopy cover.

F25 holds water for at least 20 weeks during the CRLF breeding season and therefore represents potential CRLF breeding habitat. However, lack of overhanging vegetation and the presence of American bullfrog and fish diminish the potential suitability of this site.

Site F26



F26

F26 is a 70 m-long section of an unnamed intermittent tributary to Don Pedro Reservoir, located perpendicular to Grizzly Road, partially below the high water line of Don Pedro Reservoir and within the FERC Project Boundary. F26 is 12.1 km from the nearest known CRLF occurrence. NWI data for the area depict a riverine, intermittent, streambed, temporarily flooded (R4SBA) wetland feature from the mouth at the reservoir upstream, including Site F26.

The site was assessed on February 7, 2012. F26 is not located near any other sites. The bank full width was estimated at 1.3 m with a maximum depth of 1 meter. The stream gradient was 30 percent. Pools measuring up to 0.75 m x 1.3 m and 0.3 m deep were present in the stream. Non-pool habitat was a mix of riffle and cascade. The substrate consisted of boulders and bedrock. The banks of the channel were steep, eroded, incised and

comprised of soil and boulders. Himalayan blackberry was the dominant vegetation at the site, with emergent moss and upland grasses present. Surrounding upland habitat included buckeye (*Aesculus californica*), toyon, oak, and foothill pine with 75 percent canopy cover. Another pool was present on the downstream side of the road, below the culvert, that measured approximately 0.9 m x 1.5 m with an average depth of 0.15 m and a bankfull width of 0.3 m. Substrate in the downstream pool consisted of organic matter and vegetation included algae in the water surrounded by upland annual grasses and forbs (*Astragalus* sp.). No fish or amphibians were observed; however, fish are known to be present in Don Pedro Reservoir.

F26 does not hold water for at least 20 weeks during the CRLF breeding season and therefore does not represent potential CRLF breeding habitat.

Site F27



F27

F27 is a 278-m-long section of Deer Creek, a perennial tributary to Don Pedro Reservoir, located south of Wards Ferry Road, partially below the high water line of Don Pedro Reservoir, and within the FERC Project Boundary. F27 is 17 km from the nearest known CRLF occurrence. NWI data for the area depict a riverine, intermittent, streambed, seasonally flooded (R4SBC) in the area of the site.

The site was assessed on February 9, 2012. F27 is not located near any other sites. The bank full width was

estimated at 3.5 m with a maximum depth of 0.5 m. The stream gradient was 4 percent. Pools were present, with a maximum size of 5 m x 1 m and an approximate depth of 1 meter. Non-pool habitat was a mix of riffle, step-pool, and cascade. The substrate consisted of boulders and bedrock. The banks of the channel consisted of steep confined bedrock and moderately sloping soil. Ferns and moss on slabs were the dominant emergent vegetation, with willow and buckeye overhanging the stream. Margin vegetation was made up of timothy grass (*Phleum pretense*), forbs, willows, and buckeye. Surrounding upland habitat included mixed pine, toyon, and chaparral. At least ten American bullfrog tadpoles were present in the stream, downstream of the site.

F27 holds water for at least 20 weeks during the CRLF breeding season and therefore represents potential CRLF breeding habitat. However, the potential presence of American bullfrogs diminishes the potential suitability of this site.

Site F29



F29

F29 is a 167-m-long section of an unnamed seasonal tributary to Don Pedro Reservoir that crosses SR 49, located below the high water line of Don Pedro Reservoir and within the FERC Project Boundary. F29 is 12.6 km from the nearest known CRLF occurrence. NWI data for the area depict a riverine, intermittent, streambed, temporarily flooded (R4SBA) wetland feature in the area.

The site was assessed on June 18, 2012. F25 is located northwest of sites F51 and F52 on SR 49. The bank full

width was estimated at 2 m. The bank full width was estimated at 2 m with a maximum depth of 0.75 m. The stream gradient was 5 percent. The stream was dry at the time of survey, but it was assumed that pools measuring up to 1 m x 1 m during flow conditions. Non-pool habitat was assumed to be a mix of riffle and cascade. The substrate consisted of boulders and cobbles. The banks of the channel had a slightly steep grade with no abrupt drop off or incision and were vegetated to the stream. Emergent and margin vegetation consisted of grasses and forbs with willows overhanging. No amphibian or fish species were observed during the survey. Surrounding upland habitat included mixed oak and pine woodland with 90 percent canopy cover upstream, but no cover downstream.

F29 does not hold water for at least 20 weeks during the CRLF breeding season and therefore does not represent potential CRLF breeding habitat.



F30 is a 321-m-long section of a perennial tributary to Don Pedro Reservoir, Kanaka Creek, located south of Jacksonville Road, partially below the high water line of Don Pedro Reservoir, and within the FERC Project Boundary. F30 is 14.3 km from the nearest known CRLF occurrence. NWI data for the area depict a riverine, intermittent, streambed, seasonally flooded (R4SBC) wetland feature from the mouth at the reservoir upstream including Site F30.

The site was assessed on February 9, 2012. F30 is located northwest of Site F32. The bank full width was estimated at 2 m with a maximum depth of 0.6 m. The stream gradient was 4 percent. Pools with a maximum size of 5 m x 3 m and 0.5 m deep were present in the stream. Non-pool habitat was a mix of cascade, step pool, and riffle. The substrate consisted of boulders, bedrock, cobble, and gravel. The banks of the channel were steep, rocky, and confined above the high water line. Below the high water line the banks were made up of channelized vegetated soil with a moderate slope. Dehisced forbs were the dominant vegetation and were overhanging the stream in combination with buckthorn and willow. Emergent vegetation was made up of water purslane (*Ludwigia* sp.), beggar-tick (*Bidens* sp.), and algae. Margin vegetation consisted of annual and perennial grasses and asters (*Asteracea*) and vetch (*Vicia* sp). Surrounding upland habitat included foothill pine and interior live oak. No fish or amphibians were observed; however, fish are known to be present in Don Pedro Reservoir.

F30 holds water for at least 20 weeks during the CRLF breeding season and therefore represents potential CRLF breeding habitat.

Site F31



F31

F31 is a 238-m-long section of an unnamed seasonal tributary to Don Pedro Reservoir, located northeast of US Hwy 120/49 near Moccasin Point Marina, partially below the high water line of Don Pedro Reservoir, and within the FERC Project Boundary. F31 is 11.7 km from the nearest known CRLF occurrence. NWI data for the area depict a riverine intermittent, streambed, temporarily flooded (R4SBA) wetland feature upstream of the where the stream joins the river, including Site F31.

The site was assessed on February 7, 2012. F31 is located west of F73 and across the Moccasin Creek arm of the reservoir from F26. The bank full width was estimated at 0.6 m with a maximum depth of 0.6m at bank full. The stream gradient was approximately 5 percent. There was a 0.5 m x 1 m pool present at the culvert where the stream crosses the Moccasin Point Marina access road, with a maximum depth of 0.6 m. Non-pool habitat

consisted of riffle, but the stream was mostly dry at the time of the survey with some seepage at the culvert. Substrate was made up of angular cobble. The stream was channelized with incised banks, especially upstream of the culvert. Downstream of the culvert, no channel was visible at the time of the survey. No emergent vegetation was present, but the margins were vegetated with blackberry and upland grasses. Blackberry was overhanging the stream. Surrounding upland habitat included foothill pine, oak, and Manzanita (*Arctostaphylos* sp.). No fish or amphibians were observed; however, fish are known to be present in Don Pedro Reservoir.

F31 does not hold water for at least 20 weeks during the CRLF breeding season and therefore does not represent potential CRLF breeding habitat.

Site F32



F32

F32 is a 114-m-long section of an unnamed perennial tributary to Don Pedro Reservoir, located southwest of Jacksonville Road, 5 m north of Don Pedro Reservoir, and within the FERC Project Boundary. F32 is 13.7 km from the nearest known CRLF occurrence. NWI data for the area depict a riverine, intermittent, streambed, temporarily flooded (R4SBA) wetland feature upstream of the where the stream joins the river, including Site F32.

The site was assessed on February 9, 2012. F32 is located southeast of F30. The bank full width was estimated at 1.5 m with a maximum depth of 0.3m. The stream gradient was approximately 5 percent. Pools measuring up to 1.5m x 1.5 m and 0.1 m deep were present at the site, and the non-pool habitat was a combination of cascade, steppool, and riffle. Substrate consisted of boulder, cobble, and silt. Banks were very steep and vegetated with blackberries above the high water line, and moderately sloped soil with forbs below. Soil was eroded along the bank due to water elevation changes in the reservoir. Emergent vegetation was made up of sparse grass with live oak (*Quercus virginiana*), buckeye, and blackberry overhanging the stream. Dominant vegetation species were California poppy (*Eschscholzia californica*) and yarrow (*Achillea millefolium*). Surrounding upland habitat included mixed toyon, interior oak, and chapparal. No fish or amphibians were observed; however, fish are known to be present in Don Pedro Reservoir.

F27 holds water for at least 20 weeks during the CRLF breeding season and therefore represents potential CRLF breeding habitat. However, the presence of fish diminishes the potential suitability of this site.



F33 is an 88-m-long section of an unnamed seasonal tributary to Don Pedro Reservoir, located south of Grizzly Road, partially below the high water line of Don Pedro Reservoir, and within the FERC Project Boundary. F33 is 11 km from the nearest known CRLF occurrence. NWI data for the area depict a riverine, intermittent, streambed, temporarily flooded (R4SBA) wetland feature upstream of the where the stream joins the river, including Site F33.

The site was assessed on February 7, 2012. F33 is located north and across the Moccasin Creek arm of the reservoir from F34. The bank full width was estimated at 3.5 m with a maximum depth of 1 meter. The stream gradient was approximately 5 percent. Pools measuring up to 1.5 m x 2 m and 1 m deep were present in the stream. Non-pool habitat was riffle, but the stream was dry at the time of the survey. Substrate consisted of boulder, cobble, and soil. Banks were gently sloping with eroding soil and cobble and gravel below the high water line. A few pieces of large woody debris were present at the site. Upland grasses made up the emergent vegetation with cow weed (*Heracleum maximum*) overhanging and in the margin. Surrounding upland habitat included foothill pine, oak, and Manzanita with between 0 and 20 percent canopy cover. No fish or amphibians were observed; however, fish are known to be present in Don Pedro Reservoir.

F33 does not hold water for at least 20 weeks during the CRLF breeding season and therefore does not represent potential CRLF breeding habitat.

Site F34



F34

F34 is a 353-m-long section of an unnamed seasonal tributary to Don Pedro Reservoir, located south of Moccasin Creed D Road, partially below the high water line of Don Pedro Reservoir, and within the FERC Project Boundary. F34 is 10.7 km from the nearest known CRLF occurrence. NWI data for the area depict a riverine, intermittent, streambed, temporarily flooded (R4SBA) wetland feature from the mouth at the reservoir upstream including Site F34.

The site was assessed on February 7, 2012. F34 is located south and across the Moccasin Creek arm of the reservoir from F33. The bank full width was estimated at 3.5 m with a maximum depth of 1.3 m. The stream gradient was approximately 4 percent. Pools measuring up to 1.5 m x 3 m and 1.3 m deep were present at the site. Non-pool habitat was a combination of runs and riffles, but the stream was dry at the time of the survey. The stream appeared to flow quickly during periods of high flow, with possible scouring flows due to the spillway. Substrate mainly consisted of cobble, but boulders, gravel and large woody debris were also present. Banks were sloping and made up of incised soil. The dominant bank and margin vegetation was a mix of upland grasses and willow, with emergent upland aster present and willows overhanging the stream. Surrounding upland habitat included a mix of foothill pine and oak woodland with willow along the banks of the stream. No fish or amphibians were observed; however, fish are known to be present in Don Pedro Reservoir.

F34 does not hold water for at least 20 weeks during the CRLF breeding season and therefore does not represent potential CRLF breeding habitat.

Site F35



F35 is a 173-m-long section of Woods Creek, located below the high water line of Don Pedro Reservoir within the FERC Project Boundary. F35 is 13.6 km from the nearest known CRLF occurrence. NWI data for the area depict a lacustrine, littoral, unconsolidated shore, seasonally flooded, diked/impounded (L2USCh) wetland feature in the area of the site.

The site was assessed on April 18, 2012. F35 is a perennial tributary to Don Pedro Reservoir with areas of large ponding that is not located near any other sites.

The bank full width of the stream was 20 m with a depth of greater than 2 m. The stream gradient was 0 to 2 percent. Pools measuring up to 20 m x 10 m and less than 0.75 m deep were present in the stream. Non-pool habitat consisted of run and riffle. The substrate was made up of bedrock, round and subangular cobbles, and large gravel. The stream bank was low gradient soil sloping to a steeper hillside. Emergent vegetation was dominated by grasses, but also included sedges and cattail (*Typha* sp.), with dispersed willow overhanging the stream and grasses and rushes in the margin. Submerged vegetation included pondweed and algae. Upland habitat was a mix of pine and oak scrub-shrub with chamise (*Adenostoma fasciculatum*). American bullfrogs and small fish were observed at the site during the survey. Shade and overhead cover of the stream were extremely limited. An adult American bullfrog was observed near the ponded section of Woods Creek during the survey.

F35 holds water for at least 20 weeks during the CRLF breeding season and therefore represents potential CRLF breeding habitat. However, the presence of fish and American bullfrogs diminishes the potential suitability of this site.



F36

F36 is a 78-m-long section of a seasonal unnamed tributary to Don Pedro Reservoir, located below the high water line of Don Pedro Reservoir within the FERC Project Boundary. F36 is 1.9 km from the nearest known CRLF occurrence. NWI data for the area depict a lacustrine, limnetic, unconsolidated bottom, permanently flooded, diked/impounded (L1UBHh) wetland feature in the area of the site.

The site was assessed on April 19, 2012. F36 is a small seasonal stream with areas of rock and debris jam creating cascades and pools. The bank full width of

the stream was 2 m with a depth of 0.25 m. The stream gradient was 2 to 4 percent. Pools measuring up to 2 m x 4 m and less than 0.75 m deep were present in the stream. Non-pool habitat consisted of run, riffle, and cascade. The substrate was made up of bedrock, boulder, gravel, and sand. The stream bank varied from moderately sloped vegetated soil with some areas undercut by the stream to steep bedrock outcroppings. Emergent and margin vegetation was dominated by forbs, but also included grasses and monkey flower (*Mimulus* sp.). No vegetation was overhanging the stream. Upland habitat was dominated by chamise (90 percent canopy cover) with some scattered oak and clusters of foothill pine (20 percent canopy cover). No fish or amphibians were observed; however, fish are known to be present in Don Pedro Reservoir.

F36 holds water for at least 20 weeks during the CRLF breeding season and therefore represents potential CRLF breeding habitat. However, lack of overhanging vegetation diminishes the potential suitability of this site.

Site F38



F38

F38 is a 43-m-long section of an ephemeral tributary to the upper bay of Don Pedro Reservoir, below the high water line of Don Pedro Reservoir within the FERC Project Boundary. F38 is 10.1 km from the nearest known CRLF occurrence. NWI data for the area depict a riverine, intermittent, streambed, temporarily flooded (R4SBA) wetland feature in the area of the site.

The site was assessed on June 19, 2012. F38 is in the vicinity of seven other ephemeral tributaries to the upper bay of Don Pedro Reservoir. The stream flowed

from parallel culverts that cross a BLM road over rock face with no defined channel. The stream was dry at the time of survey, but it was assumed that two pools would be present during flow conditions. Non-pool habitat was assumed to be cascade. The substrate was made up of soil and grasses that were present throughout the stream channel. The bank consisted of cobbles on the bedrock outside of the rock face. Emergent and margin vegetation consisted of desiccated grasses, with buckthorn and other scrub/shrubs in the upland and overhanging the stream channel

in some areas. A few scattered oak and pine were also present in the upland. No fish or amphibians were observed; however, fish are known to be present in Don Pedro Reservoir.

F38 does not hold water for at least 20 weeks during the CRLF breeding season and therefore does not represent potential CRLF breeding habitat.

Site F39



F39

F39 is a 24-m-long section of a seasonal unnamed tributary to Don Pedro Reservoir's 49er Bay, 185 m northwest of Don Pedro Reservoir within the FERC Project Boundary. F39 is 6.4 km from the nearest known CRLF occurrence. NWI data for the area depict a riverine, intermittent, streambed, temporarily flooded (R4SBA) wetland feature in the area of the site.

The site was assessed on April 19, 2012. F39 is a seasonal stream in a depression located within a hilly landscape. Although the stream was mostly dry at the

time of the survey, the bank full width was estimated to be 0.25 m with a depth of 0.1 m. The stream gradient was 1 percent. No pools were present in the stream, and habitat consisted of low-gradient run. The substrate was made up of soil and organic matter. Stream banks were low gradient, vegetated soil. Emergent vegetation was a mix of forbs and grasses with no overhanging vegetation. Upland habitat was oak savannah with approximately 40 percent canopy cover. Residential homes and associated structures were located nearby the site. No amphibians or fish were observed during the survey.

F39 does not hold water for at least 20 weeks during the CRLF breeding season and therefore does not represent potential CRLF breeding habitat.

Site F40



F40 is a palustrine freshwater pond, located south of US Hwy 132, below the high water line of Don Pedro Reservoir and within the FERC Project Boundary. F40 is 4.4 km from the nearest known CRLF occurrence. NWI data for the area depict a palustrine, unconsolidated shore, seasonally flooded, diked/impounded (PUSCh) wetland feature in the area of the site.

The site was assessed on February 8, 2012. F40 is a pond located above a culvert within a gently sloping

drainage. The site covers approximately $14,300 \text{ m}^2$; the maximum observed water depth was greater than 2 m; the bank full depth was greater than 2 m. The pond was dry at the time of assessment. Substrate consisted of soil, silt, bedrock, and boulders. Emergent vegetation consisted of sparse grass and forbs, the dominant vegetation in the area. No vegetation was

overhanging the pond. Sierran treefrog was heard calling but was not observed. Upland habitat was made up of blue oak pastureland.

Hydrological conditions at F40 vary greatly from year to year depending on reservoir operations. In most years F40 holds water for at least 20 weeks during the CRLF breeding season and may represent potentially suitable CRLF. However, lack of overhanging vegetation diminishes the potential suitability of this site.

Site F43



F43

F43 is a palustrine, freshwater pond created by a natural impoundment within West Big Fork Creek, located below the high water line of Don Pedro Reservoir and within the FERC Project Boundary. F43 is 9.6 km from the nearest known CRLF occurrence. NWI data for the area depict a palustrine, unconsolidated bottom, permanently flooded, diked/impounded (PUBHh) wetland feature in the area of the site.

The site was assessed on April 17, 2012. F43 is adjacent to site F21. The site covers approximately 9,900 m^2 ; the maximum observed water depth was greater than 2 m; the bank full depth was greater than 2 m. Substrate consisted mostly of organic matter and silt with some small gravel. The banks of the pond were mostly vegetated and varied from low grade to somewhat steep with angular bedrock outcroppings. Emergent vegetation was dominated by grasses, but included a mix of grasses and forbs with willows overhanging. The margins were vegetated with grasses and forbs. An abundance of large woody debris was present at the time of survey. Upland habitat consisted of rolling hills dominated by oak with a few large willows near the pond. An unidentified frog species jumped into the pond while vocalizing and a western pond turtle was seen basking on the opposite side of the pond.

F43 holds water for at least 20 weeks during the CRLF breeding season and therefore represents potential CRLF breeding habitat.

Site F45



F45 is a perennial, freshwater pond, located southwest of Bond Flat Road, 790 m south of Don Pedro Reservoir, and within the FERC Project Boundary. F45 is 7.3 km from the nearest known CRLF occurrence. NWI data for the area depict a palustrine, unconsolidated bottom, permanently flooded, diked/impounded (PUBHh) wetland feature in the area of the site.

F45 The site was assessed on February 8, 2012. F45 is a constructed sewage treatment pond located in an open herbaceous area, adjacent to F49. The site covers approximately 6,100 m²; the maximum observed water depth was greater than 2 m; the

bank full depth was estimated to be 5 m. Substrate consisted of soil that was vegetated with grasses. No emergent or overhanging vegetation was present, but some cattails were present in the margin. Upland habitat was made up of blue oak pastureland, with no canopy cover over the pond. Killdeer (*Charadrius vociferous*) and buffleheads (*Bucephala albeola*) were observed at the site.

F45 holds water for at least 20 weeks during the CRLF breeding season and therefore represents potential CRLF breeding habitat. However, lack of overhanging and emergent or aquatic vegetation diminishes the potential suitability of this site.

Site F46



F46

F46 is a perennial, freshwater pond, located southwest of Bonds Flat Road, 175 m west of Don Pedro Reservoir, and within the FERC Project Boundary. F45 is 8.9 km from the nearest known CRLF occurrence. NWI data for the area depict a palustrine, unconsolidated bottom, semipermanently flooded, excavated (PUBFx) wetland feature in the area of the site.

The site was assessed on February 8, 2012. F46 is a constructed sewage treatment pond located in an open

herbaceous area, south of site F50. The site covers approximately $6,210 \text{ m}^2$; the maximum observed water depth was greater than 2 m; the bank full depth was greater than 2 m. The pond was lined with concrete, with soil, cobble, and gravel substrate. No emergent or overhanging vegetation was present, but some grass clumps were present in the margin. Upland habitat was made up of blue oak (*Quercus douglasii*) pastureland, with no canopy cover over the pond. A male and a female bufflehead were observed at the site.

F46 holds water for at least 20 weeks during the CRLF breeding season and therefore represents potential CRLF breeding habitat. However, lack of overhanging and emergent or aquatic vegetation diminishes the potential suitability of this site.

Site F47



F47

F47 is a perennial, freshwater pond, located north of Bonds Flat Road, 305 m south of Don Pedro Reservoir, and within the FERC Project Boundary. F46 is 6.7 km from the nearest known CRLF occurrence. NWI data for the area depict a palustrine, unconsolidated bottom, permanently flooded, diked/impounded (PUBHh) wetland feature in the area of the site.

The site was assessed on February 8, 2012. F47 is a public swimming pool lined with concrete, and was not located near any other sites. The site covers

approximately 8,726 m²; the maximum observed water depth was greater than 2 m; the bank full

depth was greater than 3 m. The pool was lined with concrete, with sand substrate. No vegetation was present in or around the pool. Upland habitat was made up of blue oak pastureland.

F47 holds water for at least 20 weeks during the CRLF breeding season and therefore represents potential CRLF breeding habitat. However, lack of overhanging and emergent or aquatic vegetation diminishes the potential suitability of this site.

Site F48



F48 is a perennial, freshwater pond created by an impoundment in Lucas Gulch, located below the high water line of Don Pedro Reservoir, within the FERC Project Boundary. F48 is 4.5 km from the nearest known CRLF occurrence. NWI data for the area depict a palustrine, unconsolidated bottom, permanently flooded, diked/impounded (PUBHh) wetland feature in the area of the site.

The site was assessed on April 19, 2012. F48 is separated from Don Pedro Reservoir by an impoundment and is not located near any other sites.

The site covers approximately 1,585 m²; the maximum observed water depth was greater than 2 m; the bank full depth was greater than 2 m. Substrate consisted of soil with angular cobbles and gravel. The banks of the pond were moderately sloped with somewhat dense upland oaks on hilltops. Emergent vegetation was a mix of grasses, forbs, and monkey flower. No overhanging vegetation was present. Upland habitat consisted of oak savannah with approximately 90 percent canopy cover. Many western toad tadpoles were observed in the upstream shallow end of the pond.

F48 holds water for at least 20 weeks during the CRLF breeding season and therefore represents potential CRLF breeding habitat. However, lack of overhanging vegetation diminishes the potential suitability of this site.

Site F49



F49 is a perennial, freshwater pond, located southwest of Bond Flat Road, 710 m south of Don Pedro Reservoir, and within the FERC Project Boundary. F49 is 7.4 km from the nearest known CRLF occurrence. NWI data for the area depict a palustrine, unconsolidated bottom, permanently flooded, diked/impounded (PUBHh) wetland feature in the area of the site.

The site was assessed on February 8, 2012. F49 is a constructed sewage treatment pond located in an open

herbaceous area, adjacent to site F45. The site covers approximately 500 m^2 ; the maximum observed water depth was greater than 2 m; the bank full depth was estimated to be greater than

2.5 m. The pond was lined with concrete, with no other substrate present. No emergent or overhanging vegetation was present, but cudweed (*Gnaphalium* sp.) was present in the margin. Upland habitat was made up of blue oak rangeland and dirt access roads, with no canopy cover over the site. A small unidentified frog jumped into the water upon approach by the surveyors and bufflehead and mallard (*Anas platyrhynchos*) were present.

F49 holds water for at least 20 weeks during the CRLF breeding season and therefore represents potential CRLF breeding habitat. However, lack of overhanging and emergent or aquatic vegetation diminishes the potential suitability of this site.

Site F50



F50 is a perennial, freshwater pond, located west of Bond Flat Road, 200 m west of Don Pedro Reservoir, and within the FERC Project Boundary. F50 is 8.9 km from the nearest known CRLF occurrence. NWI data for the area depict a palustrine, unconsolidated bottom, semipermanently flooded, excavated (PUBFx) wetland feature in the area of the site.

F50

The site was assessed on February 8, 2012. F50 is a constructed sewage treatment pond located in an open

herbaceous area, adjacent to site F46. The site covers approximately 2,875 m²; the maximum observed water depth was greater than 2 m; the bank full depth was greater than 2 m. The pond was lined with concrete, with no other substrate present. No emergent or overhanging vegetation was present, but cudweed was present in the margin and was the dominant plant. Upland habitat was made up of blue oak pastureland, with no canopy cover over the site.

F50 holds water for at least 20 weeks during the CRLF breeding season and therefore represents potential CRLF breeding habitat. However, lack of overhanging and emergent or aquatic vegetation diminishes the potential suitability of this site.

Site F51



F51 is a perennial, freshwater pond, located north of SR49, 195 m southeast of Don Pedro Reservoir, and within the FERC Project Boundary. F51 is 12.1 km from the nearest known CRLF occurrence. NWI data for the area depict a palustrine, unconsolidated bottom, permanently flooded, diked/impounded (PUBHh wetland feature in the area of the site.

The site was assessed on February 7, 2012. F51 is a constructed sewage treatment pond, adjacent to site F52. The site covers approximately 2, 760 m^2 ; the

maximum observed water depth was greater than 2 m; the bank full depth was estimated to be greater than 2 m. The substrate was made up of soil. Vegetation consisted of bulrush (*scirpus* sp.) upstream of the site and grasses in the upland area. Emergent vegetation was limited, but

some algae was observed at the inflow. Upland habitat was made up of oak woodland, foothill pine, and Manzanita.

F51 holds water for at least 20 weeks during the CRLF breeding season and therefore represents potential CRLF breeding habitat. However, lack of overhanging vegetation and limited emergent or aquatic vegetation diminishes the potential suitability of this site.

Site F52



F52

F52 is a perennial, freshwater pond, located north of SR49, 190 m southeast of Don Pedro Reservoir, and within the FERC Project Boundary. F52 is 12.2 km from the nearest known CRLF occurrence. NWI data for the area depict a palustrine, unconsolidated bottom, permanently flooded, diked/impounded (PUBHh) wetland feature in the area of the site.

The site was assessed on February 7, 2012. F52 is a disturbed sewage treatment pond with a pump and machinery present in the pool, located adjacent to site

F51. The site covers approximately 95 m²; the maximum observed water depth was greater than 2 m; the bank full depth was estimated to be greater than 2 m. The pond was lined with concrete, with no other substrate present. The vegetation was sparse with a few disturbed forbs near the shore. Upland habitat was made up of a gravel access road immediately surrounding the pond with oak and foothill pine woodland beyond the gravel. Sierran treefrog were heard calling during the survey.

F52 holds water for at least 20 weeks during the CRLF breeding season and therefore represents potential CRLF breeding habitat. However, lack of overhanging vegetation and limited emergent or aquatic vegetation diminishes the potential suitability of this site.

Site F53



F53

F53 is a 62-m-long section of a seasonal unnamed tributary to Don Pedro Reservoir, 8 m northwest of Don Pedro Reservoir and within the FERC Project Boundary. F53 is within 1.4 km from the nearest known CRLF occurrence. NWI data for the area depict a palustrine, scrub-shrub temporarily flooded (PSSA) wetland feature in the area of the site

The site was assessed on April 19, 2012. F53 is a seasonal stream surrounded by steep bedrock cliffs with vegetated slopes. The bank full width of the stream was 4 m with a depth of 0.25 m. The stream gradient was 10

percent. Pools, measuring up to 4 m x 6 m and 2 m deep were present in the stream. Non-pool habitat consisted of riffle, run, and cascade. The substrate was made up of gravel, subangular cobble, organic matter, and bedrock. Stream banks were mostly steep bedrock with some lower gradient areas of vegetated soil. Emergent vegetation was dominated by forbs, but also contained some grasses. Overhanging vegetation consisted of oak, beggar-tick, and foothill pine that were growing on the steep slopes above the stream. Upland habitat was mixed oak and foothill pine with approximately 30 percent canopy cover and some tickbush shrub with approximately 10 percent canopy cover.

It is unknown if F53 holds water for at least 20 weeks during the CRLF breeding season and therefore may represent potential CRLF breeding habitat.

Site F54



F54

F54 is a 335-m-long section of Sixbit Gulch, a perennial tributary to Don Pedro Reservoir, located mostly below the high water line of Don Pedro Reservoir within the FERC Project Boundary. F54 is 14 km from the nearest known CRLF occurrence. NWI data for the area depict a palustrine, scrub-shrub temporarily flooded (PSSA) wetland feature in the area of the site.

The site was assessed on June 21, 2012, F54 is a perennial stream surrounded by steep bedrock cliffs

with vegetated slopes crossed by a BLM road. The bank full width of the stream was 4 m with a depth of 1 m. The stream gradient was 1 percent. Pools, measuring up to 2 m x 3 m and 0.5 m deep were present in the stream. Non-pool habitat consisted of riffle. The substrate was made up of bedrock, cobbles, and concrete at the BLM road crossing. Stream banks were moderately sloped and lined with bedrock. Emergent vegetation was a mix of sedges and forbs with willows and Western spicebush (Calycanthus occidentalis) overhanging. The site was mostly enclosed in a dense willow thicket that completely covered the stream. Upland habitat was made up of foothill pine and scrub-shrub, with 20 percent canopy cover. American bullfrogs and small fish were present.

F54 holds water for at least 20 weeks during the CRLF breeding season and therefore represents potential CRLF breeding habitat.



F60

F60 is a seasonal, freshwater pond, located below the high water line of Don Pedro Reservoir, within the FERC Project Boundary. F60 is 13.9 km from the nearest known CRLF occurrence. NWI data for the area depict a palustrine, emergent, temporarily flooded, diked/impounded (PEMAh) wetland feature in the area of the site.

The site was assessed on April 18, 2012. F60 is a pond fed by a seasonal branch of a creek. The site covers approximately 650 m^2 ; the maximum observed water

depth was greater than 1 m; the bank full depth was greater than 2 m. Substrate consisted of soil, organic matter, and subangular cobble. The banks of the pond were flat but adjacent to a steep hillside. Emergent vegetation was made up of grasses, with cocklebur, grasses and forbs in the margin around the entire pond. Cockleburs were the dominant vegetation in the area and two smaller willows were overhanging the site. Submerged vegetation consisting of duckweed and algae was present in the upstream end of the pool. Upland habitat was a mix of Manzanita and chamise with some oak and foothill pine with approximately 20 percent canopy cover. Adult, juvenile, and many larval American bullfrog were observed during the survey.

F60 holds water for at least 20 weeks during the CRLF breeding season and therefore represents potential CRLF breeding habitat.

Site F61



F61

F61 is a 47-m-long section of an unnamed perennial tributary to Don Pedro Reservoir, located west of Marshes Flat Road, partially below the high water line of Don Pedro Reservoir, and within the FERC Project Boundary. F61 is 2.8 km from the nearest known CRLF occurrence and is not within the USFWS Critical Habitat unit. NWI data for the area depict a palustrine, emergent, saturated (PEMB) wetland feature in the area of the site.

The site was assessed on February 7, 2012. F53 is west

of N62 and includes a perennial stream and in-stream pool. The bank full width was estimated at 2 m with a maximum depth of 0.6 m. The stream gradient was 4 percent. One large pool was present below the high water line of Don Pedro Reservoir, measuring 20 m x 8 m with an approximate depth of 0.5 m. Non-pool habitat was a mix of riffle and run. The substrate consisted of boulders, silt, and sub-angular cobble. The banks of the channel varied between rocky and steep and sloping soil. Grass was the dominant emergent and margin vegetation. Surrounding upland habitat included oak woodland with approximately 5 percent canopy cover.

F61 holds water for at least 20 weeks during the CRLF breeding season and therefore represents potential CRLF breeding habitat. However, lack of overhanging vegetation diminishes the potential suitability of this site.

Sites F62, F63, and F64



F62, F63, and F64 are all upland areas located west of Marshes Flat Road, adjacent to Don Pedro Reservoir, and south of Hatch Creek. The sites were labeled as emergent wetlands on the NWI map and were therefore included in the assessment; however, no aquatic feature currently occurs at the mapped location. Upland grassy slopes occurred along the shoreline in this location.

Site F65



F65

F65 is an ephemeral, freshwater pond, located adjacent to Sunset Oaks Lane. F65 is 2.9 km from the nearest known CRLF occurrence. NWI data for the area depict a palustrine, emergent, saturated (PEMB) wetland feature in the area of the site.

The site was assessed on February 7, 2012. F65 is a pond formed in a roadside ditch. The site covered approximately 350 m^2 ; the pond was dry at the time of the survey; the bank full depth was greater than 0.75 m. Substrate consisted of soil and a few boulders on the

south end of the pond. Emergent vegetation was made up of grasses, with dehisced forbs and shrubs in the margin. No vegetation was overhanging the site. Upland habitat was grassland with some oak with approximately 20 percent canopy cover.

F65 does not hold water for at least 20 weeks during the CRLF breeding season and therefore does not represent potential CRLF breeding habitat.
Site F66



F66

F66 is a 35-m-long section of a seasonal unnamed tributary to Don Pedro Reservoir, located 120 m from Don Pedro Reservoir within the FERC Project Boundary. F66 is 7.3 km from the nearest known CRLF occurrence. NWI data for the area depict a palustrine, emergent, saturated (PEMB) wetland feature in the area of the site.

The site was assessed on April 19, 2012. F66 is a seasonal stream surrounded by steep bedrock cliffs with vegetated slopes south of F67. Although the stream was

mostly dry at the time of survey, the bank full width of the stream was observed to be 10 - 12 m with a depth of 1 - 2 m. The stream gradient was 2 to 4 percent. One large pool was present in the stream, measuring approximately 10 m x 5 m with a maximum depth of 1 m. Non-pool habitat consisted of riffle and run. The substrate was made up of subangular boulders and cobbles. Stream banks were vegetated to the stream with a steep gradient and extremely incised. Emergent vegetation was a mix of grasses, forbs, and bulrush, with submerged duckweed, and rushes in the margin, and oak overhanging the site. Upland habitat was made up of oak woodland with approximately 50 percent canopy cover. Juvenile American bullfrogs were present in the pool and a bobcat (*Lynx rufus*) was observed running as the survey team approached the site.

F66 does not hold water for at least 20 weeks during the CRLF breeding season and therefore does not represent potential CRLF breeding habitat.

Site F68



F68

F68 is a 34-m-long section of a seasonal unnamed tributary to Don Pedro Reservoir, located partially below the high water line of Don Pedro Reservoir within the FERC Project Boundary. F68 is 7.1 km from the nearest known CRLF occurrence. NWI data for the area depict a palustrine, emergent, saturated (PEMB) wetland feature in the area of the site.

The site was assessed on April 19, 2012. F68 flows over a valley created by bedrock outcropping within a vegetated hillside. The bank full width of the stream

was observed to be 5 m with a depth of 1 - 3 m. The stream gradient was 5 to 12 percent. Pools measuring up to 1 m x 3 m and 0.25 m deep were present in the stream. Non-pool habitat consisted of high gradient riffle. The substrate was made up of bedrock with some soil and gravel. Stream banks were moderately sloping with vegetated soil lining the bedrock. Emergent vegetation was a mix of sparse grass and forbs with thick willows in the stream and overhanging the site. Upland habitat was made up of oak savannah with 30 - 60 percent canopy cover. A large metal pipe was observed in the stream channel.

F68 does not hold water for at least 20 weeks during the CRLF breeding season and therefore does not represent potential CRLF breeding habitat.

Site F69



F69 is a 658-m-long section of an unnamed perennial tributary to Don Pedro Reservoir, located north of Bonds Flat Road, partially below the high water line of Don Pedro Reservoir, and within the FERC Project Boundary. F69 is 5.1 km from the nearest known CRLF occurrence. NWI data for the area depict a palustrine, emergent, temporarily flooded, diked/impounded (PEMAh) wetland feature in the area of the site.

The site was assessed on February 8, 2012. F69 is a ditch below the high water line of Don Pedro Reservoir with a maximum depth of 1.5 m. The stream gradient was 2 percent. One large pool was present below the high water line of the reservoir, measuring 0.3 m x 0.1 m with an approximate depth of 0.05 m. No non-pool habitat was present. The substrate consisted of soil with a few boulders, cobbles, and some large woody debris. The banks were steep and comprised of soil with small forbs and grasses. Upland grasses made up the emergent and margin vegetation with no plants overhanging the site. All vegetation was severely trampled by cattle.

F69 holds water for at least 20 weeks during the CRLF breeding season and therefore represents potential CRLF breeding habitat

Sites F70



F70

F70 is located south of Bonds Flat Road, 1,900 m south of Don Pedro Reservoir. The site was labeled as an emergent wetland on the NWI map and was therefore included in the assessment; however, no aquatic feature currently occurs at the mapped location. An upland grassy/gravel area occurred along the shoreline in this location.

Site F73



F73

F73 is a 43-m-long section of an unnamed intermittent tributary to Don Pedro Reservoir, located north of Moccasin Creek D Road, partially below the high water line of Don Pedro Reservoir, and within the FERC Project Boundary. F73 is 11.5 km from the nearest known CRLF occurrence. NWI data for the area do not show a wetland feature in the area of the site.

The site was assessed on February 7, 2012. F73 is not located near any other sites and flows from a culvert under an unnamed road to Don Pedro Reservoir. The bankfull width was 1 m with a maximum depth of 0.5 m. The stream gradient was 4 percent. Pools were present, with a maximum size of 1 m x 1m and an approximate depth of 0.5 m. An abundance of organic matter was present in the pools. Non pool habitat was made up of riffle. The substrate consisted angular cobbles and boulders. The banks were steep, incised, and mostly vegetated. No water was present upstream of the culvert at the time of the survey, but the area

downstream of the culvert had some flow due to seepage. Emergent vegetation was made up of curled dock (*Rumex crispus*), cleavers (*Galium* sp.), aster, grasses, and submerged rushes (*Juncus* sp.) and algae with oak and toyon overhanging the site. Willow and soaproot (*Chlorogalum* spp) were present in the margin. The adjacent upland habitat included oak and foothill pine with Manzanita.

F73 does not hold water for at least 20 weeks during the CRLF breeding season and therefore does not represent potential CRLF breeding habitat.

Site F75



F75

F75 is a 49-m-long section of a seasonal unnamed tributary to Don Pedro Reservoir, located 110 m northeast of Don Pedro Reservoir within the FERC Project Boundary. F75 is 6.7 km from the nearest known CRLF occurrence. NWI data for the area do not show a wetland feature at the site.

The site was assessed on April 19, 2012. F75 flows in a depression through a hilly, vegetated area. The bank full width of the stream was observed to be 4 m with a depth of 0.25 m. The stream gradient was 0 to1 percent. Pools measuring up to 4 m x 6 m and 0.5 m deep were

present in the stream. Non-pool habitat consisted of run and low gradient riffle. The substrate was made up of soil and organic matter with a few subangular cobbles. Stream banks varied from low to higher gradient, somewhat incised, and vegetated throughout the stream channel. Emergent vegetation was a mix of grasses, rushes, and forbs with no vegetation overhanging the site. Upland habitat was made up of oak savannah with 60 percent canopy cover. A juvenile

American bullfrog was observed in a pool upstream of the site. Fences were present at the site, but grazing was still occurring along the stream.

It is unknown if F75 holds water for at least 20 weeks during the CRLF breeding season and therefore may represent potential CRLF breeding habitat. However, lack of overhanging vegetation and the presence of American bullfrogs diminish the potential suitability of this site.

Site F77



F77

F77 is a series of perennial, freshwater ponds, located east of Bonds Flat Road, 110 m west of Don Pedro Reservoir, within the FERC Project Boundary. F77 is 8.7 km from the nearest known CRLF occurrence. NWI data for the area do not show a wetland feature in the area of the site.

The site was assessed on February 8, 2012. F77 is located east of site F78, within the spillway channel. The site covers 547 m² with ponds ranging from small (1 m x 0.5 m) to very large (30 m x 15 m) within the

scoured bedrock channel. Observed water depth ranged from 0.1 m at small ponds to greater than 2 m at large ponds; the bank full depth was estimated to be greater than 3 m. The substrate was made up of bedrock and boulders. Emergent vegetation consisted of cattail, monkeyflower, bulrush, and primrose (*Ludwigia* sp.) with no vegetation overhanging the site or in the margin. Upland habitat was made up of angular cobble with no canopy over the site. An unidentified frog, red-wing blackbirds (*Agelaius phoeniceus*), and waterfowl were observed at the site. American bullfrogs have been observed at the site in the past.

F77 holds water for at least 20 weeks during the CRLF breeding season and therefore represents potential CRLF breeding habitat. However, lack of overhanging vegetation and the presence of American bullfrogs diminish the potential suitability of this site.

Site F78



F78 is a perennial, freshwater pond, located west of Bonds Flat Road, 200 m west of Don Pedro Reservoir, within the FERC Project Boundary. F78 is 8.8 km from the nearest known CRLF occurrence. NWI data for the area do not show a wetland feature in the area of the site.

The site was assessed on February 8, 2012. F77 is located east of site F78, within the spillway channel. The site covers approximately 250 m^2 ; the maximum observed water depth was greater than 2 m; the bank

full depth was estimated to be 4 m. Emergent vegetation consisted of cattail, bulrush, primrose, and fern (*Azolla* sp.) with no vegetation overhanging the site. Some deciduous trees were present

in the margin. Upland habitat was made up of oak pastureland and the nearby highway. Small frogs, likely American bullfrogs, were present at the site along with various waterfowl.

F78 holds water for at least 20 weeks during the CRLF breeding season and therefore represents potential CRLF breeding habitat. However, the presence of American bullfrogs diminishes the potential suitability of this site.

Site F80



F80

F80 is a perennial, freshwater pond, located southwest of Bonds Flat Road, 480 m southwest of Don Pedro Reservoir, within the FERC Project Boundary. F80 is 9 km from the nearest known CRLF occurrence. NWI data for the area do not show a wetland feature in the area of the site.

The site was assessed on February 8, 2012. F80 is located south of site F79, connected to the Tuolumne River. The site covers approximately $6,500 \text{ m}^2$; the maximum observed water depth was greater than 2 m;

the bank full depth was greater than 4 m. Banks of the pond were vegetated and varied from steep to sloping. The substrate consisted entirely of bedrock. Emergent vegetation was made up of cattail and some sedges with sparse buckeye overhanging the site. Upland grasses and vetch were present in the margin. Dominant species at the site were cattail and upland grasses. Upland habitat was blue oak rangeland with no canopy cover at the site. Fish presence is highly likely in the pond due to the connection with the Tuolumne River, although no fish were observed at the time of the survey. Waterfowl and red wing blackbirds were observed during the survey.

F80 holds water for at least 20 weeks during the CRLF breeding season and therefore represents potential CRLF breeding habitat. However, the presence of American bullfrogs and the high potential of fish presence diminish the potential suitability of this site.

Site F81



F81 is a man-made, freshwater stock pond above a small dam, located southwest of Bonds Flat Road, 800 m southwest of Don Pedro Reservoir, within the FERC Project Boundary. F81 is 9.2 km from the nearest known CRLF occurrence. NWI data for the area do not show a wetland feature in the area of the site.

The site was assessed on February 8, 2012. F81 is located southwest of site F80, and is generally manually filled by the Tuolumne Irrigation District each year at the request of a local cattle rancher. The

site covers approximately $3,565 \text{ m}^2$; the maximum observed water depth was 2 m; the bank full depth was greater than 4 m. The substrate consisted of soil with a limited amount of bedrock. Emergent vegetation consisted of primrose and bulrush with sparse blue oak overhanging the

site. Grasses were the dominant vegetation at the site. Upland habitat was blue oak pastureland with approximately 20 percent canopy cover on the northeast side of the site.

It is unknown if F81 holds water for at least 20 weeks during the CRLF breeding season and therefore may represent potential CRLF breeding habitat.

Sites F82, F83, F85, F86, F87, and F88

F82, F83, F85, F86, F87, and F88 are all perennial pools within the spillway channel that are connected via a seasonal stream during high flow conditions. All of the sites were determined to be inaccessible for assessment due to unsafe conditions. The sites are located in a bedrock lined canyon, south of Bonds Flat Road, within the FERC Boundary. NWI data for the area do not show a wetland feature in the area of the sites.

F82 covers approximately $1,325 \text{ m}^2$, is 9 km from the nearest known CRLF occurrence. Emergent vegetation was present and willows were overhanging. Upland habitat was oak pastureland above a steep ravine and rock cliffs. F82 holds water for at least 20 weeks during the CRLF breeding season and therefore represents potential CRLF breeding habitat.

F83 covers approximately $1,800 \text{ m}^2$, is 9 km from the nearest known CRLF occurrence. Emergent vegetation was present and willows were overhanging. Upland habitat was oak pastureland above a steep ravine and rock cliffs. F83 holds water for at least 20 weeks during the CRLF breeding season and therefore represents potential CRLF breeding habitat.

F85 covers approximately $1,345 \text{ m}^2$, is 9 km from the nearest known CRLF occurrence. Emergent and aquatic vegetation was present and willows and shrubs were overhanging. Upland habitat was oak pastureland above a steep ravine and rock cliffs. F85 holds water for at least 20 weeks during the CRLF breeding season and therefore represents potential CRLF breeding habitat.

F86 covers approximately $3,250 \text{ m}^2$, is 9 km from the nearest known CRLF occurrence. Emergent vegetation was present and willows were overhanging. Upland habitat was oak pastureland above a steep ravine and rock cliffs. F86 holds water for at least 20 weeks during the CRLF breeding season and therefore represents potential CRLF breeding habitat.

F87 covers approximately $1,300 \text{ m}^2$, is 9 km from the nearest known CRLF occurrence. Emergent vegetation was present with oaks and willows overhanging. Upland habitat was oak pastureland above a steep ravine and rock cliffs. F86 holds water for at least 20 weeks during the CRLF breeding season and therefore represents potential CRLF breeding habitat.

F88 covers approximately $1,350 \text{ m}^2$, is 9 km from the nearest known CRLF occurrence. Emergent and aquatic vegetation were present with shrubs overhanging. Upland habitat was oak pastureland above a steep ravine and rock cliffs. F88 holds water for at least 20 weeks during the CRLF breeding season and therefore represents potential CRLF breeding habitat.

Site F84



F84 is a 357-m-long section of a Big Creek, a perennial tributary to Don Pedro Reservoir that crosses and is adjacent to La Grange Road, within the FERC Project Boundary. F84 is 7 km from the nearest known CRLF occurrence. NWI data for the area do not show a wetland feature in the area of the site.

The site was assessed on February 8, 2012. F84 is made up of a pool within a stream running under La Grange Road through a culvert. The maximum observed water depth was0.75 m; the bank full width was 3 m with a

depth of 2 m; the stream gradient was 0.5 percent. One large pool was present, measuring 8 m x 2 m and approximately 0.75 m deep. No non-pool habitat was present. The substrate consisted of cobbles, boulders, and a culvert. The banks were steep, eroded, and vegetated with grasses. Emergent vegetation included cattail, willow, and primrose with willow overhanging the site. Willow and grasses were present in the margin. The dominant vegetation at the site was willow. Upland habitat was blue oak pastureland with approximately 80 percent canopy cover from willow in water.

F84 holds water for at least 20 weeks during the CRLF breeding season and therefore represents potential CRLF breeding habitat. However, the presence of fish and American bullfrogs diminishes the potential suitability of this site.

Site F89



F89 is a perennial, freshwater pond, located within a spillway, 1,800 m south of Don Pedro Reservoir, within the FERC Project Boundary. F89 is 9 km from the nearest known CRLF occurrence. NWI data for the area do not show a wetland feature in the area of the site.

The site was assessed on February 8, 2012, but could not be accessed by foot and was assessed from 50 ft. away on the fill dam. F89 is located southeast of site F88 in a deeply incised canyon, and is dammed by fill on the south end. The site covers approximately 235 m^2 ; the maximum observed water depth was greater than 2 m; the bank full depth was greater than 3 m. The substrate consisted entirely of bedrock. No emergent or overhanging vegetation was present. Upland habitat was blue oak pastureland above a steep ravine and rock cliffs.

F89

F89 holds water for at least 20 weeks during the CRLF breeding season and therefore represents potential CRLF breeding habitat. However, lack of overhanging and emergent or aquatic vegetation diminishes the potential suitability of this site.

Site F90



F90 is a perennial, freshwater stock pond, located 1,200 m south of Don Pedro Reservoir, within the FERC Project Boundary. F90 is 8.6 km from the nearest known CRLF occurrence. NWI data for the area do not show a wetland feature in the area of the site.

The site was assessed on February 8, 2012. F90 is not located near any other sites. The site covered approximately 100 m² at the time of the survey, but is assumed to cover approximately 570 m² when full. The maximum observed water depth was 0.75 m and the

bank full depth was estimated to be 3 m. Substrate consisted of soil, cobble, and gravel. No emergent or overhanging vegetation were present at the site, but sparse clumps of grass occupied the margin. Upland habitat was made up of blue oak rangeland, cudweed, dried aster, and buckthorn with approximately 1 percent canopy cover on the west side of the site. A horsehair snake (*Nematamorpha* sp.) was observed at the site during the survey.

F90 holds water for at least 20 weeks during the CRLF breeding season and therefore represents potential CRLF breeding habitat. However, lack of overhanging and emergent or aquatic vegetation diminishes the potential suitability of this site.

Site F91



F91

F91 is a 117-m-long section of an unnamed seasonal tributary to Don Pedro Reservoir, located west of Moccasin Creek D Road, 235 m southeast of Don Pedro Reservoir within the FERC Project Boundary. F91 is 10.5 km from the nearest known CRLF occurrence. NWI data for the area do not show a wetland feature in the area of the site.

The site was assessed on February 7, 2012. F91 is southeast of site F34. The stream gradient was 0.5 percent. The stream was dry at the time of the survey, but no pools were present and non-pool habitat would have consisted of riffle. The bankfull width was estimated to be 0.3 m with a depth of 2 m during seasonal flows. The substrate was made up of soil and cobble. The banks were vegetated and incised. Emergent vegetation in the stream bank was dominated by upland grasses at the time of the survey. Vegetation in the margin consisted of upland grasses with cow weed and cockleburs (*Xanthium* sp.) overhanging the site.

Upland habitat was a mix of blue oak and foothill pine woodland with 20 percent canopy cover at the site.

F91 does not hold water for at least 20 weeks during the CRLF breeding season and therefore does not represent potential CRLF breeding habitat.

Site F96

F96 is a pool in a seasonal, freshwater tributary to Don Pedro Reservoir, west of Old Don Pedro Road, within the FERC Project Boundary. The site was determined to be inaccessible for assessment due to proximity to private property where the owner denied access. NWI data for the area do not show a wetland feature in the area of the site.

F96 covers approximately 110 m2, is 8.1 km from the nearest known CRLF occurrence. Emergent and aquatic vegetation were present with one oak tree overhanging. Upland habitat was mostly grassland with oak pastureland nearby. F96 does not hold water for 20 weeks during the CRLF breeding season and therefore does not represent potential CRLF breeding habitat.

Site F100



F100

F100 is a 167-m-long section of Hatch Creek, a perennial tributary to Don Pedro Reservoir that crosses Sunset Oaks Lane, 235 m southeast of Don Pedro Reservoir within the FERC Project Boundary. F100 is 3 km from the nearest known CRLF occurrence. NWI data for the area do not show a wetland feature in the area of the site.

The site was assessed on February 7, 2012. F100 is north of F65. The bank full width was 15 - 20 m with a depth of 1.1 m. The stream gradient was 2 percent.

Pools measuring up to 6 m x 15 m and 0.8 m deep were present at the site. The substrate was made up of subangular cobble and boulder. The banks consisted of gently sloping soil covered in burrows. Emergent vegetation consisted of grasses, with willows overhanging the site in the margin. Willows were the dominant species at the site. Upland habitat was oak woodland with chaparral. Trout, approximately 6 inches long, were observed at the time of the survey.

F100 holds water for at least 20 weeks during the CRLF breeding season and therefore represents potential CRLF breeding habitat. However, the presence of fish diminishes the potential suitability of this site.

1.2 Other Potentially Suitable Locations for CRLF within the Study Area

Table 1.2-1.	Summary of sites (aquatic habitat locations) assessed for potential California red-
	legged frog breeding habitat within the Don Pedro Project study area (excluding
	sites within Project Boundary). (264 sites)

Site Number ^{1,2,3}	Habitat Feature/Seasonality/ Location	Meets 20- Week Criterion	Notes ⁴	Photo Number
N3	Pond, forested shrub wetland	No	Emergent and aquatic vegetation present Shrub and some oak overhanging Large woody debris present	N/A
N4	Stream in emergent wetland, near SR 49	Yes	Emergent vegetation present No tree cover or overhanging vegetation	N/A
N10	Pond, perennial	Yes	Emergent vegetation present Oak overhanging	N/A
N11	Pond, perennial	Yes	Emergent and margin vegetation present Shrub overhanging	N/A
N18	Pond, seasonal, near Juniper Mine Road	No	Emergent vegetation present Oak overhanging No standing water in July	N/A
N24	Pond, perennial	Yes	Emergent and aquatic vegetation present No tree cover or overhanging vegetation	N/A
N27	Wetland, emergent	Yes	Emergent vegetation present No tree cover or overhanging vegetation Small pond present through year round	N/A
N29	Pond, perennial	Yes	Emergent vegetation present Some oak overhanging Bordered by dirt road on all sides	N/A
N32	Pond, perennial	Yes	Emergent and aquatic vegetation present No tree cover or overhanging vegetation	N/A
N34	Pond, perennial	Yes	Emergent vegetation present No tree cover or overhanging vegetation Densely vegetated throughout	N/A
N35	Pond, perennial	Yes	Emergent vegetation present No tree cover or overhanging vegetation	N/A
N36	Wetland, emergent, near Hidalgo Street and Banderilla Drive	No	Emergent vegetation present No tree cover or overhanging vegetation Passes through a school that is mostly impervious surface	N/A
N37	Wetland, emergent with pond, near Castillo Way	Yes	Emergent vegetation present Oak and shrub overhanging	N/A

Site Number ^{1,2,3}	Habitat Feature/Seasonality/ Location	Meets 20- Week Criterion	Notes ⁴	Photo Number
			Perennial pond present near El Prado Road Wetland follows small stream that parallels Castillo Way	
N39	Wetland, emergent	No	Emergent vegetation present Oak and shrub overhanging	N/A
N40	Pond, perennial, near Marshes Flat Road	Yes	Emergent vegetation present Oak and shrub overhanging Connected to N41 and reservoir by small stream	N/A
N41	Pond, perennial, near Marshes Flat Road	Yes	Emergent and aquatic vegetation present Oak and shrub overhanging Connected to N40/N53 and reservoir by small stream	N/A
N42	Wetland, emergent, near Merced Falls Road	No	Emergent vegetation present Oak overhanging	N/A
N44	Wetland, emergent, near SR 132 and Las Palmas Way	Yes	Emergent and margin vegetation present Oak and shrub overhanging Wetland created between two branches of seasonal stream channel	N/A
N47	Wetland, emergent, near El Prado Road	No	Emergent and margin vegetation present Oak and shrub overhanging on east side Wetland in seasonal stream channel Crosses Merced Falls Road	N/A
N48	Wetland, forested/shrub, near Marshes Flat Road	No	Emergent vegetation present Oak and shrub overhanging Directly connected to N41/N49	N/A
N49	Wetland, forested/shrub, near Marshes Flat Road	Yes	Emergent and margin vegetation present Oak, pine, and shrub overhanging Directly connected to N41 (pond)	N/A
N51	Freshwater emergent wetland, near Merced Falls Road	No	Emergent vegetation present Oak overhanging No standing water	N/A
N52	Pond, perennial, near Marshes Flat Road and Hatch Creek Road	Yes	Size: 40m x 53m Emergent vegetation: grass, forbs, duckweed Overhanging: blackberry, toyon, mountain mahogany, tree of heaven Substrate: soil and organic matter Field assessed on 4/17/12 Sierran treefrog present American bullfrog present	0793 - 0812
N55	Pond, seasonal , near Penole Peak Road	No	No emergent vegetation present No tree cover or overhanging vegetation	N/A

Site Number ^{1,2,3}	Habitat Feature/Seasonality/ Location	Meets 20- Week Criterion	Notes ⁴	Photo Number
N56	Pond, perennial	Yes	Emergent vegetation present Oak and pine overhanging	N/A
N57	Stream, perennial with emergent wetland, near El Cerrito Way	Yes	Emergent vegetation present Oak and shrub overhanging	N/A
N60	Pond, perennial, near Marshes Flat Road	Yes	Size: 33m x 26m Emergent and margin vegetation: forbs and grasses Overhanging: redbud Substrate: soil and organic matter Field assessed on 4/17/12 Sierran treefrog present	0777 - 0782
N61	Pond, perennial, near Arbolada Drive	Yes	No emergent vegetation Oak and pine overhanging	N/A
N62	Pond, perennial, near Hoyito Circle	Yes	Emergent and margin vegetation present Oak and shrub overhanging Directly connected to F53	N/A
N63	Pond, perennial, near Las Palmas Way	Yes	Emergent vegetation present No tree cover or overhanging vegetation Pond near school	N/A
N67	Wetland, forested/shrub	No	No emergent vegetation present Oak and, pine, and shrub overhanging Adjacent to N68/N72 (pond)	N/A
N68	Pond, perennial, near Buena Vista Court	Yes	Emergent and margin vegetation present Oak and shrub overhanging	N/A
N69	Pond, perennial, near Penole Peak Road	Yes	Emergent and margin vegetation present Oak overhanging	N/A
N71	Stream, perennial, adjacent to SR 132	Yes	Emergent vegetation present Oak overhanging Vegetated throughout stream channel	N/A
N73	Wetland, emergent, around ephemeral stream channel stream channel, near Madreselva Street	No	Emergent vegetation present Oak and shrub overhanging No standing water present	N/A
N74	Wetland, emergent, near Merced Falls Road	No	No emergent vegetation present No tree cover or overhanging vegetation Field adjacent to baseball diamond near school	N/A
N75	Stream, perennial	Yes	Bankfull width: 2 – 3 m; gradient: 2 - 4 percent Pool size: 1m x 10m Non-pool habitat: run, riffle, step- pool, cascade Emergent Vegetation: forbs and grasses	0783 - 0790

Site Number ^{1,2,3}	Habitat Feature/Seasonality/ Location	Meets 20- Week Criterion	Notes ⁴	Photo Number
			Overhanging: oak Substrate: soil, organic matter, boulders, cobbles, gravel Banks are steep and deeply incised with vegetation. Field assessed on 4/17/12 Sierran treefrog present Within 1 mile of historic California red legged frog location	
N76	Stock pond, perennial	Yes	No emergent vegetation present No tree cover or overhanging vegetation	N/A
N77	Pond, perennial, near Old Don Pedro Road	Yes	Emergent vegetation present Oak overhanging	N/A
N78	Stream, perennial, Sixbit Gulch	Yes	Bank full width: 3m Depth at bank full: 0.5m Size of pools: 2m x 4m Maximum depth of pool: 0.5m Emergent vegetation: sedges, grasses, forbs Overhanging: willow and Western spicebush Substrate: bedrock and cobbles Field assessed on 6/21/12 Fish present	1681 -1688
N79	Stream, seasonal, near Red Hills Road	Yes	Emergent and margin vegetation present Some oak overhanging Wetland follows stream channel	N/A
N82	Pond, perennial, near Shawmut Road	Yes	Size: 480m x 20m Emergent vegetation: rushes, plantego, grass No overhanging vegetation Substrate: soil and organic matter Field assessed on 4/18/12	0987 - 0992
N83	Wetland, forested/shrub	No	No emergent vegetation present Oak and shrub overhanging No standing water	N/A
N84	Pond, perennial	Yes	Emergent and aquatic vegetation present No tree cover or overhanging vegetation	N/A
N85	Stream, perennial with emergent wetland, near Old Don Pedro Road	Yes	Emergent and margin vegetation present Oak overhanging	N/A
N87	Pond, perennial	Yes	Emergent and aquatic vegetation present Oak and shrub overhanging Connected to Don Pedro Reservoir by small stream	N/A
N89	Pond, perennial	Yes	Emergent vegetation present	N/A

Site Number ^{1,2,3}	Habitat Feature/Seasonality/ Location	Meets 20- Week Criterion	Notes ⁴	Photo Number
			Some oak overhanging	
N90	Wetland, emergent	No	Emergent vegetation present No tree cover or overhanging vegetation Connected to Big Creek by intermittent stream channel	N/A
N91	Pond, perennial, near Old Don Pedro Road	Yes	Emergent and aquatic vegetation present Oak overhanging	N/A
N92	Wetland, emergent	No	No emergent vegetation overhanging No tree cover or overhanging vegetation	N/A
N93	Wetland, emergent in ephemeral streambed	No	Emergent vegetation present Sparse oak and shrub overhanging	N/A
N94	Stream, seasonal, near SR 49	Yes	Ephemeral vegetation present Oak and shrub overhanging	N/A
N97	Pond, perennial, near Menke Hess Road	Yes	Ephemeral and margin vegetation present Oak, pine, and shrub overhanging	N/A
N98	Stream, seasonal	Yes	Ephemeral vegetation present Oak overhanging	N/A
N99	Pond, perennial, near Jacksonville Road	Yes	Emergent and margin vegetation No tree cover or overhanging vegetation	N/A
N100	Pond, perennial	Yes	Emergent vegetation present No tree cover or overhanging vegetation	N/A
N101	Stream, seasonal	Yes	Emergent and margin vegetation present Some oak and shrub overhanging	N/A
N103	Wetland, emergent	No	No emergent vegetation present No tree cover or overhanging vegetation No standing water	N/A
N106	Pond, perennial	Yes	Emergent vegetation present No tree cover or overhanging vegetation	N/A
N107	Stream, perennial (Sixbit Gulch), with forested/shrub wetland	Yes	Emergent vegetation present Pine and shrub overhanging	N/A
N108	Wetland, emergent	No	No emergent vegetation present No tree cover or overhanging vegetation Crosses SR 49 Wetland in ephemeral stream channel	N/A
N110	Wetland, emergent	No	No emergent vegetation present No tree cover or overhanging vegetation No standing water Vegetation community is red colored in July	N/A

Site Number ^{1,2,3}	Habitat Feature/Seasonality/ Location	Meets 20- Week Criterion	Notes ⁴	Photo Number
N112	Wetland, emergent, near Old Don Pedro Road	Yes	Emergent vegetation present No tree cover or overhanging vegetation	N/A
N113	Wetland, emergent, near Old Don Pedro Road	No	Emergent vegetation present No tree cover or overhanging vegetation	N/A
N115	Stream, perennial, near SR 49 and Menke Hess Road	Yes	Emergent vegetation present Oak, pine, and shrub overhanging	N/A
N116	Wetland, emergent	Yes	Emergent vegetation present Oak overhanging Formed in streambed that has been cutoff from N125 (pond) by berm	N/A
N117	Stream, perennial with emergent wetland, near Old Don Pedro Road	Yes	Emergent and margin vegetation present Oak overhanging	N/A
N118	Wetland, emergent	No	No emergent vegetation present No tree cover or overhanging vegetation No standing water Beneath power lines	N/A
N120	Wetland emergent, near Old Don Pedro Road	No	No emergent vegetation present No tree cover or overhanging vegetation No standing water Formed in enhemeral stream channel	N/A
N121	Pond, perennial, near Old Don Pedro Road	Yes	Emergent vegetation present No tree cover or overhanging vegetation	N/A
N122	Wetland, emergent, near SR 49	No	No emergent vegetation present Some oak overhanging	N/A
N123	Pond, perennial, near SR 49	Yes	Emergent and margin vegetation present Rushes overhanging	N/A
N124	Pond, perennial, near Shawmut Road	Yes	Emergent vegetation present Oak and shrub overhanging Berm separates site from N82/N95/N96	N/A
N125	Pond, perennial	Yes	Emergent and aquatic vegetation present No tree cover or overhanging vegetation	N/A
N128	Wetland, emergent	No	No emergent vegetation present No tree cover or overhanging vegetation No standing water	N/A
N131	Pond, perennial	Yes	Emergent vegetation present Oak overhanging	N/A
N132	Pond, perennial	Yes	Emergent vegetation present No tree cover or overhanging vegetation Separated from N332 by berm	N/A

Site Number ^{1,2,3}	Habitat Feature/Seasonality/ Location	Meets 20- Week Criterion	Notes ⁴	Photo Number
N133	Pond, perennial, near El Encanto and SR 59 behind gravel parking area	Yes	Size: 50m x 26m Emergent vegetation: bulrush, grasses, forbs, duckweed Overhanging: oak Substrate: soil and organic matter Field assessed on 4/19/12 Great egret present	1142 - 1145
N134	Pond, perennial	Yes	Emergent and aquatic vegetation present Oak overhanging Beneath power lines	N/A
N135	Pond, seasonal, near Paseo Seven Legends	No	No emergent vegetation No tree cover or overhanging vegetation Dry most of the year	N/A
N136	Pond, seasonal	No	No emergent vegetation No tree cover or overhanging vegetation	N/A
N137	Wetland, emergent	No	No emergent vegetation present No tree cover or overhanging vegetation No standing water Concrete trough structure present	N/A
N138	Stream pool, seasonal	No	No emergent vegetation No tree cover or overhanging vegetation	N/A
N140	Pond, seasonal	No	No emergent vegetation present Oak overhanging Dry by June	N/A
N141	Pond, perennial, near La Grange Road	Yes	Size: 10m x 20m Emergent vegetation: grasses and forbs No overhanging vegetation Substrate: soil and organic matter Field assessed on 4/19/12	1152 - 1157
N142	Pond, seasonal	No	No emergent vegetation present Oak overhanging Dry by June Adjacent to dirt road	N/A
N143	Pond, perennial, near Paseo Seven Legends	Yes	Size: 40m x 20m Emergent vegetation: rushes Aquatic: algae Oak overhanging Substrate: soil Field assessed on 6/20/12 Berm separating pond from ditch or stream Juvenile western toad present	1592 - 1609
N144	Pond, perennial	Yes	Emergent vegetation present No tree cover or overhanging vegetation	N/A
N145	Pond, perennial	Yes	Emergent vegetation present	N/A

Site Number ^{1,2,3}	Habitat Feature/Seasonality/ Location	Meets 20- Week Criterion	Notes ⁴	Photo Number
			No tree cover or overhanging vegetation	
N146	Pond, seasonal	Yes	No emergent vegetation No tree cover or overhanging vegetation	N/A
N147	Pond, perennial	Yes	Emergent vegetation present No tree cover or overhanging vegetation	N/A
N148	Pond, perennial, near La Grange Road	No	Size: 78m x 15m Emergent vegetation: Typha, duckweed Margin vegetation: rushes, grass, forbs Overhanging vegetation: plantago, oak Substrate: soil, organic matter Field assessed on 4/19/12 American bullfrog present	1169 - 1172
N149	Pond, perennial, near Bonds Flat Road	Yes	Emergent vegetation present No tree cover or overhanging vegetation	N/A
N150	Pond, seasonal, near Don Pedro Road	No	No emergent vegetation present No tree cover or overhanging vegetation	N/A
N151	Pond, seasonal	No	No emergent vegetation present No tree cover or overhanging vegetation Depression in roadway No standing water	N/A
N152	Pond, perennial	Yes	Emergent vegetation present Shrub overhanging	N/A
N153	Wetland, forested/shrub	No	No emergent vegetation present Oak overhanging No standing water	N/A
N155	Wetland, emergent	No	Emergent vegetation present No tree cover or overhanging vegetation	N/A
N156	Pond, perennial	Yes	Emergent vegetation present Oak and shrub overhanging	N/A
N157	Pond, seasonal	Yes	No emergent vegetation present Oak overhanging	N/A
N158	Pond, perennial, near Paseo Seven Legends	Yes	Size: 10m x 20m Emergent vegetation: grasses and rushes Aquatic vegetation: algae No overhanging Substrate: soil and cobbles Field assessed on 6/20/12 Separated from N158B by berm American bullfrog present	1631 - 1632, 1634, 1636 - 1641
N159	Stream pool, seasonal	No	No emergent vegetation present No tree cover or overhanging	N/A

Site Number ^{1,2,3}	Habitat Feature/Seasonality/ Location	Meets 20- Week Criterion	Notes ⁴	Photo Number
			vegetation	
N160	Pond, seasonal	No	No emergent vegetation present No tree cover or overhanging vegetation	N/A
N161	Pond, perennial	Yes	Size: 45m x 20m Emergent vegetation: rushes Aquatic vegetation: algae Oak overhanging Substrate: soil and cobbles Field assessed on 6/20/12 American bullfrog present	1611 - 1622
N162	Pond, seasonal	Yes	No emergent vegetation present No tree cover or overhanging vegetation	N/A
N163	Wetland, emergent, near Don Pedro Road	No	No emergent vegetation present No tree cover or overhanging vegetation No standing water	N/A
N164	Pond, seasonal, near Paseo Seven Legends	Yes	Size: 15m x 15m No emergent vegetation Margin vegetation : desiccated grasses No overhanging Substrate: soil Separated from N158A by berm Field assessed on 6/21/12	1689 - 1696
N165	Pond, seasonal, near Paseo Seven Legends	No	Size: 10m x 15m No emergent vegetation Forbs present throughout No overhanging Substrate: soil and cobbles Separated from N158A by berm Field assessed on 6/20/12	1633, 1635, 1636 - 1641
N166	Pond, perennial	Yes	Emergent vegetation present	N/A
N167	Stream pool, seasonal	No	No emergent vegetation present No tree cover or overhanging vegetation	N/A
N168	Stream pool, seasonal	No	No emergent vegetation present No tree cover or overhanging vegetation	N/A
N169	Pond, seasonal	Yes	Emergent vegetation present No tree cover or overhanging vegetation	N/A
N170	Pond, seasonal	Yes	No emergent vegetation present No tree cover or overhanging vegetation	N/A
N171	Pond, seasonal, near Paseo Seven Legends	No	No emergent vegetation No tree cover or overhanging vegetation Pond created by culvert in ephemeral stream channel	N/A

Site Number ^{1,2,3}	Habitat Feature/Seasonality/ Location	Meets 20- Week Criterion	Notes ⁴	Photo Number
N172	Pond, perennial, near La Grange Road	Yes	Size: 97m x 27m Emergent and margin vegetation: grasses and forbs No overhanging vegetation Substrate: soil, organic matter, subangular cobble Field assessed on 4/19/12	1158 - 1168
N174	Wetland, emergent	No	No emergent vegetation present No tree cover or overhanging vegetation	N/A
N175	Stream pool, seasonal	No	No emergent vegetation present Oak overhanging	N/A
N176	Pond, perennial	Yes	Emergent and aquatic vegetation present No tree cover or overhanging vegetation	N/A
N177	Pond, perennial	Yes	Emergent and aquatic vegetation present Oak overhanging	N/A
N178	Pond, perennial, near Las Armomitas	Yes	Emergent and margin vegetation present Shrub overhanging	N/A
N179	Pond, seasonal, near Paseo Seven Legends	Yes	Size: 30m x 10m No emergent vegetation present, grasses and forbs throughout Oak overhanging Substrate: soil, grasses, cobbles Field assessed on 6/20/12 Fed by 1m wide ditch Dry in June 2012	1586 - 1590
N180	Wetland, forested/shrub	No	No emergent vegetation present No tree cover or overhanging vegetation	N/A
N182	Pond, perennial	Yes	Emergent and margin vegetation present No tree cover or overhanging vegetation	N/A
N184	Pond, seasonal	No	No emergent vegetation present No tree cover or overhanging vegetation	N/A
N185	Pond, perennial, near Avenida Lugo Road	Yes	Emergent and margin vegetation present No tree cover or overhanging vegetation	N/A
N186	Pond, seasonal	Yes	No emergent vegetation present No tree cover or overhanging vegetation	N/A
N187	Pond, perennial, near County Road J59	Yes	Emergent vegetation present No tree cover or overhanging vegetation Used by cows	N/A
N188	Pond, perennial, near	Yes	Emergent vegetation present	N/A

Site Number ^{1,2,3}	Habitat Feature/Seasonality/ Location	Meets 20- Week Criterion	Notes ⁴	Photo Number
	Don Pedro Road		No tree cover or overhanging vegetation	
N189	Pond, seasonal, near Paseo Seven Legends	Yes	Emergent vegetation present Oak overhanging	N/A
N190	Pond, perennial, near Wards Ferry Road	Yes	Emergent, aquatic, and margin vegetation present Oak and rushes overhanging Pond vegetated throughout	N/A
N191	Pond, perennial	Yes	Emergent and aquatic vegetation present Oak and shrub overhanging	N/A
N195	Pond, perennial	Yes	Emergent vegetation present Oak overhanging	N/A
N197	Pond, perennial, near Wards Ferry Road	Yes	Emergent vegetation present Oak and shrub overhanging	N/A
N198	Pond, perennial, near Major Way	Yes	Emergent vegetation present No tree cover or overhanging vegetation	N/A
N199	Pond, perennial	Yes	Emergent and aquatic vegetation present Oak overhanging	N/A
N202	Stream, perennial (Deer Creek) with forested/shrub wetland, near Wards Ferry Road	Yes	No emergent vegetation present Oak, pine, and shrub overhanging Stream in bedrock channel	N/A
N203	Pond, perennial, near Jacksonville Road	Yes	Emergent and aquatic vegetation present Oak overhanging	N/A
N204	Pond, perennial	Yes	Emergent and aquatic vegetation present Willow overhanging	N/A
N205	Wetland, emergent	No	No emergent vegetation present Some oak overhanging	N/A
N207	Wetland, emergent	No	No emergent vegetation Shrub and pine overhanging Overlaps maintained dirt area around treatment pond (N208)	N/A
N208	Treatment pond, perennial	Yes	Emergent and aquatic vegetation present No tree cover or overhanging vegetation	N/A
N211	Wetland, emergent, near SR 49 and New Priest Grade Road	No	No emergent vegetation present Shrub overhanging	N/A
N212	Pond perennial, near Moccasin Reservoir spillway	Yes	Emergent vegetation present Oak overhanging Connected to Moccasin Reservoir by spillway under Moccasin Switchback Road	N/A
N213	Pond, perennial	Yes	Emergent vegetation present Oak overhanging	N/A
N214	Pond, perennial, near	Yes	Emergent vegetation present	N/A

Site Number ^{1,2,3}	Habitat Feature/Seasonality/ Location	Meets 20- Week Criterion	Notes ⁴	Photo Number
	Moccasin Reservoir spillway		No tree cover or overhanging vegetation	
N216	Wetland, forested/shrub	No	No emergent vegetation present Pine and shrub overhanging Depression between two hills No standing water	N/A
N217	Wetland, emergent	No	No emergent vegetation present Oak, pine, and shrub overhanging No standing water	N/A
N219	Pond, seasonal	No	Emergent vegetation present Oaks and shrub overhanging	N/A
N220	Pond, perennial	Yes	Emergent vegetation present Oak overhanging	N/A
N221	Stock pond, perennial	Yes	Emergent and aquatic vegetation present No tree cover or overhanging vegetation	N/A
N222	Pond, perennial, by Egan Road	Yes	Size: 100m x 75m Emergent vegetation: cattail/bulrush grasses, forbs, plantago, algae Oak overhanging on north side Substrate: soil and organic matter Field assessed on 4/18/12 American bullfrog present Waterfowl present	0994 - 1004
N223	Stream impoundment, seasonal	No	Stream channel appears intermittent	N/A
N224	Stream impoundment, perennial	Yes	No emergent vegetation present No tree cover or overhanging vegetation	N/A
N226	Stream impoundment, perennial	Yes	Emergent and aquatic vegetation present No tree cover or overhanging vegetation In agricultural field	N/A
N227	Stream impoundment, perennial	Yes	Emergent vegetation present No tree cover or overhanging vegetation In agricultural field	N/A
N228	Stream impoundment, seasonal	Yes	Emergent vegetation present No tree cover or overhanging vegetation In agricultural field	N/A
N229	Pond, seasonal	No	No emergent vegetation present Shrub overhanging In agricultural field	N/A
N230	Reservoir, constructed	Yes	No emergent vegetation present No tree cover or overhanging vegetation	N/A
N231	Stream impoundment	Yes	Emergent, aquatic, and margin vegetation present	N/A

Site Number ^{1,2,3}	Habitat Feature/Seasonality/ Location	Meets 20- Week Criterion	Notes ⁴	Photo Number
			Some oak overhanging on northeast side	
N232	Stock pond, constructed	Yes	No emergent vegetation present No tree cover or overhanging vegetation	N/A
N233	Pond, perennial	Yes	Emergent , aquatic, and margin vegetation present Shrub overhanging on north side	N/A
N234	Pond, seasonal	No	No emergent vegetation present No tree cover or overhanging vegetation In agricultural field	N/A
N235	Pond, perennial	Yes	Some emergent vegetation present No tree cover or overhanging vegetation	N/A
N236	Pond , perennial	Yes	Emergent vegetation present Oak overhanging on south and west sides	N/A
N237	Pond, perennial	Yes	Emergent and margin vegetation present Oak overhanging on south side	N/A
N238	Pond, perennial	Yes	Emergent, aquatic, and margin vegetation present Oak overhanging on north side	N/A
N239	Pond, emergent depression	Yes	Emergent, aquatic, and margin vegetation present Shrub overhanging along west side	N/A
N240	Pond, emergent depression	No	No emergent vegetation present No tree cover or overhanging vegetation Concrete trough structure present No standing water evident	N/A
N241	Pond, emergent depression	Yes-	No emergent vegetation present No tree cover or overhanging vegetation	N/A
N242	Stream impoundment, perennial	Yes	Emergent and margin vegetation present No tree cover or overhanging vegetation	N/A
N243	Pond, perennial	Yes	Aquatic vegetation present No tree cover or overhanging vegetation	N/A
N244	Pond,	Yes	Emergent vegetation present Oak overhanging on south side	N/A
N245	Pond, emergent depression, seasonal	No	No emergent vegetation present No tree cover or overhanging vegetation Adjacent to cleared equipment parking area	N/A
N247	Wetland, emergent depression	No	No emergent vegetation present No tree cover or overhanging vegetation	N/A

Site Number ^{1,2,3}	Habitat Feature/Seasonality/ Location	Meets 20- Week Criterion	Notes ⁴	Photo Number
			No standing water	
N248	Stream impoundment, seasonal	No	No emergent vegetation Oak overhanging southeast side Pond is dry by June	N/A
N249	Pond, perennial	Yes	Emergent and margin vegetation present Oak and pine overhanging	N/A
N250	Pond, perennial	Yes	No emergent vegetation Oak overhanging	N/A
N251	Stock pond, seasonal	No	No emergent vegetation Oak overhanging northeast side	N/A
N252	Stock pond, perennial	Yes	Emergent vegetation present No tree cover or overhanging vegetation	N/A
N253	Wetland, emergent depression	No	No emergent vegetation present Oak overhanging No standing water	N/A
N255	Stream impoundment	Yes	Emergent and aquatic vegetation present Oak and shrub overhanging	N/A
N259	Stock pond, seasonal	No	Emergent vegetation present Oak overhanging	N/A
N260	Stream impoundment, perennial	Yes	Emergent and margin vegetation present Shrub overhanging	N/A
N261	Pond, perennial, near Powell Ranch Road	Yes	Emergent and margin vegetation present Oaks and shrub overhanging	N/A
N262	Pond, emergent depression, seasonal, near Powell Ranch Road	Yes	No emergent vegetation present No tree cover or overhanging vegetation Dries by mid – late July	N/A
N263	Stream impoundment, perennial	Yes	Emergent and margin vegetation present Oaks and shrub overhanging Separated from stream by road or berm	N/A
N264	Pond, perennial	Yes	Emergent and aquatic vegetation present Oak overhanging In depression between hillside and road	N/A
N265	Pond, perennial	Yes	Emergent and margin vegetation present Oak and shrub overhanging In depression between hillside and road	N/A
N266	Road, emergent depression	No	No emergent vegetation present No tree cover or overhanging vegetation Depression in dirt road No standing water	N/A

Site Number ^{1,2,3}	Habitat Feature/Seasonality/ Location	Meets 20- Week Criterion	Notes ⁴	Photo Number
N267	Wetland, emergent depression, near Jacksonville Road	No	No emergent vegetation present Oak overhanging on south side Adjacent to road and parking area	N/A
N269	Pond, emergent depression	Yes	Emergent and margin vegetation present Oak overhanging	N/A
N270	Emergent marsh	No	Emergent and margin vegetation present No tree cover or overhanging vegetation	N/A
N271	Pond, seasonal, near New Priest Grade Road	No	Size: 10m x 5m Emergent vegetation: forbs, dock Margin vegetation: forbs No overhanging Substrate: soil and organic matter Field assessed on 6/18/12 Dry in June 2012	1453 - 1460
N272	Stream impoundment, perennial	Yes	Emergent and aquatic vegetation present No tree cover or overhanging vegetation Impoundment cause by dirt road	N/A
N273	Pond, perennial	Yes	Emergent and aquatic vegetation present Shrub and oak overhanging	N/A
N274	Wetland, emergent depression	No	No emergent vegetation present No tree cover or overhanging vegetation No standing water	N/A
N275	Wetland, emergent depression	No	No emergent vegetation present No tree cover or overhanging vegetation No standing water	N/A
N276	Stock pond, perennial	Yes	No emergent vegetation present No tree cover or overhanging vegetation	N/A
N277	Wetland, emergent depression	No	No emergent vegetation present No tree cover or overhanging vegetation	N/A
N278	Wetland, emergent depression	No	No emergent vegetation present No tree cover or overhanging vegetation	N/A
N280	Wetland, emergent	No	No emergent vegetation present Oak and shrub overhanging	N/A
N281	Wetland, emergent depression	No	No emergent vegetation present No tree cover or overhanging vegetation No standing water	N/A
N282	Wetland, emergent depression	No	No emergent vegetation present No tree cover or overhanging vegetation No standing water	N/A

Site Number ^{1,2,3}	Habitat Feature/Seasonality/ Location	Meets 20- Week Criterion	Notes ⁴	Photo Number
N283	Wetland, emergent depression	No	No emergent vegetation present No tree cover or overhanging vegetation No standing water	N/A
N285	Stream impoundment	Yes	No emergent vegetation Some oak overhanging	N/A
N286	Wetland, emergent depression	No	No emergent vegetation present No tree cover or overhanging vegetation No standing water	N/A
N287	Wetland, emergent depression	No	No emergent vegetation present No tree cover or overhanging vegetation	N/A
N288	Wetland, emergent depression	No	No emergent vegetation present Oak overhanging	N/A
N289	Wetland, emergent depression	No	No emergent vegetation present Oak overhanging	N/A
N290	Wetland, emergent depression	No	No emergent vegetation present Oak overhanging No standing water	N/A
N291	Stream impoundment, perennial	Yes	Emergent and aquatic vegetation present Oak overhanging	N/A
N292	Stream impoundment, seasonal	Yes	No emergent vegetation present No tree cover or overhanging vegetation Dry by July in low flow years	N/A
N293	Stream impoundment, perennial	Yes	Emergent vegetation present Oak overhanging in during higher flow	N/A
N294	Stream impoundment, perennial	Yes	Emergent and aquatic vegetation present No tree cover or overhanging vegetation	N/A
N296	Wetland, emergent depression, near Brunette Road	No	No emergent vegetation present No tree cover or overhanging vegetation In field adjacent to residence	N/A
N297	Stream pool, seasonal	No	No emergent vegetation present Oak overhanging Dry by June	N/A
N298	Emergent depression	No	No emergent vegetation present No tree cover or overhanging vegetation No standing water No vegetation present during growing season	N/A
N299	Stock pond, perennial	Yes	Margin vegetation present No tree cover or overhanging vegetation	N/A
N300	Stock pond, perennial, near Paseo Seven	Yes	Emergent vegetation present Oak overhanging	N/A

Site Number ^{1,2,3}	Habitat Feature/Seasonality/ Location	Meets 20- Week Criterion	Notes ⁴	Photo Number
	Legends Road			
N301	Wetland, emergent depression	No	No emergent vegetation present No tree cover or overhanging vegetation	N/A
N304	Pond, seasonal, near La Grange Road	No	Size: 2m x 4m Emergent vegetation: grasses, forbs Margin vegetation: grass, forbs Overhanging vegetation: oak on south side Substrate: soil, organic matter Field assessed on 4/19/12 Redtail hawk nest on nearby powerline	1173 - 1178
N307	Pond, perennial, near Paseo Seven Legends Road	Yes	Emergent vegetation present Oak overhanging west side	N/A
N308	Wetland, emergent depression	No	No emergent vegetation present No tree cover or overhanging vegetation	N/A
N310	Emergent depression, near Las Cruces	No	No emergent vegetation present No tree cover or overhanging vegetation	N/A
N311	Stream impoundment, perennial, near El Encino Drive	Yes	Emergent and aquatic vegetation present Oak and shrub overhanging	N/A
N312	Stream impoundment, seasonal, near El Encino Drive	Yes	No emergent vegetation present No tree cover or overhanging vegetation	N/A
N313	Stream pool, perennial, near County Road J59 and Bonds Flat Road	Yes	Emergent vegetation present Oak overhanging	N/A
N314	Stream pool, perennial, near County Road J59 and Bonds Flat Road	Yes	Emergent vegetation present No tree cover or overhanging vegetation Stream enters culvert at Bonds Flat Road	N/A
N315	Pond, emergent depression	Yes	No emergent vegetation present No tree cover or overhanging vegetation	N/A
N316	Pond, perennial, near El Encanto and SR 59 behind gravel parking area	Yes	2 excavated ponds, separated by earthen berm Pond 1 Size: 46m x 13m Pond 2 Size: 55m x 12m Emergent vegetation: rushes, grasses, forbs, dock Overhanging: oak Substrate: soil , organic matter, gravel Field assessed on 4/19/12 American bullfrog present	1146 - 1151

Site Number ^{1,2,3}	Habitat Feature/Seasonality/ Location	Meets 20- Week Criterion	Notes ⁴	Photo Number
N317	Pool, constructed	Yes	No emergent vegetation present No tree cover or overhanging vegetation	N/A
N318	Wetland, emergent depression	No	No emergent vegetation present No tree cover or overhanging vegetation	N/A
N319	Stock pond, constructed	Yes	No emergent vegetation present No tree cover or overhanging vegetation Rectangular concrete structure constructed in depression	N/A
N320	Wetland, emergent depression	No	No emergent vegetation present No tree cover or overhanging vegetation	N/A
N322	Stream pool, perennial	Yes	Emergent vegetation present Oak and shrub overhanging Stream flows through bedrock outcropping	N/A
N323	Stream pool, perennial, near Bonds Flat Road	Yes	No emergent vegetation present Oak overhanging	N/A
N324	Stream pool, near Bonds Flat Road	Yes	Emergent vegetation present No tree cover or overhanging vegetation Impoundment created by raised road grade	N/A
N325	Wetland, emergent depression	No	Emergent vegetation present No tree cover or overhanging vegetation	N/A
N327	Pond, perennial	Yes	Emergent and aquatic vegetation present No tree cover or overhanging vegetation	N/A
N328	Pond, seasonal	No	No emergent vegetation present Oak overhanging No standing water	N/A
N330	Stream pool, perennial	Yes	Emergent vegetation present No tree cover or overhanging vegetation	N/A
N331	Stream pool, perennial	Yes	Emergent vegetation present No tree cover or overhanging vegetation Connects to N332 via culvert	N/A
N332	Stream pool, perennial	Yes	Emergent vegetation present No tree cover or overhanging vegetation Connects to N331 via culvert	N/A
N333	Stream pool, perennial	Yes	Emergent vegetation present No tree cover or overhanging vegetation	N/A
N334	Stream pool, Big Creek, perennial	Yes	Emergent and margin vegetation present Oak overhanging	N/A

Site Number ^{1,2,3}	Habitat Feature/Seasonality/ Location	Meets 20- Week Criterion	Notes ⁴	Photo Number
N335	Stream pool, Big Creek, perennial	Yes	Emergent vegetation present Oak and shrub overhanging Pool in bedrock outcropping	N/A
N336	Stream pool, Big Creek, perennial	Yes	Emergent vegetation present Oak and shrub overhanging Pool in bedrock outcropping	N/A
N337	Stream pool, Big Creek, perennial	Yes	Emergent vegetation present Oak and shrub overhanging Pool in bedrock outcropping	N/A
N338	Stream pool, Big Creek, perennial	Yes	Emergent vegetation present Oak and shrub overhanging Pool in bedrock outcropping	N/A
N339	Pond, perennial	Yes	Emergent vegetation present Oak overhanging	N/A
N340	Pond, perennial, near Bonds Flat Road	Yes	No emergent vegetation present No tree cover or overhanging vegetation	N/A
N341	Pond, seasonal	Yes	Emergent vegetation present No tree cover or overhanging vegetation Mostly dry by end of July	N/A
N342	Pond, seasonal	No	Emergent vegetation present No tree cover or overhanging vegetation	N/A
N343	Pond, seasonal	No	No emergent vegetation present No tree cover or overhanging vegetation	N/A
N344	Stream impoundment, perennial	Yes	Emergent, aquatic, and margin vegetation present Oak and shrub overhanging	N/A
N346	Stream pool, perennial	Yes	Emergent vegetation present Oak and shrub overhanging	N/A
N347	Pond, perennial	Yes	Emergent vegetation present Oak and shrub overhanging	N/A
N348	Pond, perennial	Yes	Emergent vegetation and algae present No tree cover or overhanging vegetation	N/A
N351	Stream pool, perennial, near Jalapa Way	Yes	Emergent vegetation present No tree cover or overhanging vegetation Stream flows behind residences	N/A
N352	Stream pool, perennial, near Jalapa Way	Yes	Emergent vegetation present No tree cover or overhanging vegetation Stream flows around a residence	N/A
N354	Pond, perennial	Yes	Emergent and margin vegetation present No tree cover or overhanging vegetation Adjacent to dirt road	N/A
N355	Pond, perennial	Yes	Emergent and margin vegetation	N/A

Site Number ^{1,2,3}	Habitat Feature/Seasonality/ Location	Meets 20- Week Criterion	Notes ⁴	Photo Number
			present No tree cover or overhanging vegetation	
N356	Stream pool, perennial	Yes	Emergent vegetation present Oaks and shrub overhanging Behind residence	N/A
N357	Pond, perennial	Yes	Emergent and aquatic vegetation present No tree cover or overhanging vegetation	N/A

All sites in table are within the current or historic range of the CRLF. There are no known records of CRLF within 1.6 km (1 mile) of any sites. Nearest CRLF CHU is CAL-1, and is 28 miles from the Don Pedro Project. Land ownership: Orange = BLM; Pink = Private; Purple = TID/MID

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3 Sites field-assessed in bold.

4 Some aspects of the site assessment are not discernible from aerial imagery (e.g. depth, substrate, etc.).

1.2.1 Photos of Sites (Aquatic Habitat Locations) Field Assessed for Potential California Red-Legged Frog Breeding Habitat within the Don Pedro Study Area (Excluding Sites within the Project Boundary)



Figure 2.0-1. N52



Figure 2.0-3. N75



Figure 2.0-5. N133





Figure 2.0-7. N143



Figure 2.0-9. N158



Figure 2.0-11. N164



Figure 2.0-13. N172



Figure 2.0-15. N222


Figure 2.0-17. N304



Figure 2.0-18. N316

2.0 **REFERENCES**

- Basey, H.E, 2010. Retired biology professor. Modesto Junior College. E-mail with Shannon Mason, HDR|DTA. September 24, 2010.
- Hayes, M.P. and M.R. Jennings. 1988. Habitat correlates of distribution of the California red-legged frog (*Rana aurora draytonii*) and the foothill yellow-legged frog (*Rana boylii*): Implications for management. Pages 144-158. In: R.C. Szaro, K.E. Severson, and D.R. Patton (technical coordinators), Proceedings of the symposium on the management of amphibians, reptiles, and small mammals in North America. United States Department of Agriculture, Forest Service, General Technical Report (RM-166):1-458.
- Jennings, M.R, 2010. Herpetologist. Rana Resources. E-mails with Shannon Mason, HDR|DTA. September 5 and 7, 2010.
- U.S. Fish and Wildlife Service (USFWS). 2002. Recovery Plan for the California Red-legged Frog (Rana aurora draytonii). USFWS, Region 1. Portland, Oregon. viii + 173 pp. Online: <ecos.fws.gov/doc/recovery_plans/2002/020528.pdf>.
- _____. 2005. Revised guidance on site assessments and field surveys for California red-legged frog. August 2005.
- _____. 2010. Endangered and Threatened Wildlife and Plants; Revised Designation of Critical Habitat for the California Red-Legged Frog. Federal Register Vol. 75, No. 51, Page 12816 12959.