Interim Technical Memorandum 7-3

ESA-Listed Amphibians – California Red-Legged Frog

Attachment 7-3A
Part 1

California Red-Legged Frog Detailed Site Assessment Results

Yuba River Development Project
FERC Project No. 2246

November 2012

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ATTACHMENT 7-3A

CALIFORNIA RED-LEGGED FROG DETAILED SITE ASSESSMENT RESULTS

1.0 New Colgate Development Assessment Area

1.1 Overview

The assessment encompasses the area within 1.6 kilometer (km) (1.0 mile [mi]) of the Yuba County Water Agency's (YCWA or Licensee) Yuba River Development Project's (Project) New Colgate Development. The New Colgate Development includes New Bullards Bar Dam and Reservoir, Our House Diversion Dam and Impoundment, Log Cabin Diversion Dam and Impoundment, the Lohman Ridge and Camptonville diversion tunnels (which are underground facilities), New Colgate Power Tunnel (underground facility) and Penstock, New Colgate Powerhouse and Switchyard, and appurtenant access roads within the Federal Energy Regulatory (FERC) Project Boundary. The Project does not include any other water conveyance facilities (i.e., canals, flumes, or ditches), or any transmission lines, distribution lines, rights-of-way, recreation facilities, active spoil piles, or borrow areas. Likewise, the Project does not include any water conveyance systems or other facilities, features or appurtenant structures that are used by Licensee or any other party solely for the purpose of providing consumptive water.

New Bullards Bar Reservoir is a storage reservoir on the North Yuba River formed by New Bullards Bar Dam. At normal maximum water surface elevation (1,956 ft), New Bullards Bar Reservoir extends about 8.5 mi upstream, has an estimated storage capacity of 966,103 acre-feet (ac-ft), a surface area of 4,790 acres, a shoreline of about 71.9 mi, and a drainage area of 488.6 mi^2. Land ownership in the assessment area is distributed between YCWA; United States Department of Agriculture, Forest Service (Forest Service); and private property. The Project was constructed in the mid 1960s and put into service in the spring of 1970.

Although the specific hydrology of each year can vary widely, Licensee typically operates New Bullards Bar Reservoir by capturing winter and spring runoff from rain and snowmelt. The North Yuba River inflow to New Bullards Bar Reservoir is augmented by diversions from the Middle Yuba River to Oregon Creek through the Lohman Ridge Tunnel, and by diversions from Oregon Creek into the reservoir through the Camptonville Tunnel. Consequently, New Bullards Bar Reservoir normally reaches its peak storage at the end of the spring runoff season, and then is gradually drawn down until its lowest elevation in early to mid-winter. The reservoir does not undergo significant daily changes in elevation.

New Bullards Bar Reservoir is a relatively deep reservoir, with still or slow-moving water, and mostly steeply sloped banks. Licensee's Pre-Application Document (PAD) (YCWA 2010) indicates that New Bullards Bar supports numerous game fish species and has a long history of fish stocking by California Fish and Game (CDFG) dating back to 1959. Planted species include Kokanee (*Oncorhynchus nerka*), rainbow trout (*O. mykiss*), brook trout (*Salvelinus fontinalis*),

cutthroat trout (*O. clarki*), and spotted bass (*Micropterus punctulatus*). Besides these fishes, sport fishermen report catching in the reservoir largemouth bass (*M. salmoides*), smallmouth bass (*Micropterus dolomieui*), redear sunfish (*Lepomis microlophus*), crappie (*Pomoxis* sp.), bluegill (*L. macrochirus*) and channel catfish (*Ictalurus punctatus*). Non-native bass, bluegill, and sunfish are known to prey upon California red-legged frog (CRLF) (*Rana draytonii*) (USFWS 2002; Hayes and Jennings 1988) and smallmouth bass can reduce numbers of CRLF at sites (Gilliland 2010). Deep lacustrine water bodies, particularly where fish occur, are not known to provide breeding habitat for CRLF, although adult CRLF have been reported to occur at some reservoirs (USFWS 2002).

The assessment area also includes two other, smaller impoundments: Our House Diversion Dam Impoundment on the Middle Yuba River and Log Cabin Diversion Dam Impoundment on Oregon Creek. The latter was treated as an assessment site; however, conditions at Our House Diversion Dam Impoundment are not potentially suitable for CRLF breeding habitat and the impoundment was not treated as an assessment site. The Middle Yuba River originates at an elevation of approximately 7,200 feet, and flows westerly for about 41.4 mi to the Project's Our House Diversion Dam at River Mile (RM) 12.1. The drainage area at Our House Diversion Dam is 144.8 square miles, 39.8 mi^2 of which lies upstream of Nevada Irrigation District's Milton Diversion Dam. Although Middle Yuba River flows upstream of Our House Diversion Dam are reduced by upstream projects, flows of great magnitude driven by snow-melt runoff occur in most years, conditions unsuitable for CRLF breeding.

1.2 Assessment Sites

A total of 149 aquatic sites in the New Colgate Development assessment area were identified and assessed as potentially suitable as breeding habitat for CRLF. Maps showing site locations, land ownership, vegetation cover types, and other features are presented in Attachment 7-3A, Parts 3 and 4. Land ownership in the assessment area is principally Forest Service and private, with YCWA ownership occurring around New Bullards Bar Reservoir, in the vicinity of New Colgate Powerhouse, and Log Cabin Diversion Dam. Existing land uses include forestry, limited residential development and recreation. The area is characterized by rugged topography with mostly steep gradient streams and few wetlands that are not associated with stream courses. Most of the area is forested, except where recently logged or burned by forest fire. Dense brush, particularly Himalayan blackberry (*Rubus armeniacus* [*discolor*]) and Scot's (Scotch) broom (*Cytisus scoparius*), is prevalent in disturbed habitats. Recreational use is low, except at New Bullards Bar Reservoir and associated trails/campsites around the Reservoir. Within parts of the study area, evidence of historical placer mining includes tailings piles and depressions, some of which hold water seasonally or persistently and are potential habitat for amphibians.

Forests in the assessment area are predominately classified by CalVeg as Douglas-fir-Ponderosa Pine and Mixed Conifer, with Ponderosa Pine, California Black Oak and Canyon Live Oak also common throughout the study area. Large blocks of clear-cut harvested timber in the vicinity of Little Oregon Creek, including areas classified as Barren, Deerbrush, and Tanoak, are currently in early successional stages (CalVeg 2010). Potential impediments to CRLF upland dispersal include New Bullards Bar Reservoir and steep terrain. Principal paved roads in the assessment

area that are most heavily traveled include Highway 49 and Marysville Road. Smaller roads, including Lake Francis Road, Moonshine Road, Kelly Road, Oregon Hill Road, Fountain Hill Road, Moran Road, Baker Road, McClain Road, Pendola Road, and Old Camptonville Road, also occur in the assessment area, but are not as heavily traveled, as these roads primarily provide access to local residents, YCWA, and the Forest Service. Several Forest Service roads located on the west side of New Bullards Bar Reservoir appear to be rarely used; some roads in the northwest portion of the assessment area, such as Tuscan Way, appear to have been abandoned. The northernmost part of the assessment area generally lacks roads altogether.

A total of 149 sites were assessed: 59 in the field, including 18 that were assessed from adjacent, public roads because of private property restrictions; and 90 sites that were not accessible for on-site assessment, and were therefore assessed from aerial imagery.

Documented occurrences of CRLF are reported from the assessment area from two closely adjacent locations (about 70 m apart) within mine tailing wetlands near Little Oregon Creek (Barry 2000, 2002). Usually treated as one site, the two locations are described as small (6 m^2 and 15 m^2), spring-fed pools with rocky substrate. As many as eight adult CRLF have been observed on one date (June 1, 2004) between the two sites, based on information available to Licensee (M. Tierney, Forest Service, transcribed field notes, 2009), when unidentified tadpoles were also observed. Two large CRLF tadpoles were observed at one of the sites in 2001 (Barry 2002). A 2,559 hectare (6,324 acre) critical habitat (Unit YUB-1) was designated surrounding this population (USFWS 2010). Approximately 1,346 hectares (3,325 acres) of the critical habitat unit is within the Study area. Barry (2002) identified few other locations potentially suitable for CRLF, including two excavated "potholes" between Oregon Hill Road and Little Oregon Creek. Protocol surveys of these potholes by Barry revealed no CRLF. Barry (2002) also identified one large plunge pool in Indian Creek at the Forest Service road 19N03 crossing as having potential CRLF breeding habitat (see site IC1 in this document). A review of the California Natural Diversity Database indicated no other historical records of CRLF within or in the vicinity of the assessment area (CDFG 2012).

Licensee has implemented measures to minimize potential effects of Project-related recreation on CRLF in the vicinity of the Little Oregon Creek population. The existing Project recreation plan includes annual gated closure of Moran Road from October 15 – May 1 in part to protect CRLF (as well as bald eagle [*Haliaeetus leucocephalus*]), and to assure public safety (YCWA 1993).

Table 1.2-1. Summary of sites (aquatic habitat locations) field assessed for potential CRLF breeding habitat within the New Colgate Development Assessment Area for the Yuba River Development Project.

Site[1, 2]	Habitat Feature/Seasonality/Location	Date Field Assessed	Meets 20-Week Criterion	Description[3]
CC1	Stream, perennial (Cottage Creek mainstem) near Oregon Hill Road	3/2/12 (follow-up visit 6/1/12)	Yes	Series of pools and low-gradient riffles. No aquatic or emergent vegetation present. Flowing water observed in channel during follow-up visit. Fish have been historically observed in pond downstream of creek (CC-4). 4.1 km from nearest known CRLF occurrence; not located within critical habitat unit.

Table 1.2-1. (continued)

Site[1, 2]	Habitat Feature/Seasonality/Location	Date Field Assessed	Meets 20-Week Criterion	Description[3]
CC4	Open water wetland, perennial; pond connected to mainstem of Cottage Creek, southwest of Emerald Cove Marina	3/2/12 (follow-up visit 6/20/12)	Yes	Excavated and impounded feature; inundated when assessed and on follow-up visit. West portion of pond dominated by cattail (*Typha* sp.), east portion of pond had scattered soft rush (*Juncus effusus*). Estimated water depth of over 3m. Fish reported to occur. 4.5 km from nearest known CRLF occurrence; not located within critical habitat unit.
CC5	Stream, perennial (Cottage Creek mainstem) adjacent to Emerald Cove Marina Road 169	3/2/12 (follow-up visit 6/1/12)	Yes	Pool segment downstream of culvert that discharges from CC4. No aquatic or emergent vegetation present. Flowing water observed in channel during follow-up visit. Fish are known to occur in CC4. 4.5 km from nearest known CRLF occurrence; not located within critical habitat unit.
CR1	Stream, perennial (Chute Ravine mainstem) south of Marysville Road	3/2/12 (follow-up visit 6/1/12)	Yes	Pool below road culvert, upstream of low gradient riffle. No aquatic or emergent vegetation present. Site was viewed from road embankment. Flowing water observed in channel during follow-up visit. Fish presence is unknown. 5.8 km from nearest known CRLF occurrence; not located within critical habitat unit.
LF2	Open water wetland, perennial, located south of Marysville Road.	3/2/12 (follow-up visit 6/5/12)	Yes	Large depression; may be a mine tailing pond. Predominantly open water with some cattail and soft rush at pond margin. The site was viewed from the road. Inundation observed during follow-up visit. Estimated depth of at least 1 m. Fish presence is unknown. 7.0 km from nearest known CRLF; not located within critical habitat unit.
LF3	Stream, seasonal (tributary to Lake Francis), located north of Marysville Road.	3/2/12 (follow-up visit 6/1/12)	?	Series of pools and high-gradient riffles. No aquatic or emergent vegetation present. No flowing water observed in channel during follow-up visit. Fish presence is unknown. 6.9 km from nearest known CRLF occurrence; not located within critical habitat unit.
YR2	Stream, seasonal (Yuba River tributary), located north of Lake Francis Road	3/2/12 (follow-up visit 5/23/12)	?	Small pools interspersed between high gradient riffles. No aquatic or emergent vegetation present. Flowing water observed in channel during follow-up visit. Fish presence is unknown. 10.7 km from nearest known CRLF occurrence; not located within critical habitat unit.
YR3	Pond, seasonal, located southeast of Lake Francis Road	3/2/12 (follow-up visit 5/23/12)	No	Excavated feature; inundated up to 0.5 m when assessed; dry on follow-up visit. The site was viewed from the road. Grazed pasture grasses at pond margin. Not accessible to fish. 9.9 km from nearest known CRLF occurrence; not located within critical habitat unit.
DoC1	Stream, seasonal (Dobbins Creek tributary), located east of Lake Francis Road	3/2/12 (follow-up visit 5/23/12)	No	Small pools interspersed between low gradient riffles; dry on follow-up visit. The site was viewed from the road. Sparse grasses below the top of bank. Fish presence is unknown. 8.5 km from nearest known CRLF occurrence; not located within critical habitat unit.
DoC3	Pond, perennial, located northeast of Lake Francis Road	3/2/12 (follow-up visit 5/23/12)	Yes	Large depression, likely excavated; estimated depth of 0.5m when assessed; inundated on follow-up visit. The site was viewed from the road. Mowed pasture grasses at pond margin. Not accessible to fish. 8.7 km from nearest known CRLF occurrence; not located within critical habitat unit.

Table 1.2-1. (continued)

Site[1, 2]	Habitat Feature/Seasonality/Location	Date Field Assessed	Meets 20-Week Criterion	Description
DoC6	Stream, seasonal (connected to Dobbins Creek tributary), located east of Lake Francis Road	3/2/12 (follow-up visit 5/23/12)	No	Small pools interspersed between low gradient riffles; dry on follow-up visit. The site was viewed from the road. Negligible emergent vegetation in stream channel. Fish presence is unknown. 9.1 km from nearest known CRLF occurrence; not located within critical habitat unit.
DoC8	Stream, seasonal (Dobbins Creek tributary), located on the east and west sides of Lake Francis Road	3/2/12 (follow-up visit 5/23/12)	Yes	Pools interspersed between low gradient riffles; flowing water on follow-up visit. Cattail and watercress (*Rorippa* sp.) growing in the channel on the east side of the road; sparse watercress on the west side of the road. The site was viewed from the road. Fish presence is unknown. 9.2 km from nearest known CRLF occurrence; not located within critical habitat unit.
WaC1	Stream, seasonal (Wagner Creek mainstem), located west of Kelly Road	3/5/12 (follow-up visit 6/20/12)	Yes	Pools interspersed between low gradient riffles. No aquatic or emergent vegetation present. Flowing water on follow-up visit. Fish presence is unknown. 6.5 km from nearest known CRLF occurrence; not located within critical habitat unit.
MoC1	Stream, perennial (Moonshine Creek mainstem), located east of Kelly Road	3/5/12 (follow-up visit 6/20/12)	Yes	Low-gradient stream with numerous pools. Flowing water on follow-up visit. Moderately dense cattail and bulrush (*Scirpus* sp.) growing in stream channel. Fish presence is unknown. 6.5 km from nearest known CRLF occurrence; not located within critical habitat unit.
MoC2	Stream, perennial (Moonshine Creek mainstem), located south of Kelly Road	3/5/12 (follow-up visit 6/20/12)	Yes	Impounded stream reach forming a long pool. Flowing water on follow-up visit. Site sparsely vegetated with water-purslane (*Ludwigia palustris*) within the channel. Fish presence is unknown. 6.5 km from nearest known CRLF occurrence; not located within critical habitat unit.
MoC3	Emergent wetland connected to Moonshine Creek, located east of Kelly Road	3/5/12 (follow-up visit 6/20/12)	Yes	Wetland formed at confluence of Moonshine and Hornswoggle creeks; 0.15m inundation depth when assessed. Limited areas of inundation on follow-up visit. Cattail, bulrush, and soft rush growing throughout wetland. Fish presence unknown. 6.5 km from nearest known CRLF occurrence; not located within critical habitat unit.
HoC1	Stream, perennial (Hornswoggle Creek mainstem), located west of Kelly Road	3/5/12 (follow-up visit 6/20/12)	Yes	Low-gradient stream with numerous pools. Flowing water on follow-up visit. Upstream portion of stream lacks aquatic or emergent vegetation; dense horsetail (*Equisetum* sp.) growing in mouth of creek during follow-up visit. Fish presence is unknown. 6.4 km from nearest known CRLF occurrence and outside of critical habitat unit.
WiC1	Stream, perennial (Willow Creek mainstem), located at Pendola Road Crossing	3/5/12	Yes	Moderate-gradient stream with numerous pools. No aquatic or emergent vegetation present. Fish presence is unknown. 10.3 km from nearest known CRLF occurrence; not located within critical habitat unit.
MiC1	Stream, perennial (Mill Creek tributary), located northwest of Baker Road	3/5/12	Yes	Impounded tributary forming a moderately-sized pool. Willow (*Salix* sp.) runners growing in ponded area; scattered scouring rush (*Equisetum hyemale*) and cattail at the pond margin. Fish presence is unknown. 5.4 km from nearest known CRLF occurrence; not located within critical habitat unit.
MiC2	Emergent and scrub-shrub wetland connected to the mainstem of Mill Creek, perennial, located south of Baker Road	3/5/12	Yes[3]	Impounded feature inundated when assessed. Dense cattail around margin of open water in south portion of wetland; dense willows, grasses and rushes in north portion of wetland. Estimated water depth of at least 1m. 5.3 km from nearest known CRLF occurrence; not located within critical habitat unit.

Table 1.2-1. (continued)

Site[1, 2]	Habitat Feature/Seasonality/Location	Date Field Assessed	Meets 20-Week Criterion	Description
PR1	Pond, perennial, located west of Pendola Road	3/5/12	Yes[3]	Excavated stock pond inundated when assessed. Dense grasses and scattered cattail growing around margin of pond. Estimated water depth of up to 1m. 9 km from nearest known CRLF occurrence; not located within critical habitat unit.
TPR2	Pond, perennial, located west of Pendola Road	3/5/12	Yes[3]	Excavated pond inundated when assessed. Rushes and grasses growing around margin of pond. Estimated water depth of up to 1m. 9 km from nearest known CRLF occurrence; not located within critical habitat unit.
NYRSta1	Wetland, seasonal, located at the North Yuba Ranger Station	3/5/12 (follow-up visit 6/20/12)	No	Excavated linear wetland feature; 0.1 m inundation depth when assessed; dry on follow-up visit. Scattered grasses and soft rush growing in wetland. Fish presence unknown. 9.1 km from nearest known CRLF occurrence; not located within critical habitat unit.
NBB31	Stream, perennial (unnamed tributary to New Bullards Bar Reservoir), located west of Peterson Ridge Road	3/6/12	Yes	Low-gradient stream with numerous pools. No aquatic or emergent vegetation present. Fish presence is unknown. 4.5 km from nearest known CRLF occurrence; not located within critical habitat unit.
IC1	Stream, perennial (Indian Creek mainstem), located at Peterson Ridge Road crossing	3/6/12	Yes	Low-gradient stream with numerous pools including one large plunge pool at road crossing. No aquatic or emergent vegetation, but some small and large woody debris present in channel. Fish presence is unknown. 4.0 km from nearest known CRLF occurrence; not located within critical habitat unit.
SJC1	Stream, seasonal (Slapjack Creek tributary), located at Peterson Ridge Road crossing	3/6/12	?	Moderate-gradient stream with a plunge pool at road crossing. No aquatic or emergent vegetation present. Fish presence is unknown. 6.5 km from nearest known CRLF occurrence; not located within critical habitat unit.
HaC1	Wetland, perennial, connected to Hampshire Creek tributary	3/6/12	Yes	Wetland formed along Hampshire Creek; 0.8 m inundation depth when assessed. Soft rush and bulrush growing throughout wetland. Fish presence is unknown. 12.2 km from nearest known CRLF occurrence; not located within critical habitat unit.
HaC2	Wetland, perennial, connected to Hampshire Creek tributary	3/6/12	Yes	Wetland formed along Hampshire Creek; 0.8 m inundation depth when assessed. Soft rush and bulrush growing throughout wetland. Fish presence is unknown. 12.1 km from nearest known CRLF occurrence; not located within critical habitat unit.
HaC3A	Wetland, seasonal, south of Tuscan Way	3/6/12	?	Slope wetland formed by groundwater discharge from hill-slopes; 0.1 m inundation depth when assessed. Soft rush and bulrush growing throughout wetland. Fish presence unknown. 12.1 km from nearest known CRLF occurrence; not located within critical habitat unit.
LO1	Stream, perennial (Little Oregon Creek, mainstem) by Oregon Hill Road	11/16/11	Yes	Pool between low gradient riffles. No aquatic or emergent vegetation present. Fish are known to occur in Little Oregon Creek. 384 m from nearest known CRLF occurrence and within critical habitat unit.
LO2	Stream, perennial (Little Oregon Creek tributary) by Oregon Hill Road	11/15/11	Yes	Pool below road culvert; partially impounded by an artificial weir. Site was viewed from the road. No aquatic or emergent vegetation present. Fish are known to occur in mainstem of Little Oregon Creek. 995 m from nearest known CRLF occurrence and within critical habitat unit.
LO3	Stream, perennial (Little Oregon Creek tributary) by Oregon Hill Road	11/15/11	Yes	Pool below road culvert, upstream of low gradient riffle. Site was viewed from the road. Fish are known to occur in mainstem of Little Oregon Creek. 684 m from nearest known CRLF occurrence and within critical habitat unit.

Table 1.2-1. (continued)

Site[1, 2]	Habitat Feature/Seasonality/Location	Date Field Assessed	Meets 20-Week Criterion	Description
LO6	Stream, perennial (Little Oregon Creek tributary) by Fountain House Road	11/15/11	Yes	Pool below road culvert, upstream of riffle/run complex. No aquatic or emergent vegetation present. Fish are known to occur in mainstem of Little Oregon Creek. 2.0 km from nearest known CRLF occurrence and within critical habitat unit.
LO10	Stream, perennial (Little Oregon Creek, mainstem) within operational elevation of reservoir	11/16/11	Yes	Mid-channel pool between two riffles. No aquatic and sparse emergent vegetation present. Fish are known to occur in Little Oregon Creek. 855 m from nearest known CRLF occurrence and within critical habitat unit.
LO11	Emergent wetland, seasonal; east of Oregon Hill Road	Based on photos from 4/5/11	?	Depression possibly associated with mine tailings; held water on 4/5/11, mostly covered by large, woody material. Observed water depth of 0.2 m. Giant chain fern (*Woodwardia fimbriata*) and sedge (*Carex* sp.) present. Not accessible to fish. 247 m from nearest known CRLF occurrence and within critical habitat unit.
LO12	Emergent wetland, seasonal; east of Oregon Hill Road	11/15/11	?	Mine tailing depression, moist when assessed and dominated by cattail, dogwood (*Cornus* sp.), and willow. Observed water depth of 0.3 m. Not accessible to fish. 350 m from nearest known CRLF occurrence and within critical habitat unit.
LO13	Stream, perennial (Little Oregon Creek tributary) by Oregon Hill Road	11/15/11	Yes	Pool below road culvert; artificially impounded by partial weir. No aquatic or emergent vegetation present. One unidentified fish was observed in the plunge pool. 468 m from nearest known CRLF occurrence and within critical habitat unit.
LO14	Stream, perennial (Little Oregon Creek, mainstem) by Oregon Hill Road	11/14/11	Yes	Large pool below three road culverts. No aquatic or emergent vegetation present. Fish are known to occur in Little Oregon Creek. 81 m from nearest known CRLF occurrence and within critical habitat unit.
LO15	Emergent wetland, perennial; east of Oregon Hill Road and north of mainstem of Little Oregon Creek	11/15/11	Yes	Mine tailing depression, with 0.15 m water when assessed. Dense small-fruited bulrush (*Scirpus microcarpus*), horsetail, cress, and soft rush present. Not accessible to fish. 291 m from nearest known CRLF occurrence and within critical habitat unit.
LO16	Emergent wetland, perennial; east of Oregon Hill Road and north of mainstem of Little Oregon Creek	11/14/11	Yes	Mine tailing depression, with 0.1 m water when assessed. Dense small-fruited bulrush, soft rush, slough sedge (*Carex obnupta*) and spike-rush (*Eleocharis* sp.) present. Not accessible to fish. 286 m from nearest known CRLF occurrence and within critical habitat unit.
LO17	Emergent wetland, perennial; between Oregon Hill Road and New Bullards Bar Reservoir	11/14/11	Yes	Mine tailing depression, with 0.2 m water when assessed. Dense small-fruited bulrush and areas of open water with pond weed (*Potamogeton* sp.) present. Not accessible to fish. 602 m from nearest known CRLF occurrence and within critical habitat unit.
LO18	Stream, perennial (Little Oregon Creek, mainstem); between Oregon Hill Road and New Bullards Bar Reservoir	11/14/11	Yes	Mid-channel pool. Sparse small-fruited bulrush near stream margin. Fish are known to occur in Little Oregon Creek. 596 m from nearest known CRLF occurrence and within critical habitat unit.
LO19	Side-channel of Little Oregon Creek, perennial; east of Oregon Hill Road	11/14/11	Yes	Side channel seep, connected to Little Oregon Creek at higher flows. Observed water depth of 0.1 m. Dense American brooklime (*Veronica americana*) present. Fish are known to occur in Little Oregon Creek. 204 m from nearest known CRLF occurrence and within critical habitat unit.
LO20	Stream, perennial (Little Oregon Creek, mainstem); between Oregon Hill Road and New Bullards Bar Reservoir	11/14/11	Yes	Mid-channel pool between low gradient riffles. No aquatic or emergent vegetation present. Fish are known to occur in Little Oregon Creek. 116 m from nearest known CRLF occurrence and within critical habitat unit.

Table 1.2-1. (continued)

Site[1, 2]	Habitat Feature/Seasonality/Location	Date Field Assessed	Meets 20-Week Criterion	Description
LO21	Emergent wetland, seasonal or semi-permanent; east of Oregon Hill Road	11/14/11, (also visited 12/19/11 3/5/12, and 6/1/12)	Yes	Series of mine tailing depressions, with less than 0.01 m water when assessed; inundated during subsequent visits. Dense giant chain fern in all but one of the depressions. Includes small mine tailing with reported CRLF occurrence and within critical habitat unit. Not accessible to fish.
LO22	Emergent wetland, seasonal; east of Oregon Hill Road	11/14/11 (follow-up visit 6/20/12)	No	Mine tailing depression, dry when assessed and on follow-up visit. Dense giant chain fern present. Not accessible to fish. 40 m from nearest known CRLF occurrence and within critical habitat unit.
LO23	Emergent wetland, perennial; between Oregon Hill Road and New Bullards Bar Reservoir	11/15/11	Yes	Mine tailing depression, with 0.3 m water when assessed. Open water, with some pond weed, in half of depression, other half dominated by cattail and soft rush. Not accessible to fish. 391 m from nearest known CRLF occurrence and within critical habitat unit.
LO24	Emergent wetland, seasonal; east of Oregon Hill Road	11/15/11	?	Mine tailing depression, dry when assessed. Dense giant chain fern present. Not accessible to fish. 280 m from nearest known CRLF occurrence and within critical habitat unit.
LO28	Emergent wetland, perennial; east of Oregon Hill Road	Site photos 12/19/11, assessed 3/5/12 (follow-up visit 5/31/12)	Yes	Site is a mine tailing depression and one of the reported locations of CRLF in the assessment area. Observed water depth on 0.3 m at time of assessment; inundated during follow up visit. Bulrush, American brooklime, and pondweed present. Not accessible to fish. Within critical habitat unit.
NBB35A	Stream, perennial (unnamed) by Moran Road	11/16/11	Yes	Pool above road culvert, downstream of riffle. Soft rush present. 1.4 km from nearest known CRLF occurrence and within critical habitat unit.
NBB35B	Stream, perennial (unnamed) by New Bullards Bar Reservoir	11/16/11	Yes	Stream segment lacking pools. Narrow band of wetland fringes the left bank of the stream. Scouring rush and small-fruited bulrush present. 1.2 km from nearest known CRLF occurrence and within critical habitat unit.
NBB36	Stream, perennial (unnamed) by New Bullards Bar Reservoir	11/16/11	Yes	Stream segment lacking pools. Narrow band of wetland fringes the stream. Field horsetail (*Equisetum arvense*), soft rush, and mannagrass (*Glyceria* sp.) present. 1.1 km from nearest known CRLF occurrence and within critical habitat unit.
BB1	Stream, seasonal (Burnt Bridge Creek tributary) by Oregon Hill Road	11/15/11	No	Stream segment lacking pools. Dry when assessed. No aquatic or emergent vegetation present. The site was viewed from the road. Fish are likely to occur in the mainstem of Burnt Bridge Creek. 1.9 km from nearest known CRLF occurrence; not located within critical habitat unit.
BB2	Stream, perennial (Burnt Bridge Creek tributary) by Oregon Hill Road	11/15/11	Yes	Pool above road culvert. No aquatic or emergent vegetation present. The site was viewed from the road. Fish are likely to occur in mainstem of Burnt Bridge Creek. 1.5 km from nearest known CRLF occurrence and within critical habitat unit.
BB3	Stream, perennial (Burnt Bridge Creek, mainstem) by Oregon Hill Road	11/15/11	Yes	Pool below road culvert. No aquatic or emergent vegetation present. Fish are likely to occur in mainstem of Burnt Bridge Creek. 1.3 km from nearest known CRLF occurrence and within critical habitat unit.
BB4	Stream, perennial (Burnt Bridge Creek, mainstem) between Oregon Hill Road and New Bullards Bar Reservoir	11/16/11	Yes	Stream channel densely covered in blackberry (*Rubus* sp.) and California wild grape (*Vitis californica*) downstream of pool. No aquatic or emergent vegetation present. Fish are likely to occur in mainstem of Burnt Bridge Creek. 1.3 km from nearest known CRLF occurrence and within critical habitat unit.

Table 1.2-1. (continued)

Site[1, 2]	Habitat Feature/Seasonality/Location	Date Field Assessed	Meets 20-Week Criterion	Description
BB5	Stream, perennial (Burnt Bridge Creek tributary) at Forest Service road crossing	11/16/11	Yes	Pool below culvert. No aquatic or emergent vegetation present. Fish are likely to occur in mainstem of Burnt Bridge Creek. 2.5 km from nearest known CRLF occurrence and within critical habitat unit.
BB6	Stream, perennial (Burnt Bridge Creek, mainstem) at Forest Service road crossing	11/16/11	Yes	Pools above and below culvert. No aquatic or emergent vegetation present. Fish are likely to occur in mainstem of Burnt Bridge Creek. 2.7 km from nearest known CRLF occurrence and within critical habitat unit.
Log Cabin Diversion Dam Impoundment	Stream, perennial (Oregon Creek, mainstem), impoundment upstream of Log Cabin Diversion Dam	5/24/12	Yes	Impounded creek forming a large pool at least 4m deep at bankfull. Patches of aquatic vegetation in sandy substrate in downstream end of impoundment. Fish present. 10.1 km from nearest known CRLF occurrence; not located within critical habitat unit.

Key: CRLF = California red-legged frog; km = kilometer; m = meter

[1] Land ownership within 1.6 km of project boundary: Green = Forest Service (United States Department of Agriculture, Forest Service); Pink = Private; Purple = YCWA (Yuba County Water Agency); Orange = Forest Service/YCWA combined ownership; Brown = Forest Service/Private combined ownership

[2] Sites within the Project Boundary are highlighted in bold text.

[3] Evidence of inundation visible on mid to late summer aerial photos from GoogleEarth Pro (2012)

Table 1.2-2. Summary of sites (aquatic habitat locations) assessed from aerial photographs for potential CRLF breeding habitat within the New Colgate Development Assessment Area for the Yuba River Development Project.

Site[1, 2]	Habitat Feature/Seasonality/Location	Meets 20-Week Criterion	Description
French Ravine	Stream, perennial (Yuba River tributary), south of New Colgate Powerhouse	Yes	High-gradient stream with significant pools unlikely. Aquatic/emergent vegetation presence unknown; dense riparian canopy. Dense riparian vegetation. Fish presence unknown. 11.3 km from nearest known CRLF occurrence; not located within critical habitat unit
Dobbins Creek	Stream, perennial (Dobbins Creek, mainstem), west of New Colgate Powerhouse	Yes	High-gradient stream with significant pools unlikely. Mapped by NWI as palustrine forested wetland linear feature. Aquatic/emergent vegetation presence unknown; dense riparian canopy. Fish presence likely. 8.5 km from nearest known CRLF occurrence; not located within critical habitat unit
YR Tributary 1	Stream, seasonal (Yuba River tributary), south of New Colgate Powerhouse	?	High-gradient stream with significant pools unlikely. Aquatic/emergent vegetation presence unknown; dense riparian canopy. 10.8 km from nearest known CRLF occurrence; not located within critical habitat unit
YR Tributary 2	Stream, seasonal (Yuba River tributary), southeast of New Colgate Powerhouse	?	High-gradient stream with significant pools unlikely. Aquatic/emergent vegetation presence unknown; dense riparian canopy. Fish presence unknown. 10.8 km from nearest known CRLF occurrence; not located within critical habitat unit.
YR Tributary 3	Stream, seasonal (Yuba River tributary), northeast of New Colgate Powerhouse	?	High-gradient stream with significant pools unlikely. Aquatic/emergent vegetation presence unknown; dense riparian canopy. Fish presence unknown. 9.5 km from nearest known CRLF occurrence; not located within critical habitat unit.
YR Tributary 4	Stream, seasonal (Yuba River tributary), northeast of New Colgate Powerhouse	?	High-gradient stream with significant pools unlikely. Aquatic/emergent vegetation presence unknown; dense riparian canopy. Fish presence unknown. 9.4 km from nearest known CRLF occurrence; not located within critical habitat unit.
YR Tributary 5	Stream, seasonal (Yuba River tributary), northeast of New Colgate Powerhouse	?	High-gradient stream with significant pools unlikely. Aquatic/emergent vegetation presence unknown; dense riparian canopy. Fish presence unknown. 9.5 km from nearest known CRLF occurrence; not located within critical habitat unit.

Table 1.2-2. (continued)

Site Number[1, 2]	Habitat Feature/Seasonality/Location	Meets 20-Week Criterion	Description
FC1	Pond, perennial (headwater to French Corral Creek tributary), southeast of New Colgate Powerhouse	Yes[3]	Excavated pond; depth unknown. Mapped by NWI as open water wetland. Emergent vegetation and overhanging shrubs at pond margin. Fish presence unknown. 8.7 km from nearest known CRLF occurrence; not located within critical habitat unit.
FC2	Pond, perennial (headwater to French Corral Creek tributary), southeast of New Colgate Powerhouse	Yes[3]	Excavated pond; depth unknown. Mapped by NWI as open water wetland. Emergent vegetation and overhanging shrubs at pond margin. Fish presence unknown. Fish presence unknown. 12.2 km from nearest known CRLF occurrence; not located within critical habitat unit.
YR1	Pond, perennial (headwater to Yuba River Tributary 2), southeast of New Colgate Powerhouse	Yes[3]	Excavated pond; depth unknown. Patches of emergent vegetation and overhanging shrubs at pond margin. Fish presence unknown. 11.6 km from nearest known CRLF occurrence; not located within critical habitat unit.
DoC2	Pond, perennial (in Dobbins Creek drainage basin), north of New Colgate Powerhouse	Yes[3]	Excavated pond; depth unknown. Mowed grasses at pond edge. Fish presence unlikely. 8.6 km from nearest known CRLF occurrence; not located within critical habitat unit.
DoC4	Pond, perennial (connected to Dobbins Creek tributary), north of New Colgate Powerhouse	Yes[3]	Impoundment; depth unknown. Mapped by NWI as open water wetland. Emergent vegetation and overhanging shrubs at pond margin. Fish presence unknown. 9.0 km from nearest known CRLF occurrence; not located within critical habitat unit.
DoC5	Pond, perennial (in Dobbins Creek drainage basin), north of New Colgate Powerhouse	Yes[3]	Excavated pond; depth unknown. Dense emergent vegetation throughout pond; patches of overhanging shrubs and trees at pond edge. 9.0 km from nearest known CRLF occurrence; not located within critical habitat unit.
DoC7	Pond, perennial (connected to Dobbins Creek tributary), north of New Colgate Powerhouse	Yes[3]	Excavated pond; depth unknown. Patches of emergent vegetation limited to pond margin; patches of overhanging shrubs and trees at pond edge. Fish presence unknown. 9.1 km from nearest known CRLF occurrence; not located within critical habitat unit.
LF1	Pond, seasonal, south of Marysville Road	Yes[3]	Excavated pond; depth unknown. Emergent vegetation limited to pond margin; patches of overhanging shrubs and trees at pond edge. Fish presence unknown. 6.9 km from nearest known CRLF occurrence; not located within critical habitat unit.
NYR Tributary 1	Stream, seasonal (Yuba River tributary), at Marysville Road	?	High-gradient stream with significant pools unlikely. Aquatic/emergent vegetation presence unknown; dense riparian canopy. Fish presence unknown. 5.7 km from nearest known CRLF occurrence; not located within critical habitat unit.
CC2	Pond, perennial, adjoining Cottage Creek mainstem, east of Oregon Hill Road	Yes[3]	Excavated pond; depth unknown. Patches of emergent vegetation at pond margin and patches of aquatic vegetation throughout pond during summer months; dense shrubs overhang pond perimeter. Fish presence likely. 4.3 km from nearest known CRLF occurrence; not located within critical habitat unit.
CC3	Pond, perennial, connected to Cottage Creek mainstem, east of Oregon Hill Road	Yes[3]	Excavated pond; depth unknown. Patches of emergent vegetation cover most of wetland; dense shrubs overhang pond perimeter. Fish presence likely. 4.5 km from nearest known CRLF occurrence; not located within critical habitat unit.
YC1	Wetland, perennial, connected to Yellowjacket Creek mainstem	Yes	Excavated impoundment; depth unknown. Patches of emergent vegetation cover most of wetland; dense shrubs and trees overhang pond perimeter. Fish presence likely. 6.3 km from nearest known CRLF occurrence; not located within critical habitat unit.
New Bullards Bar Tributary (NBB1)	Stream, seasonal (unnamed tributary to New Bullards Bar Reservoir)	?	High gradient stream with significant pools unlikely. Aquatic/emergent vegetation presence unknown; dense riparian canopy. Fish presence unknown. 4.0 km from nearest known CRLF occurrence; not located within critical habitat unit.
Schoolhouse Creek	Stream, perennial, tributary to New Bullards Bar Reservoir	Yes	High gradient stream with significant pools unlikely. Aquatic/emergent vegetation presence unknown; dense riparian canopy. Fish presence likely. 4.1 km from nearest known CRLF occurrence; not located within critical habitat unit.
New Bullards Bar Tributary (NBB2)	Stream, seasonal (unnamed tributary to New Bullards Bar Reservoir)	?	High gradient stream with significant pools unlikely. Aquatic/emergent vegetation presence unknown; dense riparian canopy. Fish presence unknown. 5.4 km from nearest known CRLF occurrence; not located within critical habitat unit.

Table 1.2-2. (continued)

Site Number[1, 2]	Habitat Feature/Seasonality/Location	Meets 20-Week Criterion	Description
New Bullards Bar Tributary (NBB3)	Stream, seasonal (unnamed tributary to New Bullards Bar Reservoir)	?	High gradient stream with significant pools unlikely. Aquatic/emergent vegetation presence unknown; dense riparian canopy. Fish presence unknown. 5.7 km from nearest known CRLF occurrence; not located within critical habitat unit.
New Bullards Bar Tributary (NBB4)	Stream, seasonal (unnamed tributary to New Bullards Bar Reservoir)	?	High gradient stream with significant pools unlikely. Aquatic/emergent vegetation presence unknown; dense riparian canopy. Fish presence unknown. 6.2 km from nearest known CRLF occurrence; not located within critical habitat unit.
New Bullards Bar Tributary (NBB5)	Stream, seasonal (unnamed tributary to New Bullards Bar Reservoir)	?	High gradient stream with significant pools unlikely. Aquatic/emergent vegetation presence unknown; dense riparian canopy. Fish presence unknown. 6.8 km from nearest known CRLF occurrence; not located within critical habitat unit.
New Bullards Bar Tributary (NBB6)	Stream, seasonal (unnamed tributary to New Bullards Bar Reservoir)	?	High gradient stream with significant pools unlikely. Aquatic/emergent vegetation presence unknown; dense riparian canopy. Fish presence unknown. 7.6 km from nearest known CRLF occurrence; not located within critical habitat unit.
New Bullards Bar Tributary (NBB7)	Stream, seasonal (unnamed tributary to New Bullards Bar Reservoir)	?	High gradient stream with significant pools unlikely. Aquatic/emergent vegetation presence unknown; dense riparian canopy. Fish presence unknown. 7.8 km from nearest known CRLF occurrence; not located within critical habitat unit.
New Bullards Bar Tributary (NBB8)	Stream, seasonal (unnamed tributary to New Bullards Bar Reservoir)	?	High gradient stream with significant pools unlikely. Aquatic/emergent vegetation presence unknown; dense riparian canopy. Fish presence unknown. 8.5 km from nearest known CRLF occurrence; not located within critical habitat unit.
New Bullards Bar Tributary (NBB9)	Stream, seasonal (unnamed tributary to New Bullards Bar Reservoir)	?	High gradient stream with significant pools unlikely. Aquatic/emergent vegetation presence unknown; dense riparian canopy. Fish presence unknown. 8.2 km from nearest known CRLF occurrence; not located within critical habitat unit
Bridger Creek	Stream, perennial, tributary to New Bullards Bar Reservoir	Yes	Low to moderate-gradient stream; pools may be present in lower-gradient reaches. Aquatic/emergent vegetation presence unknown; dense riparian canopy. Fish presence likely. 7.8 km from nearest known CRLF occurrence; not located within critical habitat unit.
New Bullards Bar Tributary (NBB10)	Stream, seasonal (unnamed tributary to New Bullards Bar Reservoir),	?	High gradient stream with significant pools unlikely. Aquatic/emergent vegetation presence unknown; dense riparian canopy. Fish presence unknown. 6.9 km from nearest known CRLF occurrence; not located within critical habitat unit.
New Bullards Bar Tributary (NBB11)	Stream, seasonal (unnamed tributary to New Bullards Bar Reservoir)	?	High gradient stream with significant pools unlikely. Aquatic/emergent vegetation presence unknown; dense riparian canopy. Fish presence unknown. 6.4 km from nearest known CRLF occurrence; not located within critical habitat unit.
New Bullards Bar Tributary (NBB12)	Stream, seasonal (unnamed tributary to New Bullards Bar Reservoir)	?	High gradient stream with significant pools unlikely. Aquatic/emergent vegetation presence unknown; dense riparian canopy. Fish presence unknown. 6.1 km from nearest known CRLF occurrence; not located within critical habitat unit.
New Bullards Bar Tributary (NBB13)	Stream, seasonal (unnamed tributary to New Bullards Bar Reservoir	?	High gradient stream with significant pools unlikely. Aquatic/emergent vegetation presence unknown; dense riparian canopy. Fish presence unknown. 5.8 km from nearest known CRLF occurrence; not located within critical habitat unit.
New Bullards Bar Tributary (NBB14)	Stream, seasonal (unnamed tributary to New Bullards Bar Reservoir)	?	High gradient stream with significant pools unlikely. Aquatic/emergent vegetation presence unknown; dense riparian canopy. Fish presence unknown. 5.5 km from nearest known CRLF occurrence; not located within critical habitat unit.
New Bullards Bar Tributary (NBB15)	Stream, seasonal (unnamed tributary to New Bullards Bar Reservoir)	?	Moderate-gradient stream with significant pools unlikely. Aquatic/emergent vegetation presence unknown; dense riparian canopy. Fish presence unknown. 4.7 km from nearest known CRLF occurrence; not located within critical habitat unit.
New Bullards Bar Tributary (NBB16)	Stream, seasonal (unnamed tributary to New Bullards Bar Reservoir)	?	High gradient stream with significant pools unlikely. Aquatic/emergent vegetation presence unknown; dense riparian canopy. Fish presence unknown. 5.7 km from nearest known CRLF occurrence; not located within critical habitat unit.

Table 1.2-2. (continued)

Site Number[1, 2]	Habitat Feature/Seasonality/Location	Meets 20-Week Criterion	Description
New Bullards Bar Tributary (NBB17)	Stream, seasonal (unnamed tributary to New Bullards Bar Reservoir)	?	High gradient stream with significant pools unlikely. Aquatic/emergent vegetation presence unknown; dense riparian canopy. Fish presence unknown. 5.2 km from nearest known CRLF occurrence; not located within critical habitat unit.
New Bullards Bar Tributary (NBB18)	Stream, seasonal (unnamed tributary to New Bullards Bar Reservoir)	?	High gradient stream with significant pools unlikely. Aquatic/emergent vegetation presence unknown; dense riparian canopy. Fish presence unknown. 4.2 km from nearest known CRLF occurrence; not located within critical habitat unit.
New Bullards Bar Tributary (NBB19)	Stream, seasonal (unnamed tributary to New Bullards Bar Reservoir)	?	High gradient stream with significant pools unlikely. Aquatic/emergent vegetation presence unknown; dense riparian canopy. Fish presence unknown. 4.1 km from nearest known CRLF occurrence; not located within critical habitat unit.
New Bullards Bar Tributary (NBB20)	Stream, seasonal (unnamed tributary to New Bullards Bar Reservoir)	?	High gradient stream with significant pools unlikely. Aquatic/emergent vegetation presence unknown; dense riparian canopy. Fish presence unknown. 6.3 km from nearest known CRLF occurrence; not located within critical habitat unit.
MiC3	Pond, perennial, connected to Mill Creek Tributary	Yes[3]	Excavated impoundment; depth unknown. Mapped by NWI as open water wetland. Emergent vegetation limited to pond perimeter; patches of aquatic vegetation in summer months. Dense shrubs and trees overhang pond perimeter. Fish presence unknown. 4.8 km from nearest known CRLF occurrence; not located within critical habitat unit.
MiC4	Pond, perennial, connected to Mill Creek Tributary	Yes[3]	Excavated impoundment; depth unknown. Mapped by NWI as open water wetland. Emergent vegetation limited to pond perimeter; patches of aquatic vegetation in summer months. Dense shrubs and trees overhang pond perimeter. Fish presence unknown. 5.9 km from nearest known CRLF occurrence; not located within critical habitat unit.
New Bullards Bar Tributary (NBB21)	Stream, seasonal (unnamed tributary to New Bullards Bar Reservoir)	?	High gradient stream with significant pools unlikely. Aquatic/emergent vegetation presence unknown; dense riparian canopy. Fish presence unknown. 7.1 km from nearest known CRLF occurrence; not located within critical habitat unit.
PR3	Pond, perennial, located west of Pendola Road	Yes[3]	Excavated pond. Water depth unknown. Emergent vegetation limited to pond margin. Patches of trees overhang pond perimeter. 8.8 km from nearest known CRLF occurrence; not located within critical habitat unit.
New Bullards Bar Tributary (NBB22)	Stream, seasonal (unnamed tributary to New Bullards Bar Reservoir)	?	High gradient stream with significant pools unlikely. Aquatic/emergent vegetation presence unknown; dense riparian canopy. Fish presence unknown. 8 km from nearest known CRLF occurrence; not located within critical habitat unit.
New Bullards Bar Tributary (NBB23)	Stream, seasonal (unnamed tributary to New Bullards Bar Reservoir)	?	High gradient stream with significant pools unlikely. Aquatic/emergent vegetation presence unknown; dense riparian canopy. Fish presence unknown. 8.8 km from nearest known CRLF occurrence; not located within critical habitat unit.
Lost Creek	Stream, perennial, tributary to New Bullards Bar Reservoir	Yes	High gradient stream with significant pools unlikely. Lower gradient near stream headwaters. Aquatic/emergent vegetation presence unknown; dense riparian canopy. Fish presence likely. 10 km from nearest known CRLF occurrence; not located within critical habitat unit.
New Bullards Bar Tributary (NBB24)	Stream, seasonal (unnamed tributary to New Bullards Bar Reservoir)	?	High gradient stream with significant pools unlikely. Aquatic/emergent vegetation presence unknown; dense riparian canopy. Fish presence unknown. 12.2 km from nearest known CRLF occurrence; not located within critical habitat unit.
Quayle Ravine	Stream, perennial, tributary to New Bullards Bar Reservoir	Yes	High gradient stream with significant pools unlikely. Aquatic/emergent vegetation presence unknown; dense riparian canopy. Fish presence likely. 12.4 km from nearest known CRLF occurrence; not located within critical habitat unit.
Slate Creek	Stream, perennial, tributary to New Bullards Bar Reservoir	Yes	Low to moderate-gradient stream; pool habitat likely to be interspersed among riffles. Mapped by NWI as riverine wetland. Aquatic/emergent vegetation presence unknown; dense riparian canopy. Fish presence likely. 13.1 km from nearest known CRLF occurrence; not located within critical habitat unit.

Table 1.2-2. (continued)

Site Number[1, 2]	Habitat Feature/Seasonality/Location	Meets 20-Week Criterion	Description
Deadwood Creek	Stream, perennial, tributary to New Bullards Bar Reservoir	Yes	High gradient stream with significant pools unlikely. Mapped by NWI as palustrine forested wetland linear feature. Aquatic/emergent vegetation presence unknown; dense riparian canopy. Fish presence likely. 13.3 km from nearest known CRLF occurrence; not located within critical habitat unit.
Gophner Ravine (GR1)	Stream, perennial, tributary to New Bullards Bar Reservoir	Yes	High gradient stream with significant pools unlikely. Aquatic/emergent vegetation presence unknown; dense riparian canopy. Fish presence likely. 13.1 km from nearest known CRLF occurrence; not located within critical habitat unit.
Mississippi Creek	Stream, perennial, tributary to New Bullards Bar Reservoir	Yes	High gradient stream with significant pools unlikely. Aquatic/emergent vegetation presence unknown; dense riparian canopy. Fish presence likely. 12.3 km from nearest known CRLF occurrence; not located within critical habitat unit.
New Bullards Bar Tributary (NBB25)	Stream, seasonal (unnamed tributary to New Bullards Bar Reservoir)	?	High gradient stream with significant pools unlikely. Aquatic/emergent vegetation presence unknown; dense riparian canopy. Fish presence unknown. 11.9 km from nearest known CRLF occurrence; not located within critical habitat unit.
Hampshire Creek	Stream, perennial, tributary to New Bullards Bar Reservoir	Yes	High gradient stream with significant pools unlikely. Wetlands at stream headwaters (See HaC2 and 3). Aquatic/emergent vegetation presence unknown; dense riparian canopy. Fish presence likely. 11.4 km from nearest known CRLF occurrence; not located within critical habitat unit.
New Bullards Bar Tributary (NBB26)	Stream, seasonal (unnamed tributary to New Bullards Bar Reservoir)	?	High gradient stream with significant pools unlikely. Aquatic/emergent vegetation presence unknown; dense riparian canopy. Fish presence unknown. 11.1 km from nearest known CRLF occurrence; not located within critical habitat unit.
New Bullards Bar Tributary (NBB27)	Stream, seasonal (unnamed tributary to New Bullards Bar Reservoir)	?	High gradient stream with significant pools unlikely. Aquatic/emergent vegetation presence unknown; dense riparian canopy. Fish presence unknown. 10.9 km from nearest known CRLF occurrence; not located within critical habitat unit.
New Bullards Bar Tributary (NBB28)	Stream, seasonal (unnamed tributary to New Bullards Bar Reservoir)	?	High gradient stream with significant pools unlikely. Aquatic/emergent vegetation presence unknown; dense riparian canopy. Fish presence unknown. 8.6 km from nearest known CRLF occurrence; not located within critical habitat unit.
Empire Creek (EC1)	Stream, perennial, tributary to New Bullards Bar Reservoir	Yes	High gradient stream with significant pools unlikely. Lower-gradient near headwaters. Mapped by NWI as palustrine forested wetland linear feature. Aquatic/emergent vegetation presence unknown; dense riparian canopy. Fish presence likely. 5.7 km from nearest known CRLF occurrence; not located within critical habitat unit.
New Bullards Bar Tributary (NBB29)	Stream, seasonal (unnamed tributary to New Bullards Bar Reservoir)	?	High gradient stream with significant pools unlikely. Aquatic/emergent vegetation presence unknown; dense riparian canopy. Fish presence unknown. 5.6 km from nearest known CRLF occurrence; not located within critical habitat unit.
New Bullards Bar Tributary (NBB30)	Stream, seasonal (unnamed tributary to New Bullards Bar Reservoir)	?	High gradient stream with significant pools unlikely. Aquatic/emergent vegetation presence unknown; dense riparian canopy. Fish presence unknown. 5.1 km from nearest known CRLF occurrence; not located within critical habitat unit.
New Bullards Bar Tributary (NBB32)	Stream, seasonal (unnamed tributary to New Bullards Bar Reservoir)	?	High gradient stream with significant pools unlikely. Aquatic/emergent vegetation presence unknown; dense riparian canopy. Fish presence unknown. 3.1 km from nearest known CRLF occurrence; not located within critical habitat unit.
New Bullards Bar Tributary (NBB33)	Stream, seasonal (unnamed tributary to New Bullards Bar Reservoir)	?	High gradient stream with significant pools unlikely. Aquatic/emergent vegetation presence unknown; dense riparian canopy. Fish presence unknown. 2.9 km from nearest known CRLF occurrence; not located within critical habitat unit.
New Bullards Bar Tributary (NBB34)	Stream, seasonal (unnamed tributary to New Bullards Bar Reservoir)	?	High gradient stream with significant pools unlikely. Aquatic/emergent vegetation presence unknown; dense riparian canopy. Fish presence unknown. 2.8 km from nearest known CRLF occurrence; not located within critical habitat unit.

Table 1.2-2. (continued)

Site Number[1, 2]	Habitat Feature/Seasonality/Location	Meets 20-Week Criterion	Description
New Bullards Bar Tributary (NBB37)	Stream, seasonal (unnamed tributary to New Bullards Bar Reservoir)	?	High gradient stream with significant pools unlikely. Aquatic/emergent vegetation presence unknown; dense riparian canopy. Fish presence unknown. 2.6 km from nearest known CRLF occurrence; not located within critical habitat unit.
New Bullards Bar Tributary (NBB38)	Stream, seasonal (unnamed tributary to New Bullards Bar Reservoir)	?	High gradient stream with significant pools unlikely. Aquatic/emergent vegetation presence unknown; dense riparian canopy. Fish presence unknown. 3.1 km from nearest known CRLF occurrence; not located within critical habitat unit.
New Bullards Bar Tributary (NBB39)	Stream, seasonal (unnamed tributary to New Bullards Bar Reservoir)	?	High gradient stream with significant pools unlikely. Aquatic/emergent vegetation presence unknown; dense riparian canopy. Fish presence unknown. 3.5 km from nearest known CRLF occurrence; not located within critical habitat unit.
New Bullards Bar Tributary (NBB40)	Stream, seasonal (unnamed tributary to New Bullards Bar Reservoir)	?	High gradient stream with significant pools unlikely. Aquatic/emergent vegetation presence unknown; dense riparian canopy. Margin/riparian vegetation unknown. Fish presence unknown. 1.7 km from nearest known CRLF occurrence; within critical habitat unit.
New Bullards Bar Tributary (NBB41)	Stream, seasonal (unnamed tributary to New Bullards Bar Reservoir)	?	High gradient stream with significant pools unlikely. Margin/riparian vegetation unknown. Fish presence unknown. 2.1 km from nearest known CRLF occurrence; not located within critical habitat unit.
LO25	Stream, seasonal (Little Oregon Creek tributary), west of Oregon Hill Road	?	High gradient stream segment with significant pools unlikely. Aquatic/emergent vegetation presence unknown; dense margin/riparian vegetation. Fish presence unknown. 1.1 km from nearest known CRLF occurrence and within critical habitat unit.
LO26	Stream, seasonal (Little Oregon Creek tributary), west of Oregon Hill Road	?	High gradient stream segment with significant pools unlikely. Aquatic/emergent vegetation presence unknown; dense margin/riparian vegetation. Fish presence unknown. 1.2 km from nearest known CRLF occurrence and within critical habitat unit.
LO27	Stream, seasonal (Little Oregon Creek tributary), west of Oregon Hill Road	?	High gradient stream segment with significant pools unlikely. Aquatic/emergent vegetation presence unknown; dense margin/riparian vegetation. Fish presence unknown. 1.4 km from nearest known CRLF occurrence and within critical habitat unit.
BB09	Stream, seasonal (Burnt Bridge Creek tributary), west of Oregon Hill Road	?	High gradient stream segment with significant pools unlikely. Aquatic/emergent vegetation presence unknown; dense margin/riparian vegetation. Fish presence unknown. 1.3 km from nearest known CRLF occurrence; not located within critical habitat unit.
BB10	Stream, seasonal (Burnt Bridge Creek tributary), west of Oregon Hill Road	?	High gradient stream segment with significant pools unlikely. Aquatic/emergent vegetation presence unknown; dense margin/riparian vegetation. Fish presence unknown. 1.7 km from nearest known CRLF occurrence; not located within critical habitat unit.
OC1	Pond, perennial, located east of Oregon Creek in Celestial Valley.	Yes[3]	Excavated pond; depth unknown. Dense emergent vegetation at pond margin and patches of aquatic vegetation throughout pond during summer months; small patches of trees at pond perimeter. Fish presence unlikely. 9.5 km from nearest known CRLF occurrence; not located within critical habitat unit.
OC3	Pond, perennial, located east of Oregon Creek in Celestial Valley.	?	Excavated pond; depth unknown. Dense emergent vegetation throughout pond; patches of shrubs around pond perimeter. Fish presence unlikely. 9.6 km from nearest known CRLF occurrence; not located within critical habitat unit.
Grizzly Gulch	Stream, perennial, tributary to Oregon Creek upstream of Log Cabin Diversion Dam	Yes	Moderate-gradient stream; pools may be present in lower-gradient segments. Aquatic/emergent vegetation presence unknown; dense riparian canopy. Fish presence likely. 10.6 km from nearest known CRLF occurrence; not located within critical habitat unit.
MYR1	Pond, perennial, located east of Oregon Creek in Celestial Valley.	Yes[3]	Excavated pond; depth unknown. Emergent vegetation limited to pond margin; mowed grasses around pond perimeter. Fish presence unlikely. 13.2 km from nearest known CRLF occurrence; not located within critical habitat unit.

Table 1.2-2. (continued)

Site Number[1, 2]	Habitat Feature/Seasonality/Location	Meets 20-Week Criterion	Description
MYR Tributary 2	Stream, perennial, tributary to Middle Yuba River upstream of Our House Diversion Dam	Yes	High gradient stream with significant pools unlikely. Aquatic/emergent vegetation presence unknown; dense riparian canopy. Fish presence likely. 15.6 km from nearest known CRLF occurrence; not located within critical habitat unit.
MYR Tributary 3	Stream, perennial, tributary to Middle Yuba River upstream of Our House Diversion Dam	Yes	High gradient stream with significant pools unlikely. Aquatic/emergent vegetation presence unknown; dense riparian canopy. Fish presence likely. 17.1 km from nearest known CRLF occurrence; not located within critical habitat unit.
MYR Tributary 4	Stream, perennial, tributary to Middle Yuba River upstream of Our House Diversion Dam	Yes	High gradient stream with significant pools unlikely. Aquatic/emergent vegetation presence unknown; dense riparian canopy. Fish presence likely. 16.8 km from nearest known CRLF occurrence; not located within critical habitat unit.
MYR Tributary 5	Stream, perennial, tributary to Middle Yuba River upstream of Our House Diversion Dam	Yes	High gradient stream with significant pools unlikely. Aquatic/emergent vegetation presence unknown; dense riparian canopy. Fish presence likely. 17.4 km from nearest known CRLF occurrence; not located within critical habitat unit.

Key: CRLF = California red-legged frog; km = kilometer; m = meter; NWI = National Wetlands Inventory

[1] Land ownership within 1.6 km of project boundary: Green = Forest Service (US Department of Agriculture, Forest Service); Pink = Private; Purple = YCWA (Yuba County Water Agency); Orange = Forest Service/YCWA combined ownership; Brown = Forest Service/Private combined ownership; Pale Yellow = BLM (US Department of the Interior, Bureau of Land Management)/Private combined ownership; Gray = Forest Service/YCWA/Private combined ownership; No color = YCWA/Private combined ownership

[2] Sites within the Project Boundary are highlighted in bold text

[3] Evidence of inundation visible on mid to late summer aerial photos from GoogleEarth Pro (2012)

1.2.1 CC1

CC1 is a portion of Cottage Creek, a perennial stream that occurs within 1.6 km of New Bullards Bar Reservoir. CC1 is located 1.6 km west of New Bullards Bar Reservoir, and 1.2 km outside of the FERC Project Boundary on Plumas National Forest land. CC1 is 4.1 km from the nearest known CRLF occurrence, and is located outside of the United States Fish and Wildlife Service (USFWS) critical habitat unit. National Wetlands Inventory (NWI) data for the area (USFWS 2011) depict a palustrine, forested, semi-permanent/seasonal/saturated (PFOY), linear wetland feature associated with Cottage Creek starting from Oregon Hill Road downstream to site CC4 (discussed below).

The site was assessed on March 2, 2012; and a follow-up visit was conducted on June 1, 2012 to confirm presence or absence of stream flow. CC1 at bank full is approximately 0.6 m wide, and the bank full depth was estimated to be 0.3 m. The stream gradient averaged 2 percent. Pools within the stream measured approximately 0.9 m x 1.5 m, with a maximum depth of 0.6 m. Non-pool habitat was low-gradient riffle. Flowing water was present in the stream on June 1, 2012. The substrate was cobble and gravel. The banks were moderate gradient and consisted of boulder and soil. Emergent vegetation was absent; western

dogwood and tanoak (*Lithocarpus densiflorus*) saplings were overhanging. No fish or amphibians were observed; however, largemouth bass reportedly occur in a downstream pond (site CC-4) (D. Teater, USFS, pers. comm. March 2, 2012) and no barriers to fish passage were observed between CC1 and CC4. Surrounding upland is second-growth, mixed coniferous/deciduous forest.

1.2.2 CC4

CC4 is an impounded wetland located on the mainstem of Cottage Creek in conifer forest, approximately 0.3 km west of New Bullards Bar Reservoir within the FERC Project Boundary on YCWA and on the Plumas National Forest. CC4 is 4.5 km from the nearest known CRLF occurrence and is located outside of the USFWS critical habitat unit. National Wetlands Inventory (NWI) data for the area (USFWS 2011) depict CC4 as a palustrine, open water, artificially flooded, intermittently exposed (POWKZ) wetland feature.

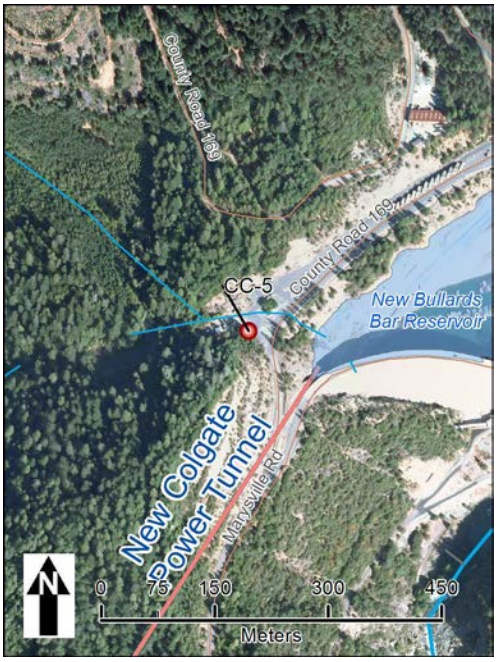
The site was assessed on March 2, 2012 accompanied by D. Teater, USFS District Fisheries Biologist. CC4 is an excavated and impounded pond that discharges through an outlet drain on the east side of the feature. The site covers approximately 2,000 m^2. The maximum observed water depth was visually estimated to be over 3 m; bank full depth was estimated to be at least 4 m. Some large woody material occurs within the wetted perimeter, particularly on the west end of the feature. Substrate consists of detritus, leaf litter, sandy loam, and cobbles.

Emergent vegetation in the northwest portion of the wetland consists of dense cattail (*Typha* sp.); the east portion of the wetland had areas of open water interspersed with soft rush (*Juncus effusus*) at the pond margins. Scattered Himalayan blackberry was overhanging. Over-story canopy cover of pine (*Pinus* sp.) and oak (*Quercus* sp.) is present around the entire site. No fish or amphibians were observed. However, largemouth bass reportedly occur (D. Teater, USFS, pers. comm., March 2, 2012). Barry (2002) surveyed the site, which he designated "East Cottage Creek Pond," in 2001 and 2002, finding Sierra newts (*Taricha sierrae*) and Sierra treefrogs (*Pseudacris sierra*) and concluded that the site may be "too dark, too deep, and too cold to support red-legged frogs." Surrounding upland is mixed conifer/deciduous forest.

1.2.3 CC5

CC5 is a 30-m-long section of Cottage Creek, a perennial stream that occurs within 1.6 km of New Bullards Bar Reservoir. CC5 is located 85 m west of New Bullards Bar Reservoir within the FERC Project Boundary on YCWA property. CC5 is 4.6 km from the nearest known CRLF

occurrence, and is located outside of the USFWS critical habitat unit. This site is not depicted as a wetland on NWI maps of the area.



The site was assessed on March 2, 2012 accompanied by D. Teater, Forest Service. A follow-up visit was conducted on June 1, 2012, which confirmed stream flow on this date. CC5 at bank full is approximately 3.7 m wide, and the bank full depth was estimated to be 0.7 m. CC5 discharges through a culvert under Emerald Cove Marina Road. The stream gradient averaged 1 percent. Pools within the stream measured approximately 3 m x 4.6 m, with a maximum depth of 0.6 m. Non-pool habitat was low-gradient riffle located downstream of a culvert. The substrate was cobble, boulder, and leaf litter. The left bank was steep boulder, and the right bank was moderate gradient and consisted of cobble and soil. Aquatic vegetation, emergent vegetation, and overhanging vegetation were absent. The over-story canopy cover along the banks consists of Pacific madrone (*Arbutus menziesii*) and alder (*Alnus* sp.). No fish or amphibians were observed. Surrounding upland consists of a paved parking lot and facilities associated with Emerald Cove Marina to the east and second-growth, mixed coniferous/deciduous forest to the west.

1.2.4 CR1

CR1 is a portion of Chute Ravine, a perennial tributary to the Yuba River that is located 2.2 km southwest of New Bullards Bar Reservoir, and within a portion of the FERC project boundary associated with Marysville Road on YCWA Land. Chute Ravine is 5.8 km from the nearest known CRLF occurrence, and is located outside of the USFWS critical habitat unit. This site is not depicted as a wetland on NWI maps of the area.

The site was assessed on March 2, 2012 accompanied by D. Teater, Forest Service. A follow-up visit was conducted on June 1, 2012, which confirmed stream flow on this date. CR1 at bank full is approximately 6 m wide, and the bank full depth was estimated to be 1 m. The stream gradient averaged 2 percent. Pools within the stream measured approximately 5 m x 3 m, with a maximum depth of 1 m. Non-pool habitat was low-gradient riffle located downstream of a culvert. The substrate was cobble, boulder, and gravel. The banks are steep, with rip-rap and roadside fill

on the left bank and soil and cobble on the right bank. No emergent vegetation and overhanging vegetation are present at the site. The over-story canopy cover consists of tanoak, willows (*Salix* sp.), and alders. No fish or amphibians were observed. Surrounding upland consists of residential development to the north and second-growth, mixed coniferous/deciduous forest to the south.

1.2.5 LF2

LF2 is an impounded wetland associated with an unnamed tributary to Lake Francis that occurs within 1.6 km of the New Colgate Power Tunnel. The site is approximately 4.1 km southwest of New Bullards Bar Reservoir and 971 m outside of the FERC Project Boundary on private land. LF2 is 6.9 km from the nearest known CRLF occurrence and is located outside of the USFWS critical habitat unit. NWI maps of the area (USFWS 2011) depict LF2 as a palustrine, open water, artificially flooded, intermittently exposed (POWKZ) wetland feature.

The site was assessed on March 2, 2012 from Marysville Road accompanied by D. Teater, Forest Service. A follow-up visit was conducted on June 5, 2012, which confirmed the presence of surface water on this date. LF2 appears to be a mine tailing pond with no outlet. The site covers approximately 600 m^2; maximum depth was visually estimated to be at least 1 m. Substrate is unknown. Emergent vegetation occurred only along the pond margin, consisting of cattail and soft rush. Dense overhanging vegetation included Himalayan blackberry and willows. Over-story canopy cover of pine stands is present at the eastern half of the site. Surrounding upland is patches of conifer saplings and grassland.

1.2.6 LF3

LF3 is a portion of a small ephemeral stream, a tributary to Lake Francis that occurs within 1.6 km of the New Colgate Power Tunnel. LF3 is located 3.9 km southwest of New Bullards Bar Reservoir and 494 m outside of the FERC Project Boundary on private land. LF3 is 6.9 km from the nearest known CRLF occurrence, and is located outside of the USFWS critical habitat unit. This site is not depicted as a wetland on NWI maps of the area.

The site was assessed on March 2, 2012. LF3 at bank full is approximately 1 m wide, and the bank full depth was estimated to be 0.15 m. LF3 drains into a culvert at a road crossing. The stream gradient averaged 2.5 percent. Pools within the stream measured approximately 0.6 m x 1.2 m, with a maximum depth of 0.15 m. Non-pool habitat was high-gradient riffle. The substrate was cobble and gravel. The banks were high gradient and consisted of soil with some cobble. Aquatic vegetation and emergent vegetation were absent; Himalayan blackberry and giant chain fern (*Woodwardia fimbriata*) were overhanging. No fish or amphibians were observed. Surrounding upland is second-growth, mixed coniferous/deciduous forest.

1.2.7 YR2

YR2 is a portion of an unnamed tributary of Yuba River that occurs within 1.6 km of the New Colgate Powerhouse. YR2 is located west of the New Colgate Powerhouse, 7.8 km southwest of New Bullards Bar Reservoir and 100 m outside of the FERC Project Boundary on YCWA property. YR2 is 10.7 km from the nearest known CRLF occurrence, and is located outside of the USFWS critical habitat unit. This site is not depicted as a wetland on NWI maps of the area.

The site was assessed on March 2, 2012. A follow-up visit was conducted on May 23, 2012, which confirmed stream flow on this date. YR2 at bank full is approximately 1.5 m wide, and the bank full depth was estimated to be 0.3 m. Signs of scour and sediment transport were observed at the site; however, the stream classification of this tributary is unknown. The stream gradient averaged from 3 to 5 percent. Pools within the stream measured approximately 1 m x 1 m, with a maximum depth of 0.05 m. Non-pool habitat was high-gradient riffle with small plunge pools. The substrate was boulder, cobble, and sand. The banks were steep and consisted of boulder. Emergent vegetation in the channel was sparse and consisted of small patches of soft rush and sedges (*Carex* sp.). Denser patches of soft rush were overhanging the channel above top-of-bank, as well as Himalayan blackberry and giant chain fern. No fish or amphibians were observed. Surrounding upland is second-growth, mixed coniferous/deciduous forest.

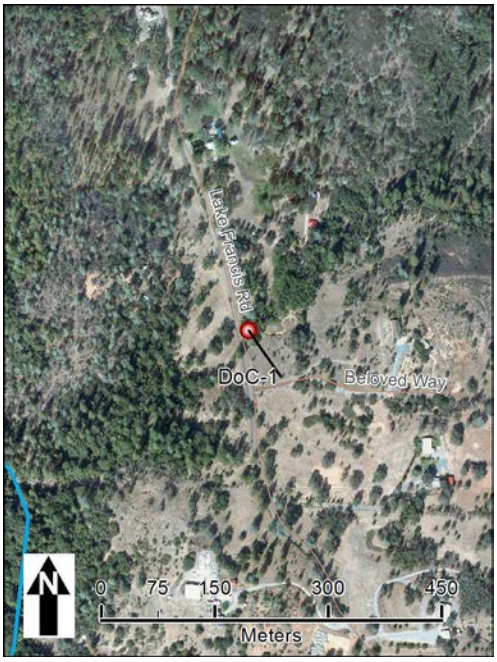
1.2.8 YR3

YR3 is a seasonal stock pond located that occurs within 1.6 km of the New Colgate Powerhouse. YR3 is approximately 7.2 km southwest of New Bullards Bar Reservoir and 322 m outside of the FERC Project Boundary on private land. YR3 is 9.9 km from the nearest known CRLF occurrence and is located outside of the USFWS critical habitat unit. This site is not depicted as a wetland on NWI maps of the area.

The site was assessed on March 2, 2012 from Lake Francis Road; a follow-up visit was conducted on May 29, 2012, which confirmed the absence of surface water on this date. YR3 appears to be an excavated pond receiving seasonal runoff and with no outlet. The site covers approximately 25 m^2; maximum depth was visually estimated to be at least 0.3 m; substrate is soil. Grazed grasses were present around the pond margin. Surrounding upland was agricultural grassland.

1.2.9 DoC1

DoC1 is a portion of an intermittent unnamed tributary to Dobbins Creek that occurs within 1.6 km of the New Colgate Power Tunnel. DoC1 is located 6.3 km southwest of New Bullards Bar Reservoir and 1.5 km outside of the FERC Project Boundary on private property. DoC1 is 8.5 km from the nearest known CRLF occurrence, and is located outside of the USFWS critical habitat unit. This site is not depicted as a wetland on NWI maps of the area.



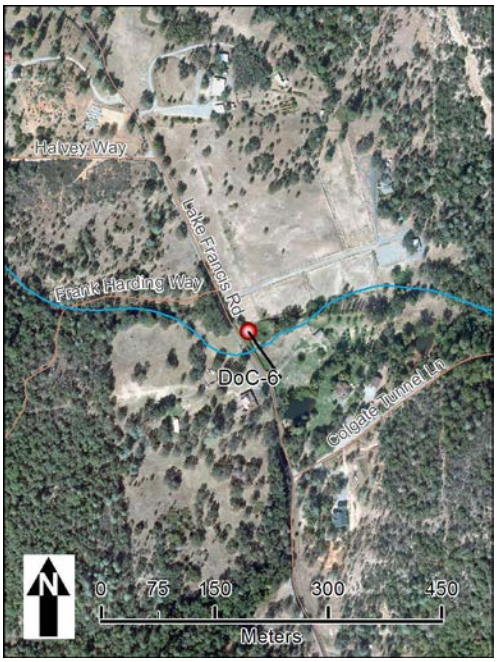
The site was assessed on March 2, 2012 from Lake Francis Road. A follow-up visit was conducted on May 23, 2012, which confirmed the absence of stream flow on this date. DoC1 at bank full is approximately 1.5 m wide, and the bank full depth was estimated to be 0.2 m. The stream gradient averaged from 3 to 5 percent. Pools within the stream measured approximately 3 m x 1 m, with a maximum depth of 0.35 m. Non-pool habitat was low-gradient riffle on the downstream side of the pool. The substrate was mud, and the banks were low gradient. Emergent vegetation below top-of-bank was sparse and limited to the stream bank; unidentified grasses were predominant. No fish or amphibians were observed. Surrounding upland is open oak/grass woodland.

1.2.10 DoC3

DoC3 is a perennial pond located east of Dobbins Creek that occurs within 1.6 km of the New Colgate Power tunnel. DoC3 is approximately 6.4 km west of New Bullards Bar Reservoir and 1.2 km outside of the FERC Project Boundary on private land. DoC3 is 8.7 km from the nearest known CRLF occurrence and is located outside of the USFWS critical habitat unit. This site is not depicted as a wetland on NWI maps of the area.

The site was assessed on March 2, 2012 from Lake Francis Road. A follow-up visit was conducted on May 23, 2012, which confirmed the presence of surface water throughout the site on this date. DoC3 appears to be an excavated pond with no outlet. The site covers approximately 450 m^2 with unknown maximum depth and substrate. Mowed grasses dominated the pond margin. Surrounding upland is open oak/grass woodland on the east side and grazed grasses on the west side.

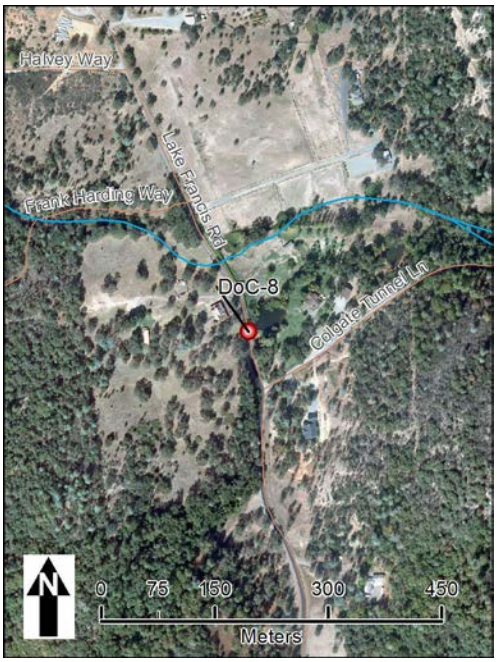
1.2.11 DoC6



DoC6 is a small intermittent tributary to Dobbins Creek that occurs within 1.6 km the New Colgate Power Tunnel. DoC6 is located 6.6 km southwest of New Bullards Bar Reservoir and 679 m outside of the FERC Project Boundary on private property. DoC6 is 9.1 km from the nearest known CRLF occurrence, and is located outside of the USFWS critical habitat unit. This site is not depicted as a wetland on NWI maps of the area.

The site was assessed on March 2, 2012 from Lake Francis Road. A follow-up visit was conducted on May 23, 2012, which confirmed the absence of stream flow on this date. DoC6 at bank full is approximately 1.5 m wide, and the bank full depth was estimated to be 0.2 m. The stream gradient averaged 2 percent. Pools within the stream measured approximately 1.5 m x 2 m, with a maximum depth of 0.22 m. Non-pool habitat was low-gradient riffle and slow moving runs and glides. The substrate was silt and soil. The banks were low gradient and consisted of soil with some Himalayan blackberry. Emergent vegetation was negligible in the stream channel; vegetation on the streambank and above top-of-bank consisted of soft rush and grasses. No fish or amphibians were observed. Surrounding upland is open oak woodland and pasture.

1.2.12 DoC8

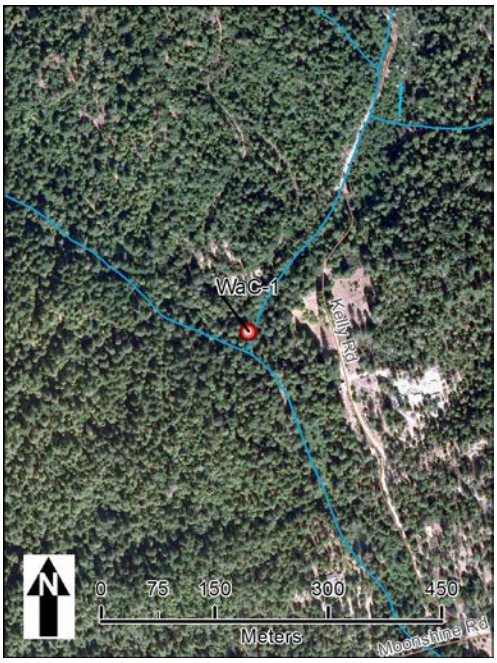


DoC8 is a perennial unnamed tributary to Dobbins Creek that occurs within 1.6 km of the New Colgate Power Tunnel. DoC8 is located 6.7 km southwest of New Bullards Bar Reservoir and 707 m outside of the FERC Project Boundary on private property. DoC8 is 9.2 km from the nearest known CRLF occurrence, and is located outside of the USFWS critical habitat unit. This site is not depicted as a wetland on NWI maps of the area.

The site was assessed on March 2, 2012 from Lake Francis Road. A follow-up visit was conducted on May 23, 2012, which confirmed stream flow on this date. DoC8 originates from a stock pond to the east. DoC8 at bank full is approximately 3 m wide, and the bank full depth was estimated to be between 0.25 m and 0.35 m. DoC8 discharges through Lake Francis Road and likely drains into Dobbins Creek. The

stream gradient averaged from 1 to 2 percent. Pools within the stream measured approximately 1 m x 2.5 m, with a maximum depth of 0.2 m. Non-pool habitat was low-gradient riffle. The substrate was sand/mud and gravel with some cobble on the west side. The banks were low gradient and consisted of soil and boulder. Emergent vegetation was present in the stream channel on the east side of Lake Francis Road, and consisted of consists of cattail and cress (*Rorippa* sp.). Small patches of cress were present in the stream channel on the west side of Lake Francis Road. Scattered alder and Himalayan blackberry were overhanging, primarily on the channel segment on the west side of Lake Francis Road. No fish or amphibians were observed. Surrounding upland is open oak/grass woodland.

1.2.13 WaC1



WaC1 is a portion of Wagner Creek, a perennial stream that occurs within 1.6 km of New Bullards Bar Reservoir. WaC1 is located 2.1 km southeast of New Bullards Bar Reservoir and 1.5 km outside of the FERC Project Boundary on the Tahoe National Forest. WaC1 is 6.5 km from the nearest known CRLF occurrence, and is located outside of the USFWS critical habitat unit. NWI maps of the area (USFWS 2011) depict a linear palustrine, forested, semi-permanent/seasonal/saturated (PFOY) wetland feature associated with the site and extending from near Moonshine Road downstream to Moonshine Creek.

The site was assessed on March 5, 2012 accompanied by Amy Lind, USFS Hydroelectric Coordinator; D. Teater USFS District Fisheries Biologist; Amber Villalobos, California State Water Resources Control Board (SWRCB) Environmental Scientist; and Brianne Noble, SWRCB Environmental Scientist. A follow-up visit was conducted on June 20, 2012, which confirmed stream flow on this date. WaC1 at bank full is approximately 1.5 m wide, and the bank full depth was estimated to be 0.25 m. WaC1 eventually drains into Moonshine Creek, approximately 30 m east of the site. The stream gradient averaged 1 percent. Pools within the stream measured approximately 1 m x 2 m, with a maximum depth of 0.3 m. Non-pool habitat was low-gradient riffle. The substrate was sand, cobble, and boulder. The banks were high gradient and consisted of soil. Emergent vegetation was absent; sword fern (*Polystichum munitum*) and tanoak were overhanging. No fish or amphibians were observed; however, no barriers were observed between the site and the confluence of Moonshine Creek. Surrounding upland is second-growth, mixed coniferous/deciduous forest.

1.2.14 MoC1

MoC1 is a portion of Moonshine Creek, a perennial stream that occurs within 1.6 km of New Bullards Bar Reservoir. MoC1 is located 1.8 km southeast of New Bullards Bar Reservoir and 1.4 km outside the FERC Project Boundary on the Tahoe National Forest. MoC1 is 6.5 km from the nearest known CRLF occurrence, and is located outside of the USFWS critical habitat unit. NWI maps of the area (USFWS 2011) depict a palustrine, forested, semi-permanent/seasonal/saturated (PFOY) wetland feature associated with Moonshine Creek.

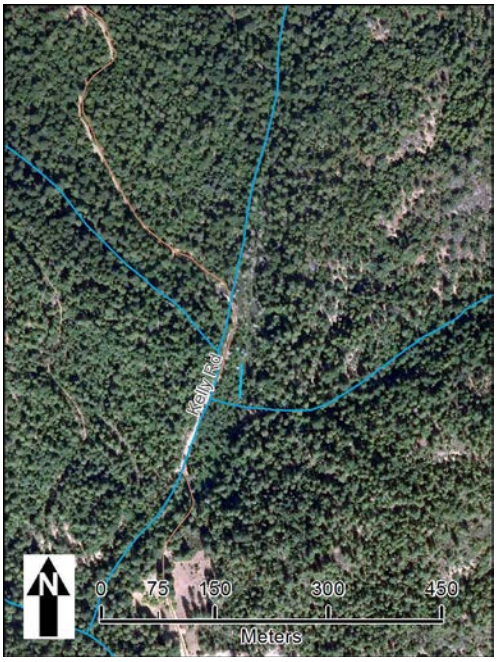
The site was assessed on March 5, 2012 accompanied by Forest Service and SWRCB agency staff listed under site WaC1 above. A follow-up visit was conducted on June 20, 2012, which confirmed stream flow on this date. MoC1 at bank full is approximately 1 to 2 m wide, and the bank full depth was estimated to be 0.25 m. MoC1 flows along the east side of the wetland identified as MoC3 (discussed below). The stream gradient averaged 1 percent. Pools within the stream measured approximately 1.5 m x 4 m, with a maximum depth of 0.5 m. Non-pool habitat was low-gradient riffle. The substrate was mud/soil and leaf litter/detritus. Some large woody material occurs within the wetted perimeter. The banks were low gradient and consisted of soil. Moderately dense emergent vegetation consisting of cattail and bulrush (*Scirpus* sp.) was growing in the stream channel; and patches of duckweed (*Lemna* sp.) were also present. Tanoak and Himalayan blackberry were overhanging the left bank. Cattail, rushes, and scattered willow associated with the MoC3 wetland were overhanging right bank. An aggregation of numerous Sierra newts in amplexus and several individual Sierra newts were observed at the site. No fish were observed. Surrounding upland is second-growth, mixed coniferous/deciduous forest.

1.2.15 MoC2

MoC2 is a 60-meter-long impounded section of mainstem Moonshine Creek that occurs within 1.6 km of New Bullards Bar Reservoir. MoC2 is located 2.0 km southeast of New Bullards Bar Reservoir and 1.5 km outside of the FERC Project Boundary on the Tahoe National Forest. MoC2 is 6.5 km from the nearest known CRLF occurrence, and is located outside of the USFWS critical habitat unit. NWI maps of the area (USFWS 2011) depict a palustrine, forested, semi-permanent/seasonal/saturated (PFOY) wetland feature associated with Moonshine Creek.

The site was assessed on March 5, 2012 accompanied by Forest Service and SWRCB agency staff listed under site WaC1 above. A follow-up visit was conducted on June 20, 2012, which confirmed stream flow on this date. MoC2 at bank full is approximately 6.5 m wide, and the bank full depth was estimated to be 1.5 m. MoC2 is located downstream of MoC1, originating from a culvert under Kelly Road. The stream segment is impounded by an approximately 3-meter-tall concrete dam located 60 m downstream of Kelly Road. The stream gradient averaged 1 percent. The site is one large pool measuring 5 m x 60 m, with a maximum depth of 1.5 m. Non-pool habitat was absent. The substrate was silt and sand. The banks were low gradient and consisted of soil. The channel was sparsely vegetated with water-purslane (*Ludwigia palustris*), mainly in shallower pockets of water; willows, Himalayan blackberry, giant chain fern, and sword fern overhanging. An aggregation of numerous Sierra newts in amplexus was observed in a small pool approximately 1 m deep located near an undercut bank, and other individual Sierra newts were observed throughout the site. No fish were observed in the impoundment. Surrounding upland is second-growth, mixed coniferous/deciduous forest.

1.2.16 MoC3



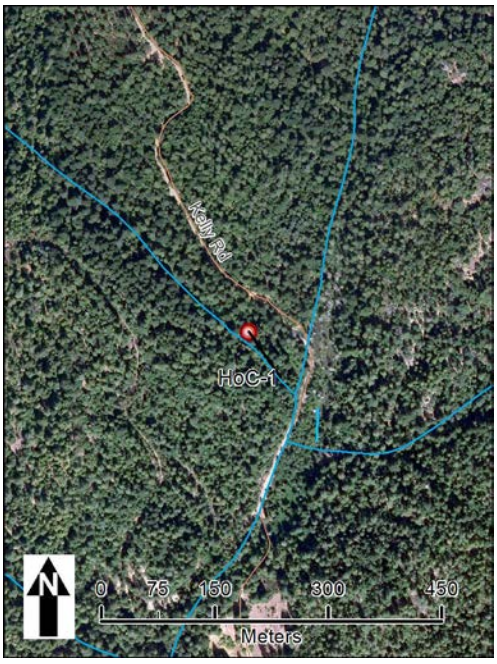
MoC3 is a wetland that adjoins the right bank of mainstem Moonshine Creek (MoC1), approximately 1.8 km southeast of New Bullards Bar Reservoir and 1.4 km outside of the FERC Project Boundary on the Tahoe National Forest, located east of Kelly Road. MoC3 is 6.5 km from the nearest known CRLF occurrence and is located outside of the USFWS critical habitat unit. NWI maps of the area (USFWS 2011) depict a palustrine, forested, semi-permanent/seasonal/saturated (PFOY) wetland feature associated with Moonshine Creek.

The site was assessed on March 5, 2012 accompanied by Forest Service and SWRCB agency staff listed under site WaC1 above. A follow-up visit was conducted on June 20, 2012, which confirmed limited inundation in deeper depressions on this date. MoC3 is a large depressional wetland adjoining the right bank of the mainstem of Moonshine Creek (MoC1). It receives groundwater discharge and some surface discharge from Moonshine and Hornswoggle creeks. Hummock-depression microtopography is common throughout the wetland; the hummocks were generally saturated whereas the

depressions held water during the site visit. Kelly Road adjoins the west side of the wetland. The site covers approximately 4,000 m^2. The maximum observed water depth was to be 0.15 m in the depressions. Relatively dense cattail, bulrush, and soft rush were growing throughout the wetland; scattered willows and cedars were also growing in the wetland, mainly on higher hummocks. Himalayan blackberry overhung portions of the perimeter; there was no overhanging vegetation growing on the west side of the wetland where Kelly Road is located. The over-story canopy cover consists of pine and tanoak. The substrate was mud and soil. Sierra newts were observed at the site. No fish were observed. Surrounding upland is second-growth, mixed coniferous/deciduous forest.

1.2.17 HoC1

HoC1 is a portion of Hornswoggle Creek, a perennial tributary to Moonshine Creek that occurs within 1.6 km of New Bullards Bar Reservoir. HoC1 is located 1.7 km southeast of New Bullards Bar Reservoir and 1.3 km outside the FERC Project Boundary on the Tahoe National Forest. HoC1 is 6.4 km from the nearest known CRLF occurrence, and is located outside of the USFWS critical habitat unit. This site is not depicted as a wetland on NWI maps of the area.



The site was assessed on March 5, 2012 accompanied by Forest Service and SWRCB agency staff listed under site WaC1 above. A follow-up visit was conducted on June 20, 2012, which confirmed stream flow on this date. HoC1 at bank full is approximately 1 m wide, and the bank full depth was estimated to be 0.2 m. The stream discharges into MoC3 via multiple small channels near the stream "mouth" at Kelly Road. The stream gradient averaged 1 percent. Pools within the stream measured approximately 2.5 m x 4 m, with a maximum depth of 0.3 m. Non-pool habitat was low-gradient riffle. The substrate was predominantly cobble and sand in the upstream portion of the assessed creek channel, and mud and sand towards the mouth of the creek. The banks were low gradient and consisted of soil. Some LARGE WOODY MATERIAL occurs within the wetted perimeter. The upstream portion of the assessed stream lacked emergent or aquatic vegetation; scattered senesced horsetail (*Equisetum* sp.) was observed in the mouth of the creek; dense horsetail was growing in the mouth of the creek during the follow-up visit. Willows, Himalayan blackberry, western dogwood (*Cornus nuttallii*), sword fern, and tanoak were overhanging. The over-story canopy cover consists of pine and tanoak. No fish or amphibians were observed. Surrounding upland is second-growth, mixed coniferous/deciduous forest.

1.2.18 WiC1

WiC1 is a portion of Willow Creek, a perennial stream that discharges into New Bullards Bar Reservoir. WiC1 is located 1.2 km east of New Bullards Bar Reservoir and 1.2 outside of the FERC Project Boundary on the Tahoe National Forest. WiC1 is 10.3 km from the nearest known CRLF occurrence, and is located outside of the USFWS critical habitat unit. NWI maps of the area (USFWS 2011) depict a palustrine, forested, semi-permanent/seasonal/saturated (PFOY) wetland feature associated with Willow Creek.

The site was assessed on March 5, 2012 accompanied by Forest Service and SWRCB agency staff listed under site WaC1 above. WiC1 at bank full is approximately 10 m wide, and the bank full depth was estimated to be from 1 to 2 m. The stream gradient averaged 2 to 3 percent. Pools within the stream measured approximately 4 m x 8 m, with a maximum depth of 1.5 m. Non-pool habitat was low-gradient riffle and high-gradient riffle. The substrate was bedrock and cobble. The banks were low gradient up to the bank full width and then become high gradient above, consisting of sand. Aquatic and emergent vegetation was absent; scattered alders were overhanging the banks. The over-story canopy cover consisted of pine, oak, and madrone. No fish or amphibians were observed; however, no known barriers occur between the site and New Bullards Bar Reservoir. Surrounding upland is second-growth, mixed coniferous/deciduous forest.

1.2.19 MiC1

MiC1 is an impounded tributary to Mill Creek that occurs within 1.6 km of New Bullards Bar Reservoir. MiC1 is approximately 1 km north of New Bullards Bar Reservoir and 920 m outside of the FERC Project Boundary on private land. MiC1 is 5.4 km from the nearest known CRLF occurrence and is located outside of the USFWS critical habitat unit. NWI maps of the area (USFWS 2011) depict MiC1 as a palustrine, open water, artificially flooded, intermittently exposed (POWKZ) wetland feature associated with Mill Creek.

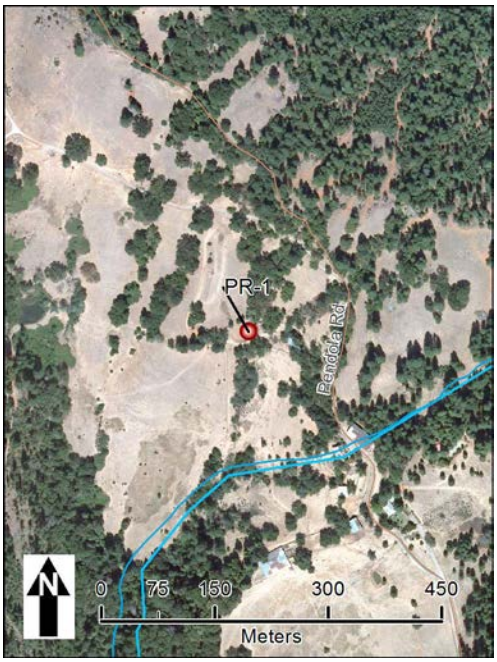
The site was assessed on March 5, 2012 from Baker Road, accompanied by Forest Service and SWRCB agency staff listed in the WaC1 description above. MiC1 is a pond that is impounded by Baker Road and discharges through a culvert under the road. The site covers approximately 200 m^2. The maximum observed water depth was estimated to be 0.2 m. The substrate was mud/soil and leaf litter/detritus. Emergent vegetation was mainly limited to the margins of the impoundment, and consisted of scouring rush (*Equisetum hyemale*) and scattered cattail. Numerous live willow runners also occurred. Himalayan blackberry and willow were overhanging the pond perimeter. The over-story canopy cover consisted of willow, madrone, and pine. No fish or amphibians were observed. Surrounding upland is second-growth, mixed coniferous/deciduous forest.

1.2.20 MiC2

MiC2 is a large impounded wetland that occurs within 1.6 km of New Bullards Bar Reservoir. MiC2 is located on the mainstem of Mill Creek, approximately 878 m north of New Bullards Bar Reservoir and 795 m outside of the FERC Project Boundary on private land. MiC2 is 5.3 km from the nearest known CRLF occurrence and outside of the USFWS critical habitat unit. National Wetlands Inventory (NWI) data for the area (USFWS 2011) depict MiC1 as a palustrine, open water, artificially flooded, intermittently exposed (POWKZ) wetland feature associated with Mill Creek.

The site was assessed on March 5, 2012 from Baker Road, accompanied by Forest Service and SWRCB agency staff listed under site WaC1 above. MiC2 is a large wetland formed out of the mainstem of Mill Creek and impounded by a berm on the south side of the site. The site covers approximately 7,700 m^2. The south portion of the feature is mostly open water and was visually estimated to have a maximum depth of at least a meter; the north portion of the feature is not as deeply inundated and is likely less than 0.5m at maximum depth. Dense cattail surrounds the margin of the open water feature and becomes denser to the north. Dense rushes, grasses, and willows were growing throughout the north portion of the wetland. The over-story canopy cover consisted of willow, madrone, and pine. The substrate was mud/soil and leaf litter/detritus. No fish or amphibians were observed. Surrounding upland is second-growth, mixed coniferous/deciduous forest.

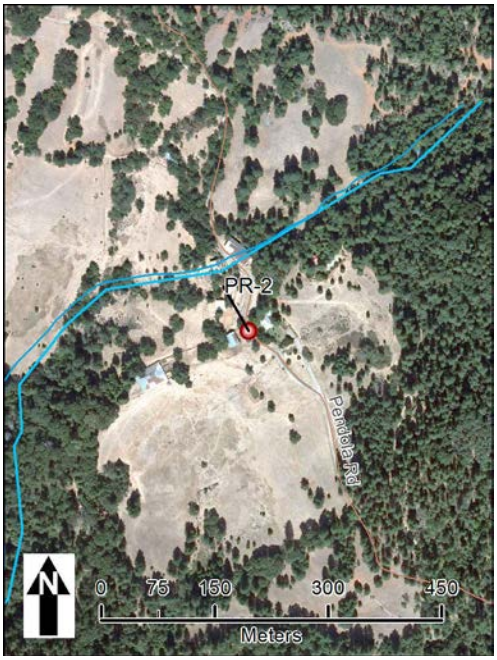
1.2.21 PR1



PR1 is a perennial stock pond that occurs within 1.6 km of New Bullards Bar Reservoir. PR1 is located west of Pendola Road, approximately 1.2 km north of New Bullards Bar Reservoir and 1.1 km outside of the FERC Project Boundary on private land. PR1 is 9 km from the nearest known CRLF occurrence and outside of the USFWS critical habitat unit. This site is not depicted as a wetland on NWI maps of the area.

The site was assessed on March 5, 2012 from Pendola Road. PR1 does not appear to have a surface inlet or outlet. The site covers approximately 400 m^2 with a maximum depth visually estimated to be up to 1 m. Substrate is unknown. Dense grasses and scattered cattail were growing around the margin of the pond; overhanging vegetation is absent. Himalayan blackberry and willow were overhanging the pond perimeter. No fish or amphibians were observed. Surrounding upland is oak woodland and cleared grassland.

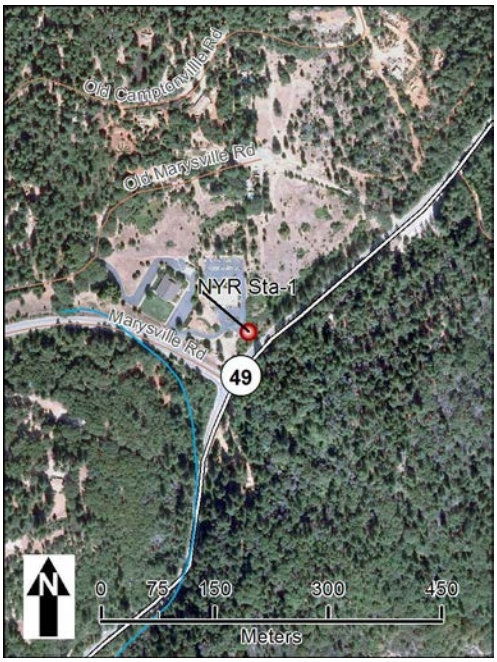
1.2.22 PR2



PR2 is a perennial stock pond that occurs within 1.6 km of New Bullards Bar Reservoir. PR2 is located west of Pendola Road, approximately 1 km north of New Bullards Bar Reservoir and 897 m outside of the FERC Project Boundary on private land. PR2 is 9 km from the nearest known CRLF occurrence and outside of the USFWS critical habitat unit. This site is not depicted as a wetland on NWI maps of the area.

The site was assessed on March 5, 2012 from Pendola Road. The site contains a small outlet that drains into a small ephemeral ditch, but does not appear to have a surface inlet. The site covers approximately 100 m^2; maximum depth was visually estimated to be 1m. Emergent vegetation consisted of soft rush and grasses limited to the pond margin, and overhanging vegetation was absent. The substrate was mud/soil. No fish or amphibians were detected; mallard ducks were observed in the pond. Surrounding upland is mainly grassland with patches of oak trees.

1.2.23 NYR Sta1



NYR Sta1 is an ephemeral wetland that occurs within 1.6 km of New Bullards Bar Reservoir. NYR Sta1 is located north of State Highway 49, approximately 1.5 km east of New Bullards Bar Reservoir and 328 m outside of the FERC Project Boundary on the North Yuba River Ranger Station property. NYR Sta1 is 9.1 km from the nearest known CRLF occurrence and outside of the USFWS critical habitat unit. This site is not depicted as a wetland on NWI maps of the area.

The site was assessed on March 6, 2012. NYR Sta1 is a narrow wetland bounded by Highway 49 and the North Yuba Ranger Station parking lot. The site drains into a culvert at the road crossing. The site covers approximately 20 m^2. The maximum observed water depth was estimated to be 0.1 m. Within the wetland, scattered grasses and soft rush are present. Willows and Himalayan blackberry overhang the entire wetland, but are rooted upslope of the wetland. The substrate was mud/soil and leaf litter/detritus. No fish or amphibians were observed. Surrounding upland consists of a paved parking lot and facilities associated with the North Yuba Ranger Station.

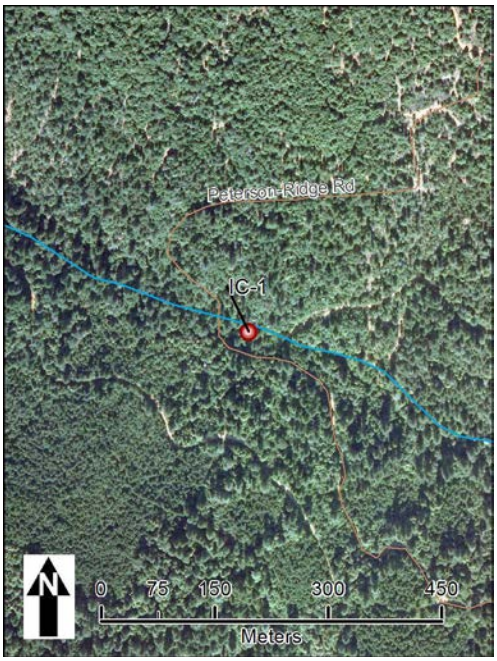
1.2.24 NBB31

NBB31 is a portion of an unnamed perennial tributary to New Bullards Bar Reservoir. NBB31 is located 1.1 km west of New Bullards Bar Reservoir and 1.1 km outside of the FERC Project Boundary on the Plumas National Forest. NBB31 is 4.5 km from the nearest known CRLF occurrence, and is located outside of the USFWS critical habitat unit. This site is not depicted as a wetland on NWI maps of the area.

The site was assessed on March 5, 2012. NBB31 at bank full is approximately 3 m wide, and the bank full depth was estimated to be 0.4 m. The stream gradient averaged 1 to 2 percent. Pools within the stream measured approximately 2.5 m x 2.5 m, with a maximum depth of 0.6 m. Non-pool habitat was low-gradient riffle. The substrate was gravel and sand. The banks were moderate to high gradient consisting of soil. Some small and large woody debris are present in the channel. Aquatic and emergent vegetation was absent; willows and sword fern overhang along the banks. The over-story canopy cover consisted of pine, western dogwood, and bigleaf

maple (*Acer macrophyllum*). No fish or amphibians were observed; however, no known barriers occur between NBB31 and New Bullards Bar Reservoir. Surrounding upland is second-growth, mixed coniferous/deciduous forest.

1.2.25 IC1

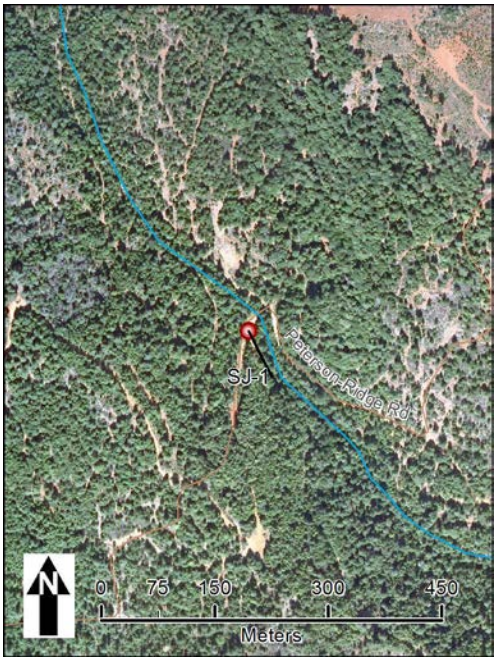


IC1 is a portion of Indian Creek, a perennial stream that discharges to New Bullards Bar Reservoir. IC1 is located 1.4 km west of New Bullards Bar Reservoir within the FERC Project Boundary on the Plumas National Forest. IC1 is 4.0 km from the nearest known CRLF occurrence, and is located outside of the USFWS critical habitat unit. NWI maps of the area (USFWS 2011) depict a palustrine, forested, semi-permanent/seasonal/saturated (PFOY) wetland feature associated with Indian Creek.

The site was assessed on March 6, 2012. IC1 at bank full is approximately 8 m wide, and the bank full depth was estimated to be between 0.5 m and 1.5 m. The stream gradient averaged 2 percent. IC1 is located downstream of a culvert at Indian Road. IC1 includes a large plunge pool downstream of a culvert under Forest Service Road 19N03, which measured approximately 8 m x 11 m, with a maximum depth of 1.5 m. Non-pool habitat was low-gradient riffle with some high-gradient riffle. The substrate was boulder and cobble. The banks were high gradient consisting of soil around the culvert and changed to moderate gradient downstream. Some small and large woody debris are present in the channel. Aquatic and emergent vegetation was absent; willows and dogwood were overhanging along the banks. The over-story canopy cover consisted of pine, alder, and dogwood. No fish or amphibians were observed; however, there are no known barriers to fish between IC1 and New Bullards Bar Reservoir. Barry (2002) identified the large plunge pool at IC1 as a feature that may "offer sporadic 'forest pool' spawning habitat." Surrounding upland is second-growth, mixed coniferous/deciduous forest.

1.2.26 SJC1

SJC1 is a portion of a tributary Slapjack Creek, a perennial stream that discharges to New Bullards Bar Reservoir. SJC1 is located 1.3 km west of the north arm of New Bullards Bar Reservoir and 1.3 km outside of the FERC Project Boundary on private property. SJC1 is 6.5 km from the nearest known CRLF occurrence, and is located outside of the USFWS critical habitat unit. This site is not depicted as a wetland on NWI maps of the area.



The site was assessed on March 6, 2012 from Peterson Ridge Road. SJC1 at bank full is approximately 2.5 m wide, and the bank full depth was estimated to be 0.2 m. The stream gradient averaged 3 to 5 percent. SJC1 includes a plunge pool located downstream of a culvert under Peterson Ridge Road, which measured approximately 2.5 m x 2.5 m, with unknown maximum depth. Non-pool habitat was low-gradient riffle and high-gradient riffle. The substrate was boulder and cobble. The banks were high gradient consisting of soil. Some small woody debris was present in the channel. Aquatic and emergent vegetation was absent; western dogwood was overhanging along the banks. The over-story canopy cover consisted of alder, tanoak, madrone, and maple. One adult Sierra newt was observed at the site. No fish were observed; however, there are no known barriers to fish between SJC1 and New Bullards Bar Reservoir. Surrounding upland is second-growth, mixed coniferous/deciduous forest.

1.2.27 HaC1

HaC1 is a perennial wetland adjoining a perennial tributary of Hampshire Creek, which discharges to New Bullards Bar Reservoir. HaC1 is approximately 1.6 km west of the north arm of New Bullards Bar Reservoir and 1.6 m outside of the FERC Project Boundary on private property and the Plumas National Forest. HaC1 is 12.2 km from the nearest known CRLF occurrence and within the USFWS critical habitat unit. This site is not depicted as a wetland on NWI maps of the area.

The site was assessed on March 6, 2012. HaC1 is the northern portion of a large depressional wetland bisected by an old logging road. A tributary of Hampshire Creek runs through the wetland on the upstream side of the road. The site covers approximately 5,500 m^2. The maximum observed water depth was estimated to be 0.8 meter. Small and large woody debris occur within the wetland. Dense emergent vegetation was growing throughout inundated portions of the wetland and consisted of soft rush and bulrush. Alder and conifer saplings were overhanging the perimeter of the wetland. The substrate was mud and organic soil. No amphibians or fish were observed; however, there are no known barriers to fish between SJC1 and New Bullards Bar Reservoir. Surrounding upland is second-growth, mixed coniferous/deciduous forest.

1.2.28 HaC2

HaC2 is a perennial wetland adjoining the mainstem of Hampshire Creek, located approximately 1.6 km west of the north arm of New Bullards Bar Reservoir and 1.6 km outside of the FERC Project Boundary on private property and the Plumas National Forest. HaC2 is 12.1 km from the nearest known CRLF occurrence and outside of the USFWS critical habitat unit. This site is not depicted as a wetland on NWI maps of the area.

The site was assessed on March 6, 2012. HaC2 is the southern portion of a large depressional wetland bisected by an old logging road. A small creek runs through the wetland on the downstream side of the road crossing. The site covers approximately 7,000 m^2. The maximum observed water depth was estimated to be 0.8 meter. Small and large woody debris occur within the wetland. Dense emergent vegetation was found growing throughout the wetland, including areas with inundation, and consisted mainly of soft rush and bulrush. Alder and willow were overhanging the perimeter of the wetland. The substrate was mud and organic soil. Surrounding upland is second-growth, mixed coniferous/deciduous forest.

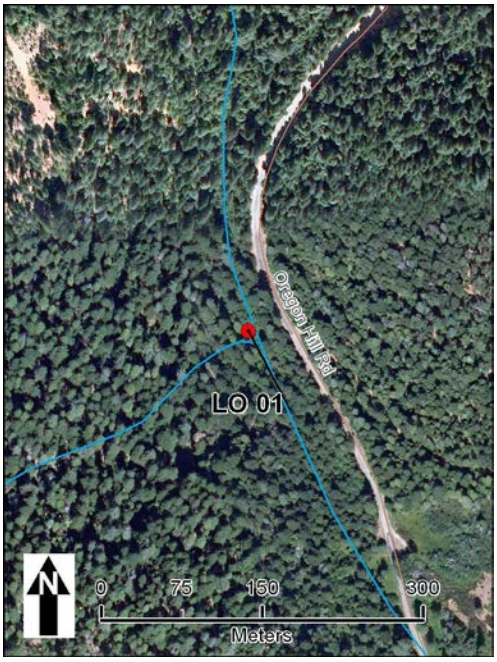
1.2.29 HaC3A

HaC3A is an ephemeral wetland located approximately 1.6 km west of the north arm of New Bullards Bar Reservoir and 1.5 km outside of the FERC Project Boundary on the Plumas National Forest. HaC3 is 12.8 km from the nearest known CRLF occurrence and within the USFWS critical habitat unit. This site is not depicted as a wetland on NWI maps of the area.

The site was assessed on March 6, 2012. HaC3 is a slope wetland that receives groundwater discharge mainly from the north. The wetland slope averaged 5%; inundation was primarily present in small scour channels throughout the wetland. The site covers approximately 270 m^2. The maximum observed water depth was estimated to be 0.1 meter. Soft rush and bulrush were present throughout the wetland, including inundated areas; small individual pine saplings were also present in the wetland. Pines and patches of willows were overhanging the perimeter of the wetland. The substrate was mud and soil. No

amphibians or fish were observed. Surrounding upland is second-growth, mixed coniferous/deciduous forest.

1.2.30 LO1

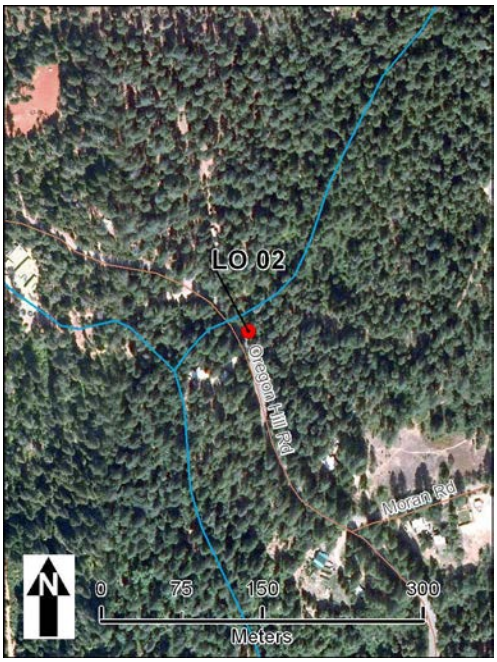


LO1 is a 20-m-long section of the perennial mainstem of Little Oregon Creek, located approximately 30 m west of Oregon Hill Road, 1.2 km west-northwest of New Bullards Bar Reservoir, and 1.0 km outside of the FERC Project Boundary on the Plumas National Forest. LO1 is 384 m from the nearest known CRLF occurrence and within the USFWS critical habitat unit. NWI maps of the area (USFWS 2011) depict a palustrine, forested, semi-permanent/seasonal/saturated (PFOY), linear wetland feature along the entire length of the mainstem of Little Oregon Creek, including this site.

The site was assessed on November 16, 2011. LO1 is upstream of LO14, LO20, LO18, and LO10. The bank full width was estimated to be 8 m, and the bank full depth was estimated to be 1.2 m. The stream gradient was 1 percent. One large pool was present, measuring approximately 6 m x 10 m, with a maximum depth of 0.6 m. Non-pool habitat was riffle. The substrate was sand, silt, gravel and cobble. Large woody material, comprised of recently downed bigleaf maple and tanoak trees, was abundant in the channel. The banks were low gradient and consisted of boulder and soil. Emergent vegetation was absent; western dogwood and scattered Himalayan blackberry were overhanging. No fish or amphibians were observed; however, fish are known to be present in Little Oregon Creek. Surrounding upland is second-growth, mixed coniferous/deciduous forest.

1.2.31 LO2

LO2 is a 5-m-long section of an unnamed perennial left bank tributary of Little Oregon Creek, located at a crossing of Oregon Hill Road, 1.6 km west of New Bullards Bar Reservoir, and 1.5 km outside of the FERC Project Boundary on private land. LO2 is 996 m from the nearest known CRLF occurrence and within the USFWS critical habitat unit. NWI maps of the area (USFWS 2011) depict a palustrine, forested, semi-permanent/seasonal/saturated (PFOY), linear wetland feature along the entire length of this tributary, including this site.



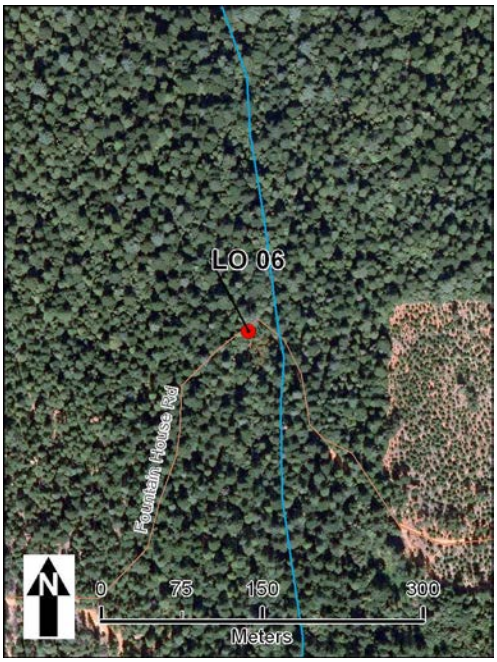
The site was examined on October 19, and formally assessed on November 15, 2011. LO2 is in the same drainage as, but downstream of, LO6. The bank full width was estimated to be 5 m, and the bank full depth was estimated to be 1.2 m. The stream gradient was 1 percent. One large plunge pool was present downstream of a culvert under Oregon Hill Road; the pool measured approximately 5 m x 5 m, with a maximum depth of 1 m. The pool is partially impounded by an artificial weir. Non-pool habitat was riffle. The substrate was silt and sand with some cobble near the stream bank. The banks were low gradient and consisted of boulder and soil. Emergent vegetation was absent; western dogwood was overhanging. No fish or amphibians were observed; however, fish are known to be present in the mainstem of Little Oregon Creek. Surrounding upland is second-growth, mixed coniferous/deciduous forest.

1.2.32 LO3

LO3 is a 10-m-long section of an unnamed perennial left bank tributary of Little Oregon Creek, located at a crossing of Oregon Hill Road, 1.3 km west of New Bullards Bar Reservoir, and 1.2 km outside of the FERC Project Boundary on private land. LO3 is 695 m from the nearest known CRLF occurrence and within the USFWS critical habitat unit. The site is not depicted as a wetland on NWI maps of the area.

The site was examined on October 19 and formally assessed on November 16, 2011. The bank full width was estimated to be 1.5 m, and the bank full depth was estimated to be 0.9 m. The stream gradient was 1 percent. One pool was present upstream of Oregon Hill Road, measuring approximately 2 m x 3 m, with a maximum depth of 0.6 m. Non-pool habitat was riffle. The substrate was silt and sand with some cobbles. The banks were low gradient, minimally incised and consisted of silt. Scattered unidentifiable emergent vegetation was present; young pine trees (probably *Pinus ponderosa*) and bigleaf maple saplings were overhanging. No fish or amphibians were observed; however, fish are known to be present in the mainstem of Little Oregon Creek. Surrounding upland is mixed coniferous/deciduous forest.

1.2.33 LO6

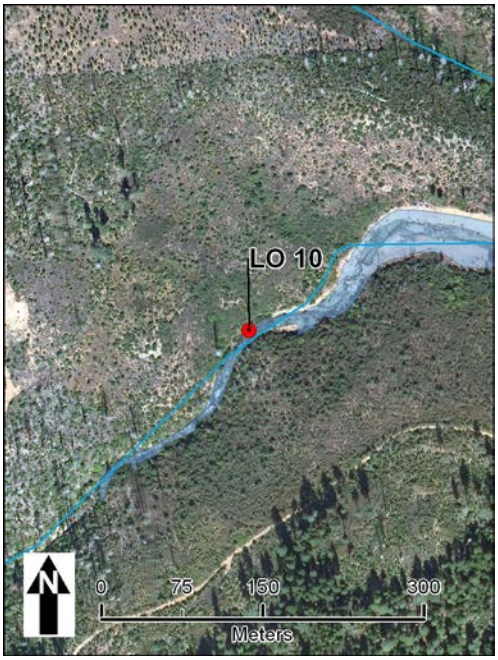


LO6 is a 15-m-long section of an unnamed perennial left bank tributary Little Oregon Creek, located at a crossing of Fountain House Road, 1.2 km west of New Bullards Bar Reservoir, and 1.1 km from the FERC Project Boundary on private land and the Plumas National Forest. LO3 is 695 m from the nearest known CRLF occurrence and within the USFWS critical habitat unit. NWI maps of the area (USFWS 2011) depict a palustrine, forested, semi-permanent/seasonal/saturated (PFOY), linear wetland feature along the entire length of the tributary, including this site.

The site was examined on October 19 and formally assessed on November 15, 2011. LO6 is in the same drainage as, but upstream of, LO2. The bank full width was estimated to be 3 - 4 m, and the bank full depth was estimated to be 0.9 m. The stream gradient was 1 percent. One plunge pool was present downstream of a culvert under Fountain House Road; the pool measured approximately 4 m x 2 m, with a maximum depth of 0.3 m. Non-pool habitat was riffle. The substrate was silt and sand with some cobbles and boulders. The banks were moderately steep and consisted of boulder and soil. Emergent vegetation was absent; western dogwood, oak and bigleaf maple were overhanging. No fish or amphibians were observed; however, fish are known to be present in the mainstem of Little Oregon Creek. Surrounding upland is second-growth, mixed coniferous/deciduous forest.

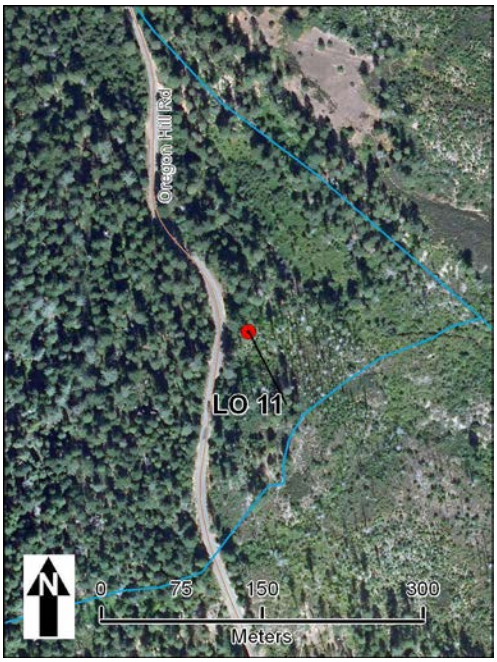
1.2.34 LO10

LO10 is a 10-m-long section of the perennial mainstem of Little Oregon Creek, located within the New Bullard's Bar Reservoir Boundary at Moran Cove, within the FERC Project Boundary on the Plumas National Forest. LO10 is 854 m from the nearest known CRLF occurrence, and is within the USFWS critical habitat unit. NWI maps of the area (USFWS 2011) depict a palustrine, forested, semi-permanent/seasonal/saturated (PFOY), linear wetland feature along the mainstem of Little Oregon Creek, including this site.



The site was assessed on November 16, 2011. Little Oregon Creek flows into New Bullards Bar Reservoir; LO10 is downstream of LO1, LO14, LO20, and LO18. The bank full width was estimated to be 7 m, and the bank full depth was 1.8 m. The stream gradient was approximately 3 percent. One large pool was present, measuring approximately 5 m x 7 m, with a maximum depth of 1.1 m. Non-pool habitat was riffle. The substrate was bedrock, boulder, and cobble. The banks were steep bedrock. Scattered Indian rhubarb (*Darmera peltata*) and small-fruited bulrush (*Scirpus microcarpus*) were emergent; scattered alder was overhanging. No fish or amphibians were observed; however, fish are known to be present in Little Oregon Creek. Surrounding upland is early successional, shrub-stage vegetation regenerating from a 1999 fire.

1.2.35 LO11

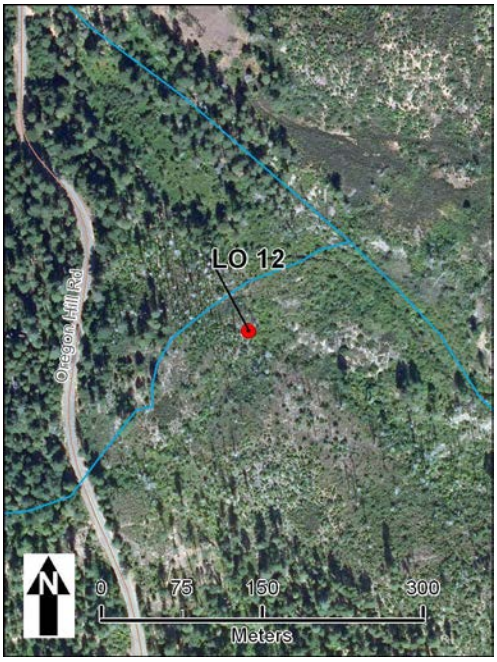


LO11 is a palustrine emergent wetland, located in conifer forest, approximately 20 m east of Oregon Hill Road, 673 m west of New Bullards Bar Reservoir, and 513 m outside of the FERC Project Boundary on the Plumas National Forest. LO11 is 247 m from the nearest known CRLF occurrence and within the USFWS critical habitat unit. This site is not depicted as a wetland on NWI maps of the area.

The site was examined on April 5, 2011; the site assessment is based on field photographs taken on that date. LO11 appears to be an irregular, shallow, closed depression covering an area of at least 40 m^2; however, the site dimensions and topography were obscured by abundant large woody debris, including recent tree falls, which completely covered parts of the site. The maximum observed water depth was 0.2 m. The site appeared to be fed by precipitation and seeps originating near the base of the road prism. The site, where not covered by woody debris, was dominated by giant chain fern; standing water was not evident in these areas. However, standing water was observed at the location of a small patch of sedge or small-fruited bulrush, and was noted in other several places under woody debris. Although maximum water depth under the woody debris was not determined, standing water may persist until early or mid summer. Substrate was not observable because of woody debris and dense vegetation. No amphibians were observed. The wetland has no surface water connectivity to Little Oregon Creek, so fish

access is not possible. Surrounding upland habitat is early successional, shrub-stage vegetation regenerating from a 1999 fire.

1.2.36 LO12



LO12 is a palustrine emergent wetland located between Oregon Hill Road and Little Oregon Creek, 547 m west of New Bullards Bar Reservoir, and 444 m outside of the FERC Project Boundary on the Plumas National Forest. LO12 is 350 m from the nearest known CRLF occurrence and within the USFWS critical habitat unit. This site is not depicted as a wetland on NWI maps of the area.

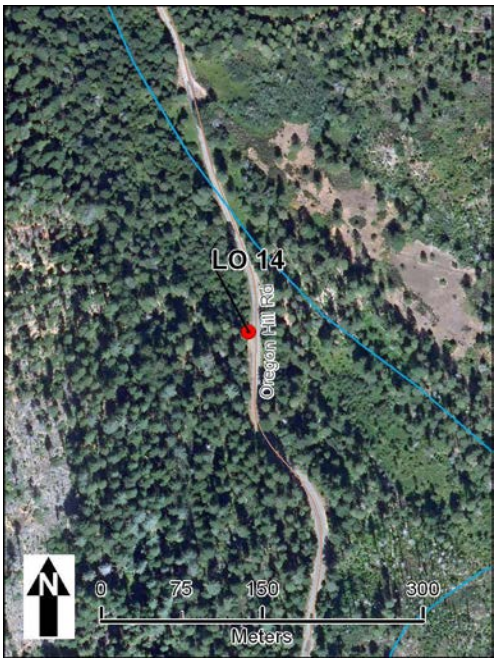
The site was examined on October 20, 2011 and formally assessed on November 15, 2011. LO12 is associated with an irregular, shallow depression, which appears to be formed from mine tailings. Based on vegetation described below, the site likely holds water until late summer. At the time of October and November visits, there was no surface water, but the water table was near the surface. The site covers approximately 52 m^2. The maximum observed water depth was 0.03 m; bank full depth was estimated to be 0.2 m. Substrate was comprised of sandy loam, and large woody material was present throughout the wetland. The site is densely covered with emergent common cattail (*Typha latifolia*) and willows. No amphibians were observed. The wetland has no surface water connectivity to Little Oregon Creek, so fish access is not possible. Surrounding upland habitat is early successional, shrub-stage vegetation regenerating from a 1999 fire.

1.2.37 LO13

LO13 is a 5-m-long section of an unnamed perennial right bank tributary of Little Oregon Creek, located at a crossing of Oregon Hill Road, 728 m west of New Bullards Bar Reservoir, and 297 m outside of the FERC Project Boundary on the Plumas National Forest. LO13 is 468 m from the nearest known CRLF occurrence and within the USFWS critical habitat unit. The site is not depicted as a wetland on NWI maps of the area.

The site was examined on October 20, 2011 and formally assessed on November 15, 2011. The bank full width was estimated to be 1.5 m, and the bank full depth was estimated to be 1.5 m. The stream gradient was less than 1 percent. One plunge pool was present downstream of a culvert under Oregon Hill Road; the pool measured approximately 1.5 m x 3 m, with a maximum depth of 0.5 m. Non-pool habitat was riffle. The substrate was sand with some cobbles at the streambank. The right bank was undercut, and the left bank was moderately steep and consisted of sand and large cobbles. Emergent vegetation was absent; Himalayan blackberry and bigleaf maple were overhanging. No amphibians were observed; one 10-inch unidentified fish was seen in the plunge pool. Surrounding upland is second-growth, mixed coniferous/deciduous forest.

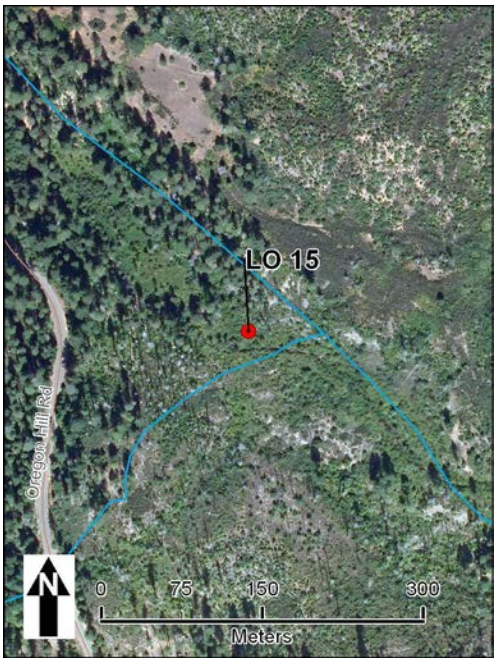
1.2.38 LO14



LO14 is a 10-m-long section of the perennial mainstem of Little Oregon Creek, located at a crossing of Oregon Hill Road, 810 m west of New Bullards Bar Reservoir, and 694 m outside of the FERC Project Boundary on the Plumas National Forest. LO14 is 81 m from the nearest known CRLF occurrence and within the USFWS critical habitat unit. NWI maps of the area (USFWS 2011) depict a palustrine, forested, semi-permanent/seasonal/saturated (PFOY), linear wetland feature along the mainstem of Little Oregon Creek, including this site.

The site was examined on October 20, 2011 and formally assessed on November 14, 2011. The bank full width was estimated to be 7 m, and the bank full depth was estimated to be 2.1 m. The stream gradient was less than 1 percent. A large mid-channel pool was present downstream of three culverts under Oregon Hill Road; the pool measured approximately 6 m x 6 m, with a maximum depth of 0.6 m. Non-pool habitat was riffle. The substrate was bedrock, cobble and sand. The left bank was moderately steep road embankment, the right bank was undercut. Emergent vegetation was absent; western dogwood, alder and bigleaf maple were overhanging. No amphibians or fish were observed; however, fish are known to be present in Little Oregon Creek. Surrounding upland is second-growth, mixed coniferous/deciduous forest.

1.2.39 LO15



LO15 is a palustrine emergent wetland located on the edge of conifer forest and scrub shrub approximately 529 m west of New Bullards Bar Reservoir and 429 m outside of the FERC Project Boundary on the Plumas National Forest. LO15 is 291 m from the nearest known CRLF occurrence and within the USFWS critical habitat unit. This site is not depicted as a wetland on NWI maps of the area.

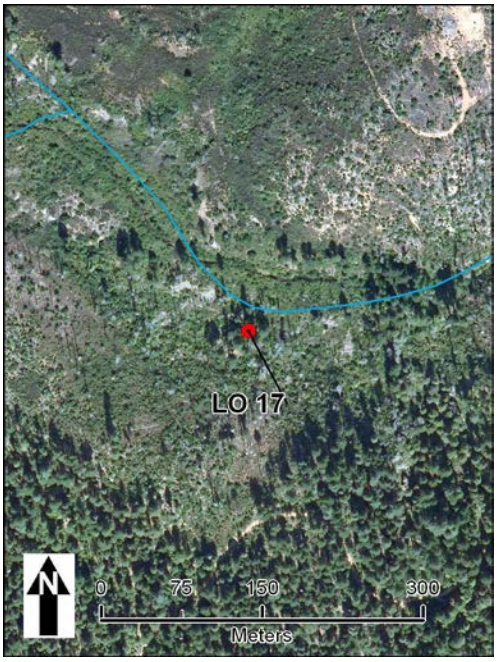
The site was assessed on November 14, 2011. LO15 is a shallow depression formed from mine tailings north of the mainstem of Little Oregon Creek. Water from LO15 seeps to Little Oregon Creek, but there is no channel connection between the two features. The site covers approximately 255 m^2. The maximum observed water depth was 0.15 m; bank full depth was estimated to be 0.3 m. Small downed wood occurs within the wetted perimeter. Substrate consists of detritus, leaf litter, and mud/sand and is about 0.6 m deep. Emergent vegetation included very dense, small-fruited bulrush, as well as brooklime (*Veronica* sp.), scouring rush, giant horsetail (*Equisetum telmateia*), cress (*Rorippa* sp.), pennyroyal (*Mentha* sp.), and soft rush. Willow, alder, and Himalayan blackberry were overhanging. No amphibians were observed; fish access is not possible. Surrounding upland is mixed conifer/deciduous forest and early successional, shrub-stage vegetation regenerating from a 1999 fire.1999 fire.

1.2.40 LO16

LO16 is a palustrine emergent wetland located on the edge of conifer forest and scrub shrub approximately 499 m west of New Bullards Bar Reservoir and 392 m outside of the FERC Project Boundary on private property. LO16 is 286 m from the nearest known CRLF occurrence and within the USFWS critical habitat unit. This site is not depicted as a wetland on NWI maps of the area.

The site was assessed on November 14, 2011. LO16 is an irregularly-shaped shallow depression formed from mine tailings north of Little Oregon Creek; there is no defined channel connection between the two features. The site covers approximately 725 m^2. The maximum observed water depth was 0.1 m; bank full depth was estimated to be 0.25 m. Some large woody material occurred within the wetted perimeter. Substrate consisted of detritus, leaf litter, and mud/sand. Emergent vegetation was very dense and included small-fruited bulrush, soft rush, slough sedge (*Carex obnupta*), spike-rush (*Eleocharis* sp.), and common cattail. Willow is overhanging. No amphibians were observed; fish access is not possible. Surrounding upland is mixed conifer/deciduous forest early successional, shrub-stage vegetation regenerating from a 1999 fire.

1.2.41 LO17

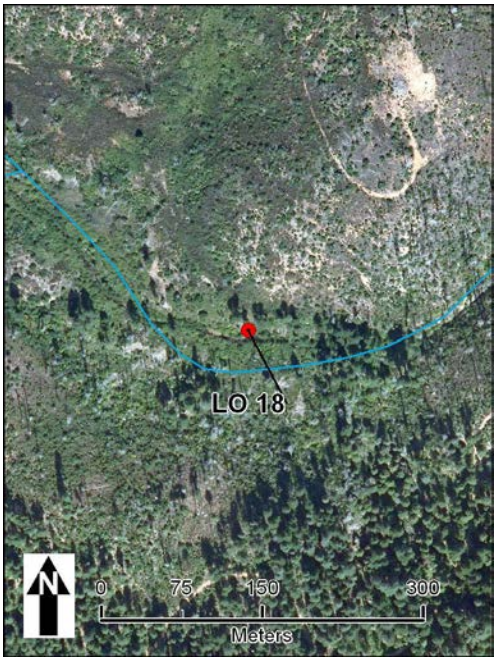


LO17 is a palustrine emergent wetland located in conifer forest approximately 308 m west of New Bullards Bar Reservoir and 193 m outside of the FERC Project Boundary on private property. LO17 is 602 m from the nearest known CRLF occurrence and within the USFWS critical habitat unit. This site is not depicted as a wetland on NWI maps of the area.

The site was assessed on November 14, 2011. LO17 is a trench-like depression formed from mine tailings south of Little Oregon Creek; there is no defined channel connection between the two features. The site covers approximately 790 m^2. The maximum observed water depth was 0.2 m; bank full depth was estimated to be 0.3 m. Some large woody material occurs within the wetted perimeter. Substrate consists of detritus, leaf litter, large woody material, and mine tailing cobbles. Emergent vegetation in the east portion of the wetland consisted of dense small-fruited bulrush; the east portion of the wetland had areas of open water interspersed with pondweed (*Potamogeton* sp.). Bracken fern (*Pteridium aquilinum*) and madrone saplings were overhanging. No amphibians were observed; the wetland has no surface water connectivity to Little Oregon Creek, so fish access is not possible. LO17 is identified by Barry (2002) as part of the "potholes on first terrace, east of Oregon Hill Road,"

which may be potential CRLF habitat; however, there were no detections during surveys in 2001 or 2002. Surrounding upland is mixed conifer/deciduous forest.

1.2.42 LO18



LO18 is a 20-m-long section of the perennial mainstem of Little Oregon Creek located approximately 248 m west of New Bullards Bar Reservoir, 146 m from the FERC Boundary on the Plumas National Forest. LO18 is 596 m from the nearest known CRLF occurrence, and is within the USFWS critical habitat unit. NWI maps of the area (USFWS 2011) depict a palustrine, forested, semi-permanent/seasonal/saturated (PFOY) linear wetland feature along the entire length of this tributary, including this site.

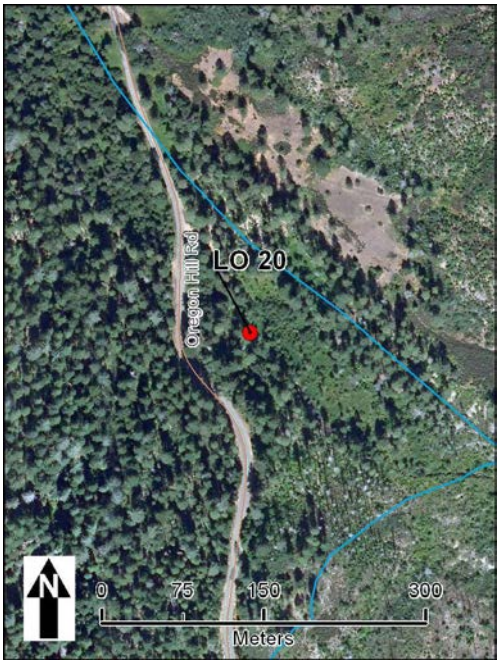
The site was assessed on November 14, 2011. The bank full width was estimated to be 5 m, and the bank full depth was estimated to be 2 m. The stream gradient was less than 1 percent. One large pool was present at this site, measuring 20 m x 3.5 m, with a maximum depth of 1.2 m. The site consisted entirely of a main channel pool; non-pool habitat upstream and downstream of the site was riffle. The substrate was sand, gravel, and cobble; the banks were steep and incised. Emergent vegetation was dense on the left bank and consisted of small-fruited bulrush; overhanging vegetation was alder and western dogwood. Large woody material was present on the banks and in the channel. No amphibians or fish were observed; however, fish are known to be present in Little Oregon Creek. Surrounding upland is early successional, shrub-stage vegetation regenerating from a 1999 fire.

1.2.43 LO19

LO19 is a palustrine emergent wetland section of the perennial mainstem of Little Oregon Creek located approximately 653 m west of New Bullards Bar Reservoir, 550 m from the FERC Boundary on the Plumas National Forest. LO19 is 204 m from the nearest known CRLF occurrence and within the USFWS critical habitat unit. This site is not depicted as a wetland on NWI maps of the area.

The site was assessed on November 14, 2011. LO19 is a trench-like depression above the right bank of Little Oregon Creek; the feature likely receives overbank flooding from Little Oregon Creek during high flow events. The site covers approximately 66 m^2. The maximum observed water depth was 0.1 m; bank full depth was estimated to be 0.2 m. Some large woody material occurs within the wetted perimeter. Substrate consists of detritus and silt/sand. Vegetation in the east portion of the wetland was limited to overhanging Himalayan blackberry; the west portion of the wetland was vegetated with dense American brooklime. The substrate was sand, gravel, and cobble; the banks were steep and incised. No amphibians or fish were observed; however, fish are known to be present in Little Oregon Creek. Surrounding upland is mixed conifer/deciduous forest, portions of which had been burned during a 1999 fire.

1.2.44 LO20



LO20 is a 10-m-long section of the perennial mainstem of Little Oregon Creek located approximately 721 m west of New Bullards Bar Reservoir, 610 m from the FERC Boundary on the Plumas National Forest. LO20 is 116 m from the nearest known CRLF occurrence and within the USFWS critical habitat unit. NWI maps of the area (USFWS 2011) depict a palustrine, forested, semi-permanent/seasonal/saturated (PFOY) linear wetland feature along the entire length of this tributary, including this site.

The site was assessed on November 14, 2011. The bank full width was estimated to be 5 m, and the bank full depth was estimated to be 1.8 m. The stream gradient was less than 1 percent. One large pool was present at this site, measuring 10 m x 3 m, with a maximum depth of 0.6 m. Non-pool habitat upstream and downstream of the site was riffle. The substrate was sand, gravel, and cobble; the left bank was steep and incised whereas the right bank was on a more gradual slope. Aquatic and emergent vegetation was absent; California wild grape (*Vitis californica*), bracken fern, and Himalayan blackberry were overhanging. No amphibians were observed. One 10-inch unidentified fish was seen in the plunge pool. Some SWD was present on the banks and in the channel. Surrounding upland is mixed conifer/deciduous forest, portions of which had been burned during a 1999 fire.

1.2.45 LO21

LO21 is a palustrine emergent wetland, located 83 m east of Oregon Hill Road, approximately 759 m west of New Bullards Bar Reservoir, and 640 m outside of the FERC Boundary on the Plumas National Forest. LO21 is in same network of mine tailing depressions as reported CRLF occurrence. This site is not depicted as a wetland on NWI maps of the area.

The site was assessed on November 14, 2011, and a portion of the site was photographed on December 19, 2011 in the company of M. Tierney, USFS District Biologist. The site was also visited on March 5, 2012 accompanied by Forest Service and SWRCB agency staff listed in the WaC1 description above. A follow-up site visit was conducted on May 31, 2012. LO21 is associated with irregularly shaped depressions, formed from mine tailings. The site is one of two reported locations of CRLF in the assessment area, with the first observations in 2000. The site covers approximately 270 m^2. Most of the site did not hold water at the time of assessment, when the deepest observed water was only 0.03 m. The estimated bank full depth was 0.2 m. Based on the vegetation patterns, much of the site may be dry by early spring. Some large woody material occurs within the site. The substrate was small boulders, cobble, and detritus. Giant chain fern was dominant within all but one of the depressions, along with giant horsetail and alder saplings in places. Giant chain fern did not occur in the approximately 3 m^2 depression where CRLF has been observed previously. On December 19, 2011, the maximum observed water depth of this pool was 0.1 m; bank full depth was estimated to be 1 m. Emergent vegetation consists of scouring rush, American brooklime, and soft rush, with Himalayan blackberry, willows, and red twig dogwood overhanging around the perimeter. Large woody material also occurred within the wetland perimeter. This pool was also observed on March 6, 2012. The maximum observed water depth was approximately 0.25 meter. Three Sierra treefrogs and two frogs not identified to species were observed on March 6, 2012 at the site. The site is not accessible to fish. Surrounding upland is mixed conifer/deciduous forest, portions of which had been burned during a 1999 fire.

1.2.46 LO22

LO22 is a palustrine emergent wetland, located in conifer forest, approximately 18 m east of Oregon Hill Road, 808 m west of New Bullards Bar Reservoir, and 688 m outside of the FERC Project Boundary on the Plumas National Forest. LO22 is 40 m from the nearest known CRLF occurrence and within the USFWS critical habitat unit. This site is not depicted as a wetland on NWI maps of the area.

The site was assessed on November 14, 2011. LO22 is situated in an area of mine tailings and includes two depressions which hold water seasonally. The site covers approximately 8 m^2. The site held no standing water when examined. Based on the vegetation patterns, much of the site may be dry by early spring. The substrate was debris and soil. Giant chain fern and alder saplings are dominant within the depressions. An adult Sierra newt was observed in the adjacent uplands. The site is not accessible to fish. Surrounding upland is mixed conifer/deciduous forest.

1.2.47 LO23

LO23 is a palustrine emergent wetland, located between Oregon Hill Road and Little Oregon Creek, 500 m west of New Bullards Bar Reservoir, and 406 m outside of the FERC Project Boundary on the Plumas National Forest. LO23 is 1.1 km from the nearest known CRLF occurrence and within the USFWS critical habitat unit. This site is not depicted as a wetland on NWI maps of the area.

The site was examined on April 5 and October 20, 2011 and formally assessed on November 15, 2011. LO23 is situated in an extensive area of mine tailings and associated with an apparent circular-shaped excavation. The site covers approximately 120 m^2; the maximum observed water depth was 0.3 m; bank full depth was estimated to be 1 to 1.2 m. About half of the site is a perennial pond too deep to support emergent vegetation, where pondweed occurs. Shallower emergent edges and the west half of the basin was dominated by common cattail, soft rush, and scouring rush, with bracken, willows, Himalayan blackberry, and other shrubs on the steep south bank. Large woody material occurred within the wetland perimeter. The substrate was mud/sand, silty loam, and detritus. Sierra treefrog eggs were observed on April 5. The site is not accessible to fish. LO23 is surrounded by mine tailing berms, currently vegetated by scrub shrub vegetation, including madrone, Himalayan blackberry, tanoak, and sapling conifers.

1.2.48 LO24

LO24 is a palustrine emergent wetland located in conifer forest, approximately 14 m east of Oregon Hill Road, 683 m west of New Bullards Bar Reservoir, and 480 m outside of the FERC Project Boundary on the Plumas National Forest. LO24 is 280 m from the nearest known CRLF occurrence and within the USFWS critical habitat unit. This site is not depicted as a wetland on NWI maps of the area.

The site was assessed on November 15, 2011. LO24 is associated with a somewhat indistinct, shallow depression; mine tailings were not observed, but could be present under the dense vegetation. The site covers approximately 10 m^2. The site held no standing water when examined, and based on vegetation patterns and topography, may only hold water in late winter/early spring. Decaying large woody material was abundant. The substrate was detritus. Giant chain fern is dominant. No amphibians were observed; the site is not accessible to fish. LO24 is bound on the west side by the Oregon Hill Road embankment and by a steep hill on the east side. Surrounding upland is mixed conifer/deciduous forest.

1.2.49 LO28

LO28 is a palustrine emergent wetland located in conifer forest, approximately 5 m east of Oregon Hill Road, 840 m west of New Bullards Bar Reservoir, and 719 m outside of the FERC Project Boundary on the Plumas National Forest. LO28 is one of the reported locations of CRLF in the assessment area and within the USFWS critical habitat unit. This site is not depicted as a wetland on NWI maps of the area.

The Forest Service provided information on the site location; the site was located accompanied by M. Tierney, USFS biologist and photographed on December 19, 2011. The site was formally assessed on March 5, 2012 accompanied by Forest Service and SWRCB agency staff listed in the WaC1 description above. The site is one of two reported locations of CRLF in the assessment area, with the first observations in 2000. LO28 is situated in an extensive area of mine tailings and associated with an apparent kidney-shaped excavation. The site is approximately 35 m^2. The maximum observed water depth was 0.25 m; bank full depth was

estimated to be 0.3 m. The pond was dominated by small-fruited bulrush, American brooklime, soft rush and pondweed, with some scouring rush and willows near the pond edge. Large woody material occurred within the wetland perimeter. No amphibians were observed. The site is not accessible to fish. LO28 is bound on the west side by the Oregon Hill Road embankment and on other sides by mine tailing berms. Surrounding upland is mixed conifer/deciduous forest, portions of which had been burned during a 1999 fire.

1.2.50 NBB35A

NBB35A is a 3-m-long section of an unnamed perennial stream, located approximately 267 m north of New Bullards Bar Reservoir at the crossing of Moran Road, and 182 m outside of the FERC Project Boundary on private property. NBB35A is 1.4 km from the nearest known CRLF occurrence and within the USFWS critical habitat unit. This site is not depicted as a wetland on NWI maps of the area.

The site was examined on October 19, and formally assessed on November 16, 2011. NBB35A is in the same drainage as NBB2; this stream flows into New Bullards Bar Reservoir at Moran Cove. The bank full width was approximately 1 m and the bank full depth was 0.2 m. The stream gradient was 8 percent. Above a culvert, one pool was present, measuring 1 m x 1 m, with a maximum depth of 0.15 m. Non-pool habitat was riffle. The substrate was deep silt and cobble. The banks were steep and densely vegetated. Emergent vegetation consisted primarily of soft rush. Soft rush, dock (*Rumex* sp.), goldenrod (*Solidago* sp.), and Himalayan blackberry were overhanging. The stream is evidently accessible to fish; however, no fish or amphibians were observed. Surrounding upland is early successional, shrub-stage vegetation regenerating from logging activities.

1.2.51 NBB35B

NBB35B is a 12-m-long section of an unnamed perennial stream, located approximately 12 m north of New Bullards Bar Reservoir at Moran Cove, within the FERC Project Boundary on YCWA property. NBB35B is 1.2 km from the nearest known CRLF occurrence and is within the USFWS critical habitat unit. This site is not depicted as a wetland on NWI maps of the area.

The site was examined on October 19, and formally assessed on November 16, 2011. NBB35B is in the same drainage as NBB35A; this stream flows into New Bullards Bar Reservoir at Moran Cove. The bank full width was approximately 1.5 m and the bank full depth was 0.2 - 0.3 m. The stream gradient was approximately 5 percent. No pools occur. Non-pool habitat was riffle. A narrow, fringing emergent wetland, measuring 3 m x 5 m, occurs on the left bank of the stream. The substrate was silt and sand with organic matter; large woody material was moderately dense in the channel. The banks were steep and densely vegetated. Scouring rush and small-fruited bulrush were emergent; Himalayan blackberry and giant chain fern were overhanging. The stream is evidently accessible to fish; however, no fish or amphibians were observed. Surrounding upland is early successional, shrub-stage vegetation.

1.2.52 NBB36

NBB36 is a 10-m-long section of an unnamed perennial stream, located approximately 17 m north of New Bullards Bar Reservoir at Moran Cove, within the FERC Project Boundary on the Plumas National Forest. NBB36 is 1.1 km from the nearest known CRLF occurrence and within the USFWS critical habitat unit. This site is not depicted as a wetland on NWI maps of the area.

The site was examined on October 19, and formally assessed on November 16, 2011. NBB36 is in a separate tributary west of NBB35A and NBB35B that flows into New Bullards Bar Reservoir at Moran Cove. The bank full width was approximately 1.5 m and the bank full depth was 0.2 - 0.3 m. The stream gradient was approximately 5 percent. No pools occur. Non-pool habitat was riffle. The substrate was silt, sand, and gravel. The banks were steep and densely vegetated with Himalayan blackberry. Field horsetail (*Equisetum hyemale*), soft rush, and mannagrass (*Glyceria* sp.) were dominant at edgewater of the stream; Himalayan blackberry, alder, and willows were overhanging. No fish or amphibians were observed. Surrounding upland is early successional, shrub-stage vegetation.

1.2.53 BB1

BB1 is a 4-m-long section of an ephemeral tributary to Burnt Bridge Creek, located approximately 1.1 km west of New Bullards Bar Reservoir, and 570 m outside of the FERC Project Boundary on the Plumas National Forest. BB1 is 1.9 km from the nearest known CRLF occurrence and within the USFWS critical habitat unit. This site is not depicted as a wetland on NWI maps of the area.

The site was examined on October 18 and formally assessed on November 15, 2011. BB1 is a colluvial, headwater tributary to Burnt Bridge Creek and did not hold water during either site visit. BB1 is in the same drainage, but upstream of BB2. Based on abundant leaf litter in the poorly defined channel, BB1 is an ephemeral stream conveying runoff after precipitation events. The bank full width was estimated to be 2 m, and the bank full depth was 0.15 m. The stream gradient was approximately 5 percent. Based on gradient, aquatic habitat consisted of riffle; no pools occur. The substrate was cobble and gravel, and large woody material was abundant in the streambed. The shallow, barely formed stream banks were sparsely vegetated with California honeysuckle (*Lonicera hispidula*). There was no emergent or overhanging vegetation. No fish or amphibians were observed. Surrounding upland habitat is coniferous forest.

1.2.54 BB2

BB2 is a 40-m-long section of a perennial tributary to Burnt Bridge Creek, located approximately 970 m west of New Bullards Bar Reservoir, and 252 m outside of the FERC Project Boundary on private property. BB2 is 1.5 km from the nearest known CRLF occurrence and within the USFWS critical habitat unit. This site is not depicted as a wetland on NWI maps of the area.

The site was examined on October 18 and formally assessed on November 15, 2011. BB2 is in the same drainage as BB1; however, BB2 receives water via a hillside seep down-slope of BB1, and BB1 is ephemeral. The bank full width was estimated to be 1.5 m, and the bank full depth was 0.6 m. The stream gradient was approximately 7 percent; the gradient was about 10 percent upslope of the assessment location. One pool was present, measuring 1 m x 1 m, with a maximum depth of 0.6 m. Non-pool habitat was riffle.

The substrate was cobble and gravel, and large woody material was abundant in the streambed. The steep and incised banks were primarily gravel and boulder and sparsely vegetated at the road crossing with overhanging giant chain fern, madrone, Himalayan blackberry, tanoak, and western dogwood. Further upstream, overhanging vegetation was very dense and consisted primarily of Himalayan blackberry. Emergent vegetation was absent. No fish or amphibians were observed. Surrounding upland habitat is mixed coniferous/deciduous forest; early successional, shrub-stage vegetation regenerating from logging activities borders the stream on the south west side.

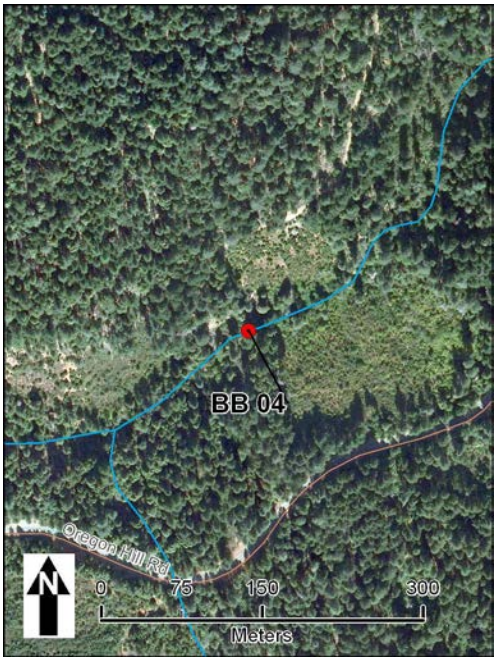
1.2.55 BB3

BB3 is a 12-m-long section of a perennial stream, Burnt Bridge Creek, located approximately 1.2 km west of New Bullards Bar Reservoir, and 175 m outside of the FERC Project Boundary on private property. BB3 is 1.3 km from the nearest known CRLF occurrence, and is within the USFWS critical habitat unit. NWI maps of the area (USFWS 2011) depict a palustrine, forested, semi-permanently saturated (PFOY) linear wetland feature along the lower portion of Burnt Bridge Creek, including this site.

The site was examined on October 18 and formally assessed on November 15, 2011. Burnt Bridge Creek flows into New Bullards Bar Reservoir; BB3 is located upstream of BB4. The bank full width was estimated to be 6 m, and the bank full depth was 0.9 m. The stream gradient ranged from 0.25 to 1 percent. Below a large culvert (about 2 m in diameter), one large pool was present, measuring 3.5 m x 6 m, with a maximum depth of 0.3 m. Non-pool habitat was riffle. The substrate was boulder and cobble. The banks were steep and incised at the large pool and moderately sloped downstream. Emergent vegetation was absent; western dogwood was overhanging. No fish or amphibians were observed. Surrounding upland habitat is mixed coniferous/deciduous forest.

1.2.56 BB4

BB4 is a 12-m-long section of a perennial stream, Burnt Bridge Creek, located approximately 760 m west of New Bullards Bar Reservoir, within the FERC Project Boundary on the Plumas National Forest. BB4 is 1.3 km from the nearest known CRLF occurrence and is within the USFWS critical habitat unit. NWI maps of the area (USFWS 2011) depict a palustrine, forested, semi-permanent/seasonal/saturated (PFOY) linear wetland feature along the lower portion of Burnt Bridge Creek, including this site.



The site was examined on October 18 and formally assessed on November 16, 2011. Burnt Bridge Creek flows into New Bullards Bar Reservoir; BB4 is downstream of BB3. The bank full width was estimated to be 6 m, and the bank full depth was 0.6 m. The stream gradient ranged from 1 to 2 percent. One large pool was present, measuring approximately 4 m x 8 m, with a maximum depth of 0.3 m. Non-pool habitat was riffle. The substrate was mud, silt and sand with some organic matter; large woody material was abundant in the channel. The banks were low gradient and consisted of soil. Emergent vegetation was absent; western dogwood, Himalayan blackberry, beaked hazelnut (*Corylus cornuta*) and California wild grape were overhanging. Himalayan blackberry and California wild grape were very dense and covered the stream channel downstream of the large pool. No fish or amphibians were observed. Surrounding upland is mixed coniferous/deciduous forest and a small area of early successional, shrub-stage vegetation regenerating from logging activities just downstream of BB4, outside of a 30 m riparian buffer.

1.2.57 BB5

BB5 is a 15-m-long section of a perennial tributary to Burnt Bridge Creek, located approximately 2.5 km west of New Bullards Bar Reservoir, and 1.4 km outside of the FERC Project Boundary on the Plumas National Forest. BB5 is 2.5 km from the nearest known CRLF occurrence and is within the USFWS critical habitat unit. This site is not depicted as a wetland on NWI maps of the area.

The site was examined on October 19 and formally assessed on November 16, 2011. The bank full width was approximately 2 m, and the bank full depth was 1.2 m. The stream gradient was about 6 percent. Small pools occur; the largest was a plunge pool, located below a culvert, and it measured 2 m x 3 m, with a maximum depth of 0.76 m. Non-pool habitat was riffle. The substrate was mud and sand with cobble and some organic matter. The banks were comprised mainly of soil and primarily low gradient, but steep around the plunge pool, and slightly undercut upstream of the road. Emergent vegetation was absent; overhanging vegetation was sparse and consisted of western dogwood, giant chain fern, and tanoak. BB5 was heavily shaded by a dense riparian canopy. No fish or amphibians were observed. Surrounding upland is mixed coniferous/deciduous forest.

1.2.58 BB6

BB6 is a 10-m-long section of a perennial stream, Burnt Bridge Creek, located approximately 2.5 km west of New Bullards Bar Reservoir, and 1.6 km outside of the FERC Project Boundary on the Plumas National Forest. BB6 is 2.7 km from the nearest known CRLF occurrence and is within the USFWS critical habitat unit. This site is not depicted as a wetland on NWI maps of the area.

The site was examined on October 19 and formally assessed on November 16, 2011. The bank full width was approximately 3 m and the bank full depth was 0.9 m. The stream gradient was about 4 percent. Small pools occur; the largest was a plunge pool, located below a culvert, and it measured 2.5 m x 3.5 m, with a maximum depth of 0.76 m. Non-pool habitat was riffle. The substrate was mud, sand and cobble. The banks were steep and comprised of soil at the pool and moderately sloped elsewhere. Emergent vegetation was absent; overhanging vegetation was sparse and consisted of western dogwood. No fish or amphibians were observed. Surrounding upland is mixed coniferous/deciduous forest.

1.2.59 Log Cabin Diversion Dam Impoundment

Log Cabin Diversion Dam Impoundment is located on Oregon Creek, a perennial stream. The impoundment is located 1.8 km west-southwest of New Bullards Bar Reservoir, within the FERC Project Boundary on YCWA property and the Tahoe National Forest. Log Cabin Diversion Dam Impoundment is 10.1 km from the nearest known CRLF occurrence, and is located outside of the USFWS critical habitat unit. National Wetlands Inventory (NWI) data for the area (USFWS 2011) depict Log Cabin Diversion Dam Impoundment as a palustrine, open water, artificially flooded, intermittently exposed (POWKZ) wetland feature.

Oregon Creek, a tributary to the Middle Yuba River, originates at an elevation of approximately 5,600 feet and flows southwesterly for about 21.4 mi to where it converges with the Middle Yuba River. Log Cabin Diversion Dam is located at RM 4.1. Streams as large as Oregon Creek, with headwaters subject to snow-melt are not typically used as breeding habitat by CRLF. Log Cabin Diversion Dam Impoundment at bank full ranges from about 15 to 33 m

wide, and has a maximum bank full depth of about 4 to 5 m. The substrate was cobble in the upstream portion of the impoundment, and silt/sand in the downstream portion of the impoundment. The right bank was steep boulder; the left bank was moderately steep to steep boulder and bedrock outcrop. Aquatic and emergent vegetation are limited in extent. Patches of submerged aquatic vegetation were growing in the sandy substrate; and only patches of sedges were found near the left bank. Willow was overhanging primarily on the right bank. Fish were observed in the impoundment. No amphibians were observed in the impoundment proper; however, foothill yellow-legged frogs (*Rana boylii*) have been detected upstream of the impoundment. At least one western pond turtle (WPT) (*Actinemys* [formerly *Emys* or *Clemmys*] *marmorata*) has been observed during 2012 basking surveys for the YRDP. Surrounding upland is second-growth, mixed coniferous/deciduous forest.

2.0 Narrows 2 Development Assessment Area

2.1 Overview

The assessment encompasses the area within 1.6 km of the Project's Narrows 2 Development in the vicinity of the United States Army Corps of Engineers' (USACE) Englebright Dam. The Narrows 2 Development includes the Narrows 2 Powerhouse Penstock, Narrows 2 flow bypass, Narrows 2 Powerhouse and Switchyard, and appurtenant access roads within the FERC Project Boundary. The Narrows 2 development does not include any recreation areas or water conveyance systems or other facilities, features or appurtenant structures that are used by Licensee or any other party solely for the purpose of providing consumptive water.

2.2 Assessment Sites

A total of 15 aquatic sites in the Narrows 2 Development assessment area were identified and assessed as potentially suitable as breeding habitat for CRLF. Maps showing site locations, land ownership, vegetation cover types, and other features are presented in Attachment 7-3A, Parts 3 and 4. Land ownership in the assessment area is principally State of California, Army Corps of Engineers, and private. Existing land uses include agriculture, limited residential development and recreation. The area is characterized by low foothills with low-gradient streams and few wetlands that are not associated with stream courses. Most of the area is oak savannah. There is no recreational use associated with the Narrows 2 Development. Vegetation in the assessment area is predominantly classified by CALVEG (2010) as Annual Grasses and Forbs; forests in the assessment area are predominately Blue Oak and Interior Live Oak, with patches of Grey Pine located on steeper slopes in the assessment area. Potential impediments to CRLF upland dispersal include Harry L. Englebright Reservoir. Mooney Flat Road is the primary paved road in the assessment area, which is frequently travelled. Scott Forbes Road and Narrows #2 Road, the two other primary paved roads in the assessment area, are not heavily traveled.

A total of 15 sites were assessed: 8 in the field, including 7 that were assessed from the adjacent, public road because of private property restrictions; and 7 sites that were not accessible for on-site assessment, and were therefore assessed from aerial imagery.

There are no documented occurrences of CRLF in the Narrows 2 Development assessment area. A review of the California Natural Diversity Database indicated no other historical records of CRLF within or in the vicinity of the assessment area (CDFG 2012).

Table 2.2-1. Summary of sites (aquatic habitat locations) field assessed for potential CRLF breeding habitat within the Narrows 2 Development Assessment Area for the Yuba River Development Project.

Site[1]	Habitat Feature/ Seasonality/Location	Date Field Assessed	Meets 20-Week Criterion	Description
DrC1	Stream, seasonal-tributary to Dry Creek; near Scott Forbes Road	03/03/12	Yes[2]	Small seasonal stream with small pools; emergent vegetation growing throughout channel. Fish presence unknown. 23.2 km from nearest known CRLF occurrence; not located within critical habitat unit.
DrC2	Stream, seasonal-tributary to Dry Creek; near Scott Forbes Road	03/03/12	Yes[2]	Small low gradient intermittent stream with small pools. Relatively dense emergent vegetation growing throughout channel. Fish presence unknown. 22.8 km from nearest known CRLF occurrence; not located within critical habitat unit.
DrC3	Pond, perennial; near Scott Forbes Road	03/03/12	Yes[2]	Excavated pond on private cattle land; no visible inlet or outlet present. Emergent vegetation on east shore. Fish presence unknown. 21.9 km from nearest known CRLF occurrence and outside of critical habitat unit.
DrC4	Pond, seasonal; near Scott Forbes Road	03/03/12	Yes[2]	Small excavated pond fed by a seep; no inlet/outlet present. Audible treefrog calls at site. Not accessible to fish. 22.1 km from nearest known CRLF occurrence; not located within critical habitat unit.
DrC5	Stream, seasonal-tributary to Dry Creek; near Scott Forbes Road	03/03/12	Yes[2]	Small road-side creek with a pool formed by old road crossing. Audible treefrog calls at site. Fish presence unknown. 22.6 km from nearest known CRLF occurrence; not located within critical habitat unit.
DeC1	Stream, perennial-tributary to Englebright Reservoir; at Mooney Flat Road stream crossing.	03/03/12	Yes	Major tributary to Englebright Reservoir. Primarily high gradient with no pools; negligible aquatic or emergent vegetation and overhanging vegetation consisting of deciduous trees. Presence of fish likely. 24.1 km from nearest known CRLF occurrence; not located within critical habitat unit.
ER1	Stream, seasonal- tributary to Englebright Reservoir; located between Scott Forbes Road and Englebright Reservoir	03/03/12	?	Small low-gradient swale with small pools. Emergent vegetation throughout channel. No fish present. 22.0 km from nearest known CRLF occurrence; not located within critical habitat unit.
JM1	Stream, seasonal, Joe Miller Ravine mainstem; located at Skippers Cove Marina on Englebright Reservoir.	03/03/12	?	Moderate-gradient stream with limited pool habitat. Limited grasses and cress at pool margins. Fish presence unknown. 22.2 km from nearest known CRLF occurrence; not located within critical habitat unit.

Key: CRLF = California red-legged frog; km = kilometers
[1] Land ownership: Pink = Private; Blue = State of California
[2] Evidence of inundation visible on mid to late summer aerial photos from GoogleEarth Pro (2012)

Table 2.2-2. Summary of sites (aquatic habitat locations) assessed from aerial photographs for potential CRLF breeding habitat within the Narrows 2 Development Assessment Area for the Yuba River Development Project.

Site[1]	Habitat Feature/ Seasonality/Location	Meets 20-Week Criterion	Description[2]
ER2	Pond, perennial, located east of Englebright Reservoir	Yes[3]	Excavated pond; depth unknown. Emergent vegetation limited to pond margin; mowed grasses at pond perimeter. Fish presence unknown. 21.7 km from nearest known CRLF occurrence; not located within critical habitat unit.

Table 2.2-2. (continued)

Site[1]	Habitat Feature/ Seasonality/Location	Meets 20-Week Criterion	Description
ER4	Stream, seasonal (Dry Creek tributary), located southwest of Englebright Reservoir	?	Small low gradient stream with limited pool habitat. Aquatic/emergent vegetation presence unknown; dense riparian canopy. Fish presence unknown. 23.2 km from nearest known CRLF occurrence; not located within critical habitat unit.
ER5	Stream, seasonal (unnamed tributary to Englebright Reservoir), located southwest of Englebright Reservoir	?	Small low gradient stream with limited pool habitat. Aquatic/emergent vegetation presence unknown; dense riparian canopy. Fish presence unknown. 23.6 km from nearest known CRLF occurrence; not located within critical habitat unit.
ER6	Pond, perennial, located southeast of Englebright Reservoir	Yes[2]	Excavated pond; depth unknown. Emergent vegetation limited to pond margin; patches of trees overhang pond. Fish presence unknown. 22.9 km from nearest known CRLF occurrence; not located within critical habitat unit.
ER10	Stream, seasonal (unnamed tributary to Englebright Reservoir), located west of Englebright Reservoir	?	Small low gradient stream with some pools. Aquatic/emergent vegetation presence unknown; dense riparian canopy. Fish presence unknown. 21.3 km from nearest known CRLF occurrence; not located within critical habitat unit.
ER11	Stream, seasonal (unnamed tributary to Englebright Reservoir), located west of Englebright Reservoir	?	Small low-gradient stream with small pools. Emergent vegetation growing throughout channel. Minimal riparian canopy. Fish presence unknown. 21.3 km from nearest known CRLF occurrence; not located within critical habitat unit.
ER16	Stream, seasonal (unnamed tributary to Englebright Reservoir), located west of Englebright Reservoir	?	Small low-gradient stream with small pools. Aquatic/emergent vegetation presence unknown; dense riparian canopy. Fish presence unknown. 21.5 km from nearest known CRLF occurrence; not located within critical habitat unit.

Key: CRLF = California red-legged frog; km = kilometers
[1] Land ownership: Pink = Private; Blue = State of California
[2] Evidence of inundation visible on mid to late summer aerial photos from GoogleEarth Pro (2012)

2.2.1 DrC1

DrC1 is a portion of a seasonal unnamed tributary to Dry Creek that is within 1.6 km of the Narrows 2 Access Road. It is a seasonal stream that is approximately one mi from Englebright Reservoir. DrC1 is 1.6 km outside of the FERC Project Boundary on State of California land. Dry Creek is 23.2 km from the nearest known CRLF occurrence, and is located outside of the USFWS critical habitat unit. This site is not depicted as a wetland on NWI maps of the area.

The site was assessed on March 3, 2012. DrC1 at bank full is approximately 2 m wide, and the bank full depth was estimated to be 0.5 m deep. The stream gradient averaged 1-2 percent. Pools within the stream measured approximately 1 m x 3.5 m, with a maximum depth of 0.25 m. Non-pool habitat was low-gradient riffle. The substrate was unknown, but likely sand/mud with cobble and gravel. The banks were moderately steep and consisted of soil. Dense emergent vegetation consisting of cattail and cress was growing throughout the channel; and California buckeye (*Aesculus californica*) was

overhanging along the bank. The over-story canopy cover along the banks consists of oak and pine. No fish or amphibians were observed. Surrounding upland consists of open grass meadows with some chaparral.

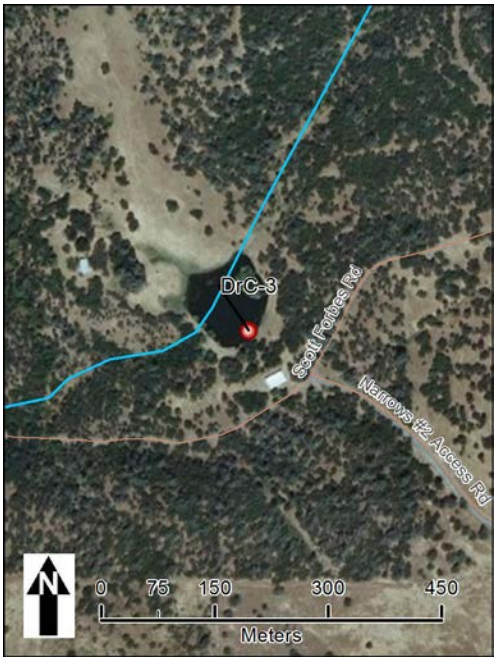
2.2.2 DrC2

DrC2 is a portion of an unnamed tributary to Dry Creek. It is a seasonal stream that is located approximately 1.2 km west of Narrows #2 Road. DrC2 is 1.2 km outside of the FERC Project Boundary on State of California land. DrC2 is 22.8 km from the nearest known CRLF occurrence, and is not located in the USFWS critical habitat unit. This site is not depicted as a wetland on NWI maps of the area.

The site was assessed on March 3, 2012. DrC1 at bank full is approximately 4 m wide, and the bank full depth was estimated to be 0.25 m deep. The stream gradient averaged 1-2 percent. Pools within the stream measured approximately 4 m x 3 m, with a maximum depth of 0.20 m. Non-pool habitat was low-gradient riffle. The substrate was mud. The banks were composed of low-gradient soil. Moderately dense cattail, soft rush, and scattered cress were growing in the channel; overhanging vegetation was willow. No fish or amphibians were observed. Surrounding upland area consists of open oak savannah.

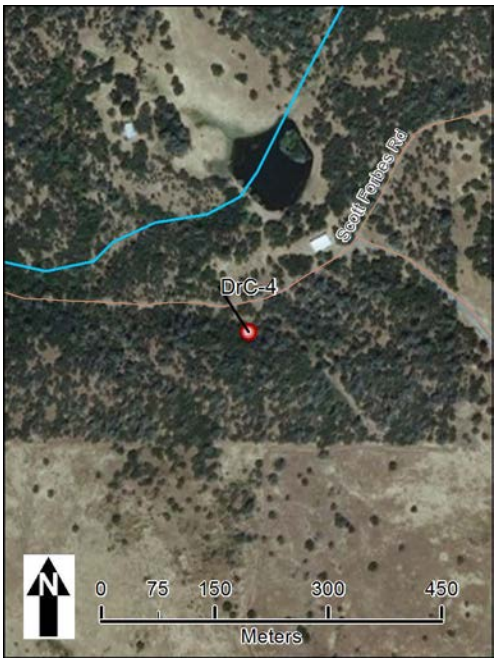
2.2.3 DrC3

DrC3 is a roughly a 1.5-hectare perennial pond located within 1.6 km of the Narrows #2 Access Road. DrC3 is 100m outside of the FERC Project Boundary on private land. DrC3 is 21.9 km from the nearest known CRLF occurrence, and is located outside of the USFWS critical habitat unit. This site is not depicted as a wetland on NWI maps of the area.



The site was assessed on March 3, 2012 from Scott Forbes Road. The approximate dimensions of the pond are 100 m by 150 m. The maximum depth was visually estimated to be at least 1 m. The pond does not appear to contain inlets or outlets to the stream. The substrate could not be determined. Grazed grasses were limited to the pond margin; small patches of cattail were scattered around the pond as well. Overhanging vegetation was limited to a patch of willows growing on the east shore. No fish or amphibians were observed. Surrounding upland consists of open grass meadows with scattered trees.

2.2.4 DrC4



DrC4 is a small, excavated, seasonal pond within 1.6 km of the Narrows #2 Access Road. DrC4 is 200 m outside of the FERC Project Boundary on private land. DrC4 is 22.1 km from the nearest known CRLF occurrence, and is located outside of the USFWS critical habitat unit. This site is not depicted as a wetland on NWI maps of the area.

The site was assessed on March 3, 2012. DrC4 is approximately 4 m by 4 m, and the maximum depth was estimated to be 0.5 m. The pond does not contain inlets or outlets and is approximately one mi from Englebright Reservoir. The substrate was a mixture of sand and mud. Scattered cress, dock, and grasses were growing at the pond margin; overhanging/overstory vegetation was not present. No fish or amphibians were observed; however, treefrog calls were audible. The surrounding upland consists of meadow with trees on the periphery.

2.2.5 DrC5

DrC5 is a portion of an unnamed seasonal tributary to Dry Creek located within 1.6 km of Narrows #2 Road. DrC5 is 1 km outside of the FERC Project Boundary on State of California

land. DrC5 is 22.6 km from the nearest known CRLF occurrence, and is located outside of the USFWS critical habitat unit. This site is not depicted as a wetland on NWI maps of the area.

The site was assessed on March 3, 2012. DrC5 at bank full is approximately 3 m wide, and the bank full depth was estimated to be between 0.25 m and 0.3 m. The stream gradient averaged 1 percent. Pools were formed by an old road crossing and measured approximately 3 m x 3 m, with a maximum depth between 0.2 m and 0.3 m. Non-pool habitats were low-gradient riffles and runs. The substrate was mud and sand; the bank consisted of low-gradient soil. Dense patches of dock and soft rush were growing mainly at the edge of the stream channel; overhanging vegetation of blackberry and willow was present along the bank. No fish or amphibians were observed; however, treefrog calls were audible. Surrounding upland consists of open grass meadows with shrubs along the riparian area.

2.2.6 DeC1

DeC1 is a high-gradient portion of Deer Creek, a perennial stream located within 1.6 km of the Narrows #2 Powerhouse. DeC1 is 1.3 km outside of the FERC Project Boundary on private land. DeC1 is 24.1 km from the nearest known CRLF occurrence, and is located outside of the USFWS critical habitat unit. NWI maps of the area (USFWS 2011) depict a riverine, upper perennial, open water, intermittently exposed/permanent (R3OWZ) wetland feature associated with Deer Creek.

The site was assessed on March 3, 2012. DeC1 at bank full is approximately 20 m wide, and the bank full depth was estimated between 1 m and 5 m. The stream gradient averaged about 2 to 3 percent. Pools within the stream measured approximately 10 m x 20 m, with a maximum depth of 1.8 m to 2.4 m. Non-pool habitat was high-gradient riffle. The substrate was a mix of gravel, cobble and boulders. Emergent vegetation was not present; overhanging vegetation consisted of willow and dogwood. The over-story canopy cover along the high gradient, bedrock and boulder banks consisted of pine and cottonwood. Presence of fish was likely; however, no

fish or amphibians were observed. Surrounding upland is second-growth, mixed coniferous/deciduous forest.

2.2.7 ER1

ER1 is a seasonal tributary to Englebright Reservoir located within 1.6 km of the Narrows #2 Access Road. ER1 is 100 m outside of the FERC Project Boundary on State of California land. ER1 is 22.0 km from the nearest known CRLF occurrence, and is located outside of the USFWS critical habitat unit. This site is not depicted as a wetland on NWI maps of the area.

The site was assessed on March 3, 2012. ER1 at bank full is approximately 4 m wide, and the bank full depth was estimated to be 0.15m. The stream gradient averaged between 1 and 2 percent. Pools within the stream measured approximately 4 m x 10 m, with a maximum depth of 0.1 m. Non-pool habitat was low-gradient riffle. The substrate was mud and sand. Dense cattail and soft rush were growing throughout the swale; overhanging vegetation was not present. The banks were low gradient soil and grass with some cobble and boulders. No fish or amphibians were observed.

2.2.8 JM1

JM1 a portion of Joe Miller Ravine, a seasonal tributary to Englebright Reservoir located within 1.6 km of the Narrows #2 Powerhouse. JM1 is 900 m outside of the FERC Project Boundary on private land. JM1 is 22.2 km from the nearest known CRLF occurrence, and is located outside of the USFWS critical habitat unit. This site is not depicted as a wetland on NWI maps of the area.

The site was assessed on March 3, 2012. JM1 at bank full is approximately 3 m wide, and the bank full depth was estimated to be between 0.3 m and 0.35 m. The stream gradient averaged between 2 and 3 percent. Pools within the stream measured approximately 1 m x 3 m with a maximum depth of 0.6 m. Non-pool habitats were high gradient riffles and plunge pools. The substrate was a mixture of gravel, cobble, and boulders. The high gradient banks were lined with a thin layer of soil over bedrock. Emergent vegetation consisted of small patches of grasses and

cress at pool margins; overhanging vegetation consisted of blackberry, madrone, and California buckeye. No fish or amphibians were observed; however, the site is within close proximity to Englebright Reservoir and no fish barriers are known to occur downstream.

3.0 Stream Reach Area Assessments

3.1 Middle Yuba River and Assessment Area Sites

The Middle Yuba River is a relatively large stream and does not represent potential CRLF breeding habitat, but could be non-breeding aquatic habitat. Downstream of Our House Diversion Dam, Our House Diversion Dam Reach extends from Our House Diversion Dam 7.5 mi downstream to the confluence with the tributary, Oregon Creek. Oregon Creek Reach extends 4.5 mi downstream from the confluence with Oregon Creek to the North Yuba River confluence. Based on channel classification and habitat mapping performed for the PAD (YCWA 2010), the Middle Yuba River between Our House Diversion Dam and the confluence with the North Yuba River is characterized as follows. The Middle Yuba River flows through a variety of parent materials, most notably resistant granitic rocks. The overall gradient is 1.2 percent, with one gradient break at the Big Bend/Wolf Fault (2.5 percent gradient below the fault, and 1.1 percent gradient above). There are numerous lower gradient sections in which sinuosity never exceeds 1.1 (i.e., valley length and channel length through the valley are approximately equal).

Stream macrohabitat is dominated by mid-channel pools, low gradient riffles, and runs; additional habitat types occurring in more than 5 percent of the total mapped habitat units include high gradient riffles, lateral pools and trench pools. Six tributaries are distributed along Our House Diversion Dam Reach (one is perennial: Grizzly Creek), and there are five tributaries on Oregon Creek Reach (four are perennial: Oregon Creek, Moonshine Creek, Clear Creek and Mary's Ravine/Yellowjacket Creek). Stream habitat in Our House Diversion Dam Reach consists of mid-channel pools, step runs/step pools, and runs at the upstream and downstream sections of the reach, and runs, low-gradient riffles, and lateral pools in the midsection of the reach. Bankfull width averages 15 to 28 m. Boulders and cobbles are dominant substrates. Emergent and aquatic vegetation generally is sparse; margin vegetation consists of patchy grasses/ forbs and shrubs/saplings. Overhanging vegetation is moderately dense deciduous shrubs and saplings. Middle Yuba River flows upstream of the Project are reduced by upstream projects; however, flows of great magnitude driven by snow-melt runoff still occur in most years. Up to a maximum of 860 cfs can be diverted from the Middle Yuba River to New Bullards Bar Reservoir through the Lohman Ridge Diversion Tunnel.

Maps showing site locations, land ownership, vegetation cover types, and other features are presented in Attachment 7-3A, Parts 5 and 6. Uplands in the Middle Yuba River assessment area are mainly characterized by rugged topography. Most of the vegetation cover is mixed conifer/deciduous, with rural-residential land use in the vicinity of North San Juan. Forests in the assessment area are predominately classified by CalVeg (2010) as Ponderosa Pine; patches of Douglas-Fir – Ponderosa Pine, Canyon Live Oak, and Black Oak are also common in the assessment area. Potential impediments to CRLF upland dispersal include New Bullards Bar

Reservoir and steep terrain particularly in the upstream portion of the assessment area. Highway 49, Ridge Road and Pleasant Valley Road are the primary paved roads in the assessment area, which are frequently travelled. Numerous other improved and unimproved roads also occur in the assessment area, but are not as heavily traveled as these roads primarily provide access to local residents and occasional use by YCWA and the Forest Service.

A total of 11 sites within 1.6 km of the project-affected reach of the Middle Yuba River, all situated on private property, were assessed from aerial photographs for potential CRLF breeding habitat, the results of which are presented in Table 3.1-1.

Table 3.1-1. Summary of sites (aquatic habitat locations) assessed from aerial photographs for potential CRLF breeding habitat within 1.6 km of the Middle Yuba River.

Site[1]	Habitat Feature/ Seasonality/Surface area/ Location[2]	Meets 20-Week Criterion	Description
MYR OC1	Pond, perennial (POWKZ); 875 m^2 UTM 663488 / 4362978	Yes[3]	Emergent vegetation at margin of wetland. Trees and shrubs are overhanging. Not accessible to fish. 7.1 km from nearest known CRLF occurrence and 4.6 km from nearest critical habitat unit.
MYR OC2	Pond, perennial 730 m^2 UTM 664512 / 4360371	Yes[3]	Emergent vegetation limited to pond edge. Trees and shrubs are overhanging. Not accessible to fish. 9.3 km from nearest known CRLF occurrence and 7.0 km from nearest critical habitat unit.
MYR OC3	Stream impoundment, perennial (POWKZ/PSSY); 12,900 m^2 UTM 665052 / 4359938	Yes[3]	Emergent vegetation surrounds pond; patches of dense aquatic vegetation throughout. Trees are overhanging. Appears to drain to Middle Yuba River; may contain fish. 10 km from nearest known CRLF occurrence and 7.7 km from nearest critical habitat unit.
MYR OC4	Pond, seasonal; 2,265 m^2 UTM 663138 / 4359991	?	Emergent vegetation at pond edge; trees and shrubs are overhanging. Not accessible to fish. 8.5 km from nearest known CRLF occurrence and 6.2 km from nearest critical habitat unit.
MYR OC5	Pond, seasonal; 200 m^2 UTM 663710 / 4359532	?	Emergent vegetation at pond edge; trees and shrubs are overhanging. Not accessible to fish. 9.2 km from nearest known CRLF occurrence and 6.9 km from nearest critical habitat unit.
MYR OC6	Pond, seasonal; 180 m^2 UTM 663727 / 4359418	Yes[3]	Patches of emergent vegetation at pond edge; trees and shrubs are overhanging. Not accessible to fish. 9.3 km from nearest known CRLF occurrence and 7 km from nearest critical habitat unit.
MYR OC7	Pond, perennial; 250 m^2 UTM 663726 / 4359385	Yes[3]	Emergent vegetation surrounds pond; patches of dense aquatic vegetation throughout pond. Trees and shrubs are overhanging. Not accessible to fish. 9.4 km from nearest known CRLF occurrence and 7.1 km from nearest critical habitat unit.
MYR OC8	Pond (POWKZ); 466 m^2 UTM 663266 / 4359359	?	Emergent vegetation at pond margin; trees and shrubs are overhanging. Not accessible to fish. 9.1 km from nearest known CRLF occurrence and 6.7 km from nearest critical habitat unit.
MYR OC9	Pond, perennial (POWKZ); 1,093 m^2 UTM 663342 / 4359285	Yes[3]	Emergent vegetation surrounds pond; patches of dense aquatic vegetation throughout pond. Trees and shrubs are overhanging. Not accessible to fish. 9.2 km from nearest known CRLF occurrence and 6.8 km from nearest critical habitat unit.

Table 3.1-1. (continued)

Site[1]	Habitat Feature/ Seasonality/Surface area/ Location[2]	Meets 20-Week Criterion	Description
MYR OC10	Pond, perennial (POWKZ); 2,106 m² UTM 663312 / 4359114	Yes[3]	Emergent vegetation surrounds pond; patches of dense aquatic vegetation throughout pond. Trees and shrubs are overhanging. Not accessible to fish. 9.3 km from nearest known CRLF occurrence and 6.9 km from nearest critical habitat unit.
MYR OC11	Pond (POWKZ); 1,000 m² UTM 662063 / 4359256	?	Emergent vegetation throughout. Trees and shrubs are overhanging. Fish presence unknown. 8.4 km from nearest known CRLF occurrence and 5.9 km from nearest critical habitat unit.

Key: CRLF = California red-legged frog; km = kilometers; m = meters

[1] Land ownership within 1.6 km of project-affected reach: Pink = Private; Dark Yellow = BLM (US Department of the Interior, Bureau of land Management)

[2] UTM = Universal Transverse Mercator (geographic coordinates); National Wetland Inventory mapped wetland classification: POWKZ = palustrine open water; PSSY = palustrine

[3] Evidence of inundation visible on mid to late summer aerial photos from GoogleEarth Pro (2012)

3.2 Oregon Creek and Assessment Area Sites

Oregon Creek is a tributary to the Middle Yuba River with a watershed area of approximately 29.1 mi^2 at Log Cabin Diversion Dam (YCWA 2010). This stream is unlikely to represent potential CRLF habitat because of its size, moderate to steep gradient, influence of snow-melt on flows, and presence of fish. The project-affected reach of Oregon Creek, Log Cabin Diversion Dam Reach, is 4.1 mi long from the confluence with the Middle Yuba River to the Log Cabin Diversion Dam. Seasonal high flows in Oregon Creek are diverted from Log Cabin Diversion Dam Impoundment to New Bullards Bar Reservoir through the Camptonville Diversion Tunnel, which has a maximum diversion capacity of 1,100 cfs. Based on channel classification and habitat mapping performed for the PAD (YCWA 2010), the Log Cabin Diversion Dam Reach of Oregon Creek can be divided into sections and is characterized as follows. Relatively steep (3-8 percent gradient), confined channel type occurs near the downstream end of the reach (approximately 1.0 mi) and below Log Cabin Diversion Dam at the upstream end of the reach (0.5 mi), designated here as Section 3. In between these steeper sections, a lower gradient (1-3 percent), confined section (2.6 mi) occurs through Celestial Valley. There is a short 4.6 percent gradient section just above the confluence with the Middle Yuba River, and a 3.7 percent gradient section upstream of Celestial Valley. Celestial Valley appears to be a long-term depositional area and has an overall gradient of 1.6 percent. The Celestial Valley area is highly modified by human settlement, and channel location has been modified by roads, grazing, berms, and suburban development; the riparian zone is also heavily vegetated with blackberry vines. The stream reach is confined throughout between either terraces or steep valley walls. The steeper sections are dominated by cascades, falls, and plunge pools, whereas the Celestial Valley section is dominated by long planar runs and low gradient riffles, with little three-dimensional heterogeneity. In total, eleven seasonal/intermittent tributaries are located along the reach; five of them occur between RM 1.9 and RM 3.0.

From RM 0.0 to 1.0, the predominant stream habitat types are mid-channel pool, pocket water, and cascades. From RM 1.0 to 3.6, habitat is predominantly low-gradient riffles and mid-channel pools, and runs to a lesser extent. Predominant stream habitat types are mid-channel

pool, pocket water, and low-gradient riffles are predominant from RM 3.6 to Log Cabin Dam. Bankfull width throughout the creek ranges from 5 to 15m. Boulders and cobbles are dominant substrates, with bedrock predominant in higher-gradient sections of the creek. Emergent and aquatic vegetation generally is sparse; margin vegetation consists of patchy grasses/ forbs and shrubs/saplings. Margin vegetation consists of patchy grasses/ forbs.

Maps showing site locations, land ownership, vegetation cover types, and other features are presented in Attachment 7-3A, Parts 5 and 6. Uplands in the Oregon Creek assessment area are characterized by rugged topography near Log Cabin Diversion Dam, and moderate-gradient foothills associated with Celestial Valley. Most of the vegetation cover is mixed conifer/deciduous, with agricultural and rural-residential land use in Celestial Valley. Forests in the assessment area are predominately classified by CALVEG (2010) as Douglas Fir-Ponderosa Pine and Canyon Live Oak, with patches White Alder and Annual Grasses and Forbs in Celestial Valley. Potential impediments to CRLF upland dispersal include areas of steep terrain in the vicinity of Log Cabin Dam. Highway 49 and Ridge Road are the primary paved roads in the assessment area, which are frequently travelled. Numerous other improved and unimproved roads also occur in the assessment area, but are not as heavily traveled as these roads primarily provide access to local residents.

A total of 3 sites within 1.6 km of the project-affected reach of Oregon Creek, all situated on private property, were assessed for potential CRLF breeding habitat, the results of which are presented in Table 3.2-1. Two of the sites were assessed in the field and one from aerial photographs.

Table 3.2-1. Summary of sites (aquatic habitat locations) assessed for potential CRLF breeding habitat within 1.6 km of Oregon Creek.

Site[1]	Habitat Feature/ Seasonality/Surface area/ Location[2]	Field Assessed or From Aerial Imagery	Meets 20-Week Criterion	Description
OC LCDDR1	Emergent wetland, seasonal, perennial; 1,600 m² UTM 666417 / 4364999	Field (from road; 3/5/2012)	?	Shallow emergent wetland; less than 0.1m inundation depth when assessed. Dense soft rush growing throughout wetland. Fish presence unlikely. 9.4 km from nearest known CRLF occurrence; not located within critical habitat unit.
OC LCDDR2	Emergent wetland, perennial; 200m² UTM 666267 / 4364476	Field (from road; 3/5/2012)	Yes	Emergent wetland within floodplain of Oregon Creek; possibly excavated. At least 0.5 m inundation when assessed. Dense duckweed throughout pond; dense shrubs at pond margin. Fish presence unknown. 9.2 km from nearest known CRLF occurrence; not located within critical habitat unit.
OC LCDDR3	Pond, perennial (POWKZ); 3,400 m² UTM 667047 / 4364636	Aerial	Yes[3]	Pond formed on impounded unnamed tributary to Oregon Creek; depth unknown. Emergent vegetation limited to pond margin. Dense trees overhang pond. 9.9 km from nearest known CRLF occurrence; not located within critical habitat unit.

Key: CRLF = California red-legged frog; km = kilometers; m = meters

[1] Land ownership within 1.6 km of project-affected reach: Green = Forest Service (US Department of Agriculture, Forest Service); Pink = Private

[2] UTM = Universal Transverse Mercator (geographic coordinates); National Wetland Inventory mapped wetland classification: POWKZ = palustrine open water

[3] Evidence of inundation visible on mid to late summer aerial photos from GoogleEarth Pro (2012)

3.3 Yuba River and Assessment Area Sites

The Yuba River is a relatively large stream and does not represent potential CRLF breeding habitat, but could be non-breeding aquatic habitat. The project-affected reach of Yuba River within the Study Area consists of: (1) the Narrows 2 Powerhouse Reach (from the normal maximum water surface elevation of the impoundment formed by USACE's Daguerre Point Dam at RM 11.5 to the Narrows 2 Powerhouse at the base of USACE's Englebright Dam at RM 24.0); (2) USACE's Englebright Reservoir (from USACE's Englebright Dam at RM 24.0 to the normal maximum water surface elevation of USACE's Englebright Reservoir at RM 32.2); (3) the New Colgate Powerhouse Reach (from the normal maximum water surface elevation of USACE's Englebright Reservoir at RM 32.2 to the New Colgate Powerhouse at RM 33.9); and (4) the Middle/North Yuba River Reach (from New Colgate Powerhouse at RM 33.9 to the confluence of the North Yuba River with the Middle Yuba River at RM 39.7) (YCWA 2010).

The Narrows 2 Powerhouse Reach has an extensive history of impacts to channel morphology resulting from hydraulic mining activities in the Yuba River watershed (YCWA 2012). From the Narrows 2 Powerhouse downstream for approximately 2.0 RM, the river corridor is confined in a steep-walled bedrock canyon (referred to as The Narrows); transitions first into a wider bedrock valley; and finally into a wide, alluvial valley downstream from approximately RM 19.3 (Wyrick and Pasternack 2012). The average bed channel slope of the thalweg from the upstream end of Timbuctoo Bend (downstream extent of The Narrows) to the confluence with the Feather River is 0.16%, while the average bed channel slope between The Narrows and Englebright Dam is 0.31% (Wyrick and Pasternack 2012). Pools are the dominant in-channel morphological unit in the upstream portion of the reach, whereas riffles, glides and slackwater are dominant in the downstream portions of the reach (Wyrick and Pasternack 2012).

USACE's Englebright Reservoir is a relatively deep reservoir, with still or slow-moving water, and moderate to steeply sloped banks. Licensee's PAD (YCWA 2010) indicates that Englebright Reservoir supports numerous game fish species comparable to those in New Bullards Bar Reservoir and also has a comparable history of fish stocking by California Fish and Game (CDFG). Deep lacustrine water bodies, particularly where fish occur, are not known to provide breeding habitat for CRLF, although adult CRLF have been reported to occur at some reservoirs (USFWS 2002).

The Middle/North Yuba River and New Colgate Powerhouse Reaches are mostly bedrock-controlled, with only very short boulder/cobble sections (YCWA 2010). The channel is laterally and vertically stable due to dominant bedrock control. Sinuosity is very low as there are no plan and profile sections strongly influenced by alluvial deposition. Pools are large and deep, and separated by long sections of pocket-water that runs through and under very large boulders. Though not very steep, according to the mapped gradient of 1.8 percent, high gradient riffles dominate the gradient "steps." The river flows through bedrock canyons, and the vertical walls inhibit ground access. The only location that was ground-mapped was the area just above and below New Colgate Powerhouse (25% of the reach). Habitat is dominated by mid-channel pools and pocket-water formed between large boulders.

Maps showing site locations, land ownership, vegetation cover types, and other features are presented in Attachment 7-3A, Parts 5 and 6. Uplands in the Yuba River assessment area are mainly characterized by low foothills with low-gradient streams. Most of the area is oak savannah. Vegetation in the assessment area below the Narrows 2 Powerhouse is predominantly classified by CALVEG (2010) as Annual Grasses and Forbs; principal forest types are Blue Oak, Gray Pine, and Interior Live Oak. Above Narrows 2 Powerhouse, Interior Live Oak, Ponderosa Pine, Blue Oak, and Gray Pine are the predominant vegetation types. Potential impediments to CRLF upland dispersal include Englebright Reservoir and steep terrain along Yuba River downstream of the Reservoir. Highway 20 is the primary paved road in the assessment area, which is frequently travelled. Scott Forbes Road and Narrows #2 Road, the two other primary paved roads in the assessment area, are not heavily traveled. Numerous other improved and unimproved roads also occur in the assessment area, but are not as heavily traveled as these roads primarily provide access to local residents.

A total of 96 sites within 1.6 km of the project-affected reach of Yuba River, all situated on private property, were assessed from aerial imagery for potential CRLF breeding habitat, the results of which are presented in Table 3.3-1. Assessed sites at the Yuba Goldfields, in the Yuba River Floodplain (YR NTP11, YR NTP25, YR NTP31 through YR NTP35, YR NTP38, and YR NTP62), near Smartsville (YR NTP3 and YR NTP4) and near Birchville (YR MNYR11 through YR MNYR18) are dredged ponds associated with historical mining activities. Other assessed sites are mainly excavated features (ponds) located on rural/residential parcels, and impoundments on tributaries to the Yuba River.

Table 3.3-1. Summary of sites (aquatic habitat locations) assessed from aerial photographs for potential CRLF breeding habitat within 1.6 km of Yuba River.

Site[1]	Habitat Feature/ Seasonality/ Surface area/ Location[2]	Meets 20-Week Criterion	Description
Narrows 2 Powerhouse Reach (RM 11.5 - 24)			
YR NTP1	Yuba River Tributary, perennial (PFOY); UTM 649050 / 4342714	Yes	Aquatic/emergent vegetation presence unknown; dense riparian canopy. Fish use likely. 24.6 km from nearest known CRLF occurrence and 20.9 km from nearest critical habitat unit.
YR NTP2	Pair of ponds, perennial; 408 and 95 m²; UTM 648229 / 4342489	Yes[3]	Emergent vegetation limited to pond margins; small patches of trees and shrubs are overhanging. Not accessible to fish. 25.1 km from nearest known CRLF occurrence and 21.5 km from nearest critical habitat unit.
YR NTP3	Series of ponds, perennial; 14,200 m² combined; UTM 647875 / 4341549	Yes[3]	Series of mine tailing depressions; emergent vegetation surrounds pond margin; scattered aquatic vegetation throughout pond; trees and shrubs are overhanging. Not accessible to fish. 26.1 km from nearest known CRLF occurrence and 22.5 km from nearest critical habitat unit.
YR NTP4	Pond, perennial; 10,912 m²; UTM 647788 / 4341488	Yes[3]	Series of mine tailing depressions; emergent vegetation surrounds pond margin; scattered aquatic vegetation throughout pond; trees and shrubs are overhanging. Not accessible to fish. 26.2 km from nearest known CRLF occurrence and 22.3 km from nearest critical habitat unit.
YR NTP5	Pond, seasonal; 3,072 m²; UTM 647246 / 4341520	No	Emergent vegetation throughout pond; shrubs are overhanging. Not accessible to fish. 26.3 km from nearest known CRLF occurrence and 22.8 km from nearest critical habitat unit.
YR NTP6	Pond, seasonal; 2,572 m²; UTM 647144 / 4341561	Yes[3]	Emergent vegetation limited to pond margin; no overhanging vegetation present. Not accessible to fish. 26.3 km from nearest known CRLF occurrence and 22.8 km from nearest critical habitat unit.

Table 3.1-1. (continued)

Site[1]	Habitat Feature/ Seasonality/ Surface area/ Location[2]	Meets 20-Week Criterion	Description
Narrows 2 Powerhouse Reach (RM 11.5 - 24) (continued)			
YR NTP7	Pond/open water wetland, perennial (POWKZ); 1,715 m²; UTM 646604 / 4340993	Yes[3]	Stream impoundment; emergent vegetation surrounds pond margin; scattered aquatic vegetation throughout pond; trees and shrubs are overhanging. Located along creek and may be accessible to fish. 27.1 km from nearest known CRLF occurrence and 23.5 km from nearest critical habitat unit.
YR NTP8	Pond, perennial; 668 m²; UTM 645818 / 4342002	Yes[3]	Emergent at pond edge; shrubs are overhanging. Not accessible to fish. 26.5 km from nearest known CRLF occurrence and 22.9 km from nearest critical habitat unit.
YR NTP9	Pond, seasonal; 649 m²; UTM 645495 / 4342155	?	Emergent vegetation limited to pond margin; patchy shrubs are overhanging. Not accessible to fish. 26.5 km from nearest known CRLF occurrence and 22.9 km from nearest critical habitat unit.
YR NTP10	Pond, perennial; 1,100 m²; UTM 645401 / 4342230	Yes[3]	Emergent vegetation surrounds pond; trees and shrubs are overhanging. Not accessible to fish. 26.4 km from nearest known CRLF occurrence and 22.9 km from nearest critical habitat unit.
YR NTP11	Open water wetland, perennial (POWKZ); 1,594 m²; UTM 645848 / 4343638	Yes[3]	Mine tailing depression; emergent vegetation at pond margin; patches of shrubs are overhanging. Accessible to fish during high water events on Yuba River. 25.0 km from nearest known CRLF occurrence and 21.5 km from nearest critical habitat unit.
YR NTP12	Pond, perennial; 930 m² ; UTM 644520 / 4342075	Yes[3]	Emergent vegetation limited to pond margin; sparse shrubs are overhanging vegetation. Not accessible to fish. 27.0 km from nearest known CRLF occurrence and 23.5 km from nearest critical habitat unit.
YR NTP13	Pond, seasonal; 455 m²; UTM 643269 / 4342161	?	Emergent vegetation around pond margin; trees and shrubs are overhanging. Not accessible to fish. 27.5 km from nearest known CRLF occurrence and 24.5 km from nearest critical habitat unit.
YR NTP14	Scrub-shrub wetland, perennial (PSSY); 14,526 m²; UTM 643004 / 4342111	Yes[3]	Stream impoundment; emergent vegetation surrounds pond; patches of dense aquatic vegetation throughout pond during summer months. Shrubs are overhanging. May be accessible to fish. 27.7 km from nearest known CRLF occurrence and 24.3 km from nearest critical habitat unit.
YR NTP15	Series of ponds, perennial; 23,500 m² combined; UTM 643265 / 4341827	Yes[3]	Series of stream impoundments; emergent vegetation surrounds pond margin; scattered aquatic vegetation throughout pond; trees and shrubs are overhanging. May be accessible to fish. 27.8 km from nearest known CRLF occurrence and 24.4 km from nearest critical habitat unit.
YR NTP16	Pond, perennial; 1,980 m²; UTM 643270 / 4341558	Yes[3]	Emergent vegetation limited to pond margin; trees and shrubs are overhanging. Not accessible to fish. 28.0 km from nearest known CRLF occurrence and 24.6 km from nearest critical habitat unit.
YR NTP17	Pond, perennial; 4,650 m²; UTM 643567 / 431395	Yes[3]	Emergent vegetation limited to pond margin; overhanging vegetation are scattered shrubs. Not accessible to fish. 28.0 km from nearest known CRLF occurrence and 24.5 km from nearest critical habitat unit.
YR NTP18	Open water wetland, perennial (POWKZ); 12,176 m²; UTM 643444 / 4341391	Yes[3]	Stream impoundment; emergent vegetation surrounds pond margin; scattered aquatic vegetation throughout pond; trees and shrubs are overhanging. Fish presence unknown. 28.1 km from nearest known CRLF occurrence and 24.6 km from nearest critical habitat unit.
YR NTP19	Pond, perennial; 335 m² UTM 642706 / 4341740	Yes[3]	Emergent vegetation limited to pond margin; trees and shrubs are overhanging. Not accessible to fish. 28.1 km from nearest known CRLF occurrence and 24.7 km from nearest critical habitat unit.
YR NTP20	Pond, perennial; 6,441 m²; UTM 642376 / 4341724	Yes[3]	Emergent vegetation surrounds pond margin; scattered aquatic vegetation throughout pond; no overhanging vegetation present. Not accessible to fish. 28.3 km from nearest known CRLF occurrence and 24.9 km from nearest critical habitat unit.
YR NTP21	Pond, perennial; 12,537 m²; UTM 642280 / 4341865	Yes[3]	Emergent vegetation surrounds pond margin; scattered aquatic vegetation throughout pond; very little overhanging vegetation. Not accessible to fish. 28.0 km from nearest known CRLF occurrence and 24.8 km from nearest critical habitat unit.

Table 3.3-1. (continued)

Site[1]	Habitat Feature/ Seasonality/ Surface area/ Location[2]	Meets 20-Week Criterion	Description
Narrows 2 Powerhouse Reach (RM 11.5 - 24) (continued)			
YR NTP22	Pair of ponds, perennial; 10,000 m² combined; UTM 641096 / 4343011	Yes[3]	Emergent vegetation surrounds pond margins; scattered aquatic vegetation throughout ponds; scattered shrubs and trees are overhanging. Not accessible to fish. 28.0 km from nearest known CRLF occurrence and 24.6 km from nearest critical habitat unit.
YR NTP23	Pond, seasonal, 154 m²; UTM 641310 / 4342803	Yes[3]	Emergent vegetation limited to pond margin; trees and shrubs are overhanging. Not accessible to fish. 28.0 km from nearest known CRLF occurrence and 24.6 km from nearest critical habitat unit.
YR NTP24	Pond, perennial, 500 m²; UTM 641253 / 4342777	Yes[3]	Emergent vegetation limited to pond margin; trees and shrubs are overhanging. Not accessible to fish. 28.0 km from nearest known CRLF occurrence and 24.6 km from nearest critical habitat unit.
YR NTP25	Open water wetland, perennial (POWY); 14,168 m²; UTM 641161 / 4342585	Yes[3]	Likely mine tailing depression; emergent vegetation at pond margin; sparse shrubs and trees overhanging. Accessible to fish during high water events on Yuba River. 28.3 km from nearest known CRLF occurrence and 24.9 km from nearest critical habitat unit.
YR NTP26	Pond, perennial; 590 m²; UTM 642684 / 4343513	Yes[3]	Emergent vegetation throughout pond; trees and shrubs are overhanging. Has seasonal connection to Yuba River; fish use possible. 26.6 km from nearest known CRLF occurrence and 23.2 km from nearest critical habitat unit.
YR NTP27	Pond, perennial; 2,348 m²; UTM 642672 / 4343744	Yes[3]	Emergent vegetation limited to pond margin; patches of trees and shrubs are overhanging. Not accessible to fish. 26.4 km from nearest known CRLF occurrence and 23.1 km from nearest critical habitat unit.
YR NTP28	Pond, perennial; 2,256 m²; UTM 642284 / 4344210	Yes[3]	Emergent vegetation surrounds pond margin; scattered aquatic vegetation throughout pond; sparse shrubs are overhanging. Not accessible to fish. 26.3 km from nearest known CRLF occurrence and 22.9 km from nearest critical habitat unit.
YR NTP29	Pond, perennial; 1,261 m²; UTM 643235 / 4344148	Yes[3]	Emergent vegetation presence unknown; trees and shrubs are overhanging. Not accessible to fish. 25.8 km from nearest known CRLF occurrence and 22.4 km from nearest critical habitat unit.
YR NTP30	Emergent wetland, perennial (PEMY); 14,000 m²; UTM 641013 / 4343420	Yes[3]	Dense emergent vegetation throughout wetland; scattered overhanging shrubs present. Not accessible to fish. 27.6 km from nearest known CRLF occurrence and 24.3 km from nearest critical habitat unit.
YR NTP31	Series of three open water wetlands, perennial (POWY); total area approximately 11,700m² UTM 640768 / 4342550	Yes[3]	Mine tailing depression; emergent vegetation limited to sparse patches on margin; scattered overhanging shrubs present. Accessible to fish during high water events on Yuba River. 28.5 km from nearest known CRLF occurrence and 25.2 km from nearest critical habitat unit.
YR NTP32	Pond, perennial; 1,524 m²; UTM 640606 / 4342695	Yes[3]	Mine tailing depression; emergent vegetation around pond margin; trees and shrubs are overhanging. Part of series of mine tailings. Accessible to fish during high water events on Yuba River. 28.5 km from nearest known CRLF occurrence and 25.1 km from nearest critical habitat unit.
YR NTP33	Pond, perennial; 10,404 m²; UTM 640487 / 4342742	Yes[3]	Mine tailing depression; emergent vegetation at pond margin; trees and shrubs are overhanging (mostly on north side of pond). Accessible to fish during high water events on Yuba River. 28.5 km from nearest known CRLF occurrence and 25.2 km from nearest critical habitat unit.
YR NTP34	Open water wetland, perennial (POWY); 14,700 m²; UTM 640307 / 4342683	Yes[3]	Mine tailing depression; emergent vegetation limited to sparse patches at margin; sparse shrubs and trees are overhanging. Accessible to fish during high water events on Yuba River. 28.7 km from nearest known CRLF occurrence and 25.4 km from nearest critical habitat unit.
YR NTP35	Pond, perennial; 500 m². UTM 639991 / 4342740	Yes[3]	Mine tailing depression; emergent vegetation limited to pond margin; trees and shrubs are overhanging (mostly on north side of pond). Accessible to fish during high water events on Yuba River. 28.8 km from nearest known CRLF occurrence and 25.7 km from nearest critical habitat unit.

Table 3.3-1. (continued)

Site[1]	Habitat Feature/ Seasonality/ Surface area/ Location[2]	Meets 20-Week Criterion	Description
Narrows 2 Powerhouse Reach (RM 11.5 - 24) (continued)			
YR NTP36	Pond, seasonal; 335 m²; UTM 640519 / 4341645	?	Emergent vegetation around pond perimeter; no overhanging vegetation present. May be accessible to fish during high water events. 29.4 km from nearest known CRLF occurrence and 26.1 km from nearest critical habitat unit.
YR NTP37	Pond, perennial; 3,200 m²; UTM 639940 / 4342040	Yes[3]	Stream impoundment; scattered emergent vegetation around pond perimeter; trees and shrubs are overhanging. Fish accessibility unknown. 29.4 km from nearest known CRLF occurrence and 26.1 km from nearest critical habitat unit.
YR NTP38	Open water wetland, perennial (POWY); 7,892 m²; UTM 639983 / 4342170	Yes[3]	Mine tailing depression; emergent vegetation surrounds pond; patches of dense aquatic vegetation throughout pond during summer months. Trees and shrubs are overhanging. Accessible to fish during high water events on Yuba River. 29.3 km from nearest known CRLF occurrence and 22.9 km from nearest critical habitat unit.
YR NTP39	Pond, perennial; 202 m²; UTM 639959 / 4342317	Yes[3]	Possible abandoned side channel of Yuba River; emergent vegetation unknown; dense tree and shrub canopy. Accessible to fish during high water events on Yuba River. 29.2 km from nearest known CRLF occurrence and 25.9 km from nearest critical habitat unit.
YR NTP40	Pair of ponds, perennial; 3,700 m² combined; UTM 639692 / 4341269	Yes[3]	Stream impoundments; emergent vegetation limited to pond margins; sparse trees and shrubs are overhanging. Fish presence unknown. 30.2 km from nearest known CRLF occurrence and 26.9 km from nearest critical habitat unit.
Narrows 2 Powerhouse Reach (RM 11.5 - 24) (continued)			
YR NTP41	Pond, perennial; 400 m²; UTM 639400 / 4341720	Yes[3]	Emergent vegetation limited to pond margin; sparse trees and shrubs are overhanging. Fish presence unknown. 29.9 km from nearest known CRLF occurrence and 26.7 km from nearest critical habitat unit.
YR NTP42	Open water wetland, perennial (POWKZ); 15,000 m²; UTM 639225 / 4341477	Yes[3]	Stream impoundment; emergent vegetation surrounds pond margin; scattered aquatic vegetation throughout pond; trees and shrubs are overhanging. Fish presence unknown. 30.2 km from nearest known CRLF occurrence and 27 km from nearest critical habitat unit.
YR NTP43	Emergent wetland, perennial (PEMY); 7,136 m²; UTM 638699 / 4341623	Yes[3]	Stream impoundment; emergent vegetation surrounds pond margin; scattered aquatic vegetation throughout pond; overhanging shrubs and trees present. Fish presence unknown. 30.5 km from nearest known CRLF occurrence and 27.2 km from nearest critical habitat unit.
YR NTP44	Open water wetland, perennial (POWKY); 10,000 m². UTM 637740 / 4340855	Yes[3]	Emergent vegetation surrounds pond margin; scattered aquatic vegetation throughout pond; sparse overhanging shrubs and trees present. Not accessible to fish. 31.7 km from nearest known CRLF occurrence and 28.4 km from nearest critical habitat unit.
YR NTP45	Forested wetland on Dry Creek, perennial (PFOY); at least 200,000m² UTM 637694 / 4343211	Yes[3]	In floodplain of Dry Creek; emergent vegetation unknown; dense overhanging trees and shrubs present. Accessible to fish. 29.9 km from nearest known CRLF occurrence and 26.7 km from nearest critical habitat unit.
YR NTP46	Emergent wetland, perennial (PEMY); 2,000 m²; UTM 637525 / 4343467	Yes[3]	Stream impoundment; dense emergent vegetation in wetland; trees and shrubs are overhanging. Fish presence unknown. 29.8 km from nearest known CRLF occurrence and 26.6 km from nearest critical habitat unit.
YR NTP47	Emergent wetland, perennial (PEMY); 25,000 m²; UTM 637205 / 4343969	Yes[3]	Stream impoundment; dense emergent vegetation surrounds pond margin; patches of dense aquatic vegetation throughout pond; trees and shrubs are overhanging. Fish presence unknown. 29.6 km from nearest known CRLF occurrence and 26.5 km from nearest critical habitat unit.
YR NTP48	Open water wetland, perennial (PFOY/POWY); 24,987 m²; UTM 636797 / 4342417	Yes[3]	Dense emergent vegetation surrounds pond margin; patches of dense aquatic vegetation throughout pond; overhanging shrubs and trees present. Accessible to fish. 31.2 km from nearest known CRLF occurrence and 27 km from nearest critical habitat unit.

Table 3.3-1. (continued)

Site[1]	Habitat Feature/ Seasonality/ Surface area/ Location[2]	Meets 20-Week Criterion	Description
Narrows 2 Powerhouse Reach (RM 11.5 - 24) (continued)			
YR NTP49	Pond, seasonal; 2,267 m²; UTM 636647 / 4342355	?	Emergent vegetation throughout pond; trees and shrubs are overhanging. Accessible to fish during high water events on Yuba River. 31.2 km from nearest known CRLF occurrence and 28 km from nearest critical habitat unit.
YR NTP50	Pond, seasonal; 2,203 m²; UTM 635598 / 4342774	?	Emergent vegetation throughout; scattered shrubs are overhanging (mostly west side of pond). Not accessible to fish. 31.6 km from nearest known CRLF occurrence and 28.5 km from nearest critical habitat unit.
YR NTP51	Pond, seasonal; 819 m²; UTM 635347 / 4342797	?	Emergent vegetation throughout pond; no overhanging vegetation. Not accessible to fish. 31.7 km from nearest known CRLF occurrence and 28.6 km from nearest critical habitat unit.
YR NTP52	Pond, seasonal; 468 m²; UTM 635248 / 4342796	Yes[3]	Emergent vegetation at pond margin; shrubs are overhanging. Not accessible to fish. 31.8 km from nearest known CRLF occurrence and 28.7 km from nearest critical habitat unit.
YR NTP53	Forested wetland, perennial (PFOY); 26,000 m²; UTM 635736 / 4342155	Yes[3]	Side channel/meander on Yuba River; dense patches of emergent vegetation visible; dense overhanging trees and shrubs present. Accessible to fish during high water events on Yuba River. 32.7 km from nearest known CRLF occurrence and 29.6 km from nearest critical habitat unit.
YR NTP54	Pond, perennial; 1,479 m²; UTM 634928 / 4342133	Yes[3]	Emergent vegetation at pond perimeter; patches of aquatic vegetation present; shrubs are overhanging. Fish presence unknown. 32.5 km from nearest known CRLF occurrence and 29.4 km from nearest critical habitat unit.
YR NTP55	Pond, perennial; 1,047 m²; UTM 634843 / 4342006	Yes[3]	Emergent vegetation at pond perimeter; patches of aquatic vegetation present; sparse shrubs are overhanging. Fish presence unknown. 32.6 km from nearest known CRLF occurrence and 29.5 km from nearest critical habitat unit.
YR NTP56	Forested wetland, perennial (PFOY); 65,596 m²; UTM 634870 / 4341894	Yes[3]	Side channel/meander on Yuba River patches of dense emergent vegetation visible; dense overhanging trees and shrubs present. Accessible to fish. 32.7 km from nearest known CRLF occurrence and 29.6 km from nearest critical habitat unit.
YR NTP57	Open water wetland, perennial (POWKZ); 11,989 m²; UTM 634483 / 4341963	Yes[3]	Emergent vegetation at pond perimeter; patches of aquatic vegetation present; sparse overhanging shrubs. Fish presence unknown. 32.9 km from nearest known CRLF occurrence and 29.8 km from nearest critical habitat unit.
YR NTP58	Pond, perennial; 5,000m² UTM 634496 / 4341783	Yes[3]	Emergent vegetation at pond perimeter; patches of aquatic vegetation present; sparse overhanging shrubs. Fish presence unknown. 33.1 km from nearest known CRLF occurrence and 29.9 km from nearest critical habitat unit.
YR NTP59	Pond, perennial; 2,144 m²; UTM 633425 / 4341566	Yes[3]	Emergent vegetation at pond perimeter; patches of aquatic vegetation present; sparse overhanging shrubs. Not accessible to fish. 34.1 km from nearest known CRLF occurrence and 31.0 km from nearest critical habitat unit.
YR NTP60	Pond, perennial; 8,951 m²; UTM 633273 / 4341506	Yes[3]	Emergent vegetation at pond perimeter; patches of aquatic vegetation present; sparse overhanging shrubs. Not accessible to fish. 34.1 km from nearest known CRLF occurrence and 31.0 km from nearest critical habitat unit.
YR NTP61	Pond, perennial; 9,000 m². UTM 633088 / 4341237	Yes[3]	Patches of dense emergent vegetation visible; dense overhanging trees and shrubs. Accessible to fish; pond has connection to water diversion from Daguerre Point Dam. 34.4 km from nearest known CRLF occurrence and 31.3 km from nearest critical habitat unit.
YR NTP62	Pond, perennial; 11,000 m²; UTM 633383 / 4341005	Yes[3]	Mine tailing depression; scattered patches of emergent vegetation at pond margins; patches of dense aquatic vegetation during summer months; trees and shrubs are overhanging. May be accessible to fish during high flows on Yuba River. 34.4 km from nearest known CRLF occurrence and 31.3 km from nearest critical habitat unit.

Table 3.3-1. (continued)

Site[1]	Habitat Feature/ Seasonality/ Surface area/ Location[2]	Meets 20-Week Criterion	Description
Englebright Reservoir Reach (RM 24- 32.2)			
Yuba Goldfields	Series of ponds and canals, perennial, ≥ 2 km^2, UTM 636135/ 4341484	Yes[3]	Interconnected ponds and canals formed out of dredger re-processing of the Yuba River corridor. Emergent vegetation ranges from negligible to narrow bands around pond perimeters. Overhanging vegetation ranges from small patches of trees to narrow bands of trees around pond and canal perimeters. An outlet canal downstream of Daguerre Point Dam (Waterway 13) is likely to attract migrating fish into the Yuba Goldfields during higher flows (National Marine Fisheries Service 2012). 31.1 km from nearest known CRLF occurrence and 29.1 km from nearest critical habitat unit.
YR ER1	Pond, seasonal; 242 m²; UTM 654398 / 439708	?	Emergent vegetation throughout pond; trees and shrubs are overhanging. Not accessible to fish. 16.5 km from nearest known CRLF occurrence and 12.9 km from nearest critical habitat unit.
YR ER2	Pond, perennial; 715 m²; UTM 654461 / 4349393	Yes[3]	Emergent vegetation around pond margin; trees and shrubs are overhanging. Not accessible to fish. 16.8 km from nearest known CRLF occurrence and 13.2 km from nearest critical habitat unit.
YR ER3	Pond, seasonal; 190 m²; UTM 654461 / 4349393	?	Emergent vegetation throughout pond; trees and shrubs are overhanging. Not accessible to fish. 17.3 km from nearest known CRLF occurrence and 13.8 km from nearest critical habitat unit.
YR ER4	Pond, seasonal; 119 m²; UTM 652996 / 4349170	?	Emergent vegetation throughout; trees and shrubs are overhanging. Not accessible to fish. 17.3 km from nearest known CRLF occurrence and 13.6 km from nearest critical habitat unit.
YR ER5	Pond, seasonal; 1,200m^2 UTM 652190 / 4349024	?	Emergent vegetation throughout pond; trees and shrubs are overhanging. Not accessible to fish. 17.6 km from nearest known CRLF occurrence and 14.0 km from nearest critical habitat unit.
YR ER6	Pond, perennial; 1,100 m²; UTM 651583 / 4348842	Yes[3]	Emergent vegetation at pond perimeter; patches of aquatic vegetation present; sparse overhanging shrubs. Not accessible to fish. 18.0 km from nearest known CRLF occurrence and 14.4 km from nearest critical habitat unit.
YR ER7	Stream, perennial (Yuba River Tributary; PFOY); UTM 651597 / 4348511	Yes	Aquatic/emergent vegetation presence unknown; dense riparian canopy. Fish presence unknown. 18.3 km from nearest known CRLF occurrence and 14.7 km from nearest critical habitat unit.
YR ER8	Pond, perennial; 400 m²; UTM 650726 / 4348204	Yes[3]	Sparse emergent vegetation limited to pond margins; sparse trees and shrubs are overhanging. Not accessible to fish. 18.8 km from nearest known CRLF occurrence and 15.3 km from nearest critical habitat unit.
YR ER9	Pond, seasonal; 110 m²; UTM 651088 / 4348186	?	Sparse emergent vegetation at pond margin; no overhanging trees and shrubs. Not accessible to fish. 18.7 km from nearest known CRLF occurrence and 15.2 km from nearest critical habitat unit.
YR ER10	Pond, perennial; 740 m²; UTM 651160 / 4348089	Yes[3]	Emergent vegetation at pond perimeter; patches of aquatic vegetation present; sparse overhanging shrubs. Not accessible to fish. 18.8 km from nearest known CRLF occurrence and 15.2 km from nearest critical habitat unit.
YR ER11	Pond, perennial; 950 m^2; UTM 651189 / 4348026	Yes[3]	Emergent vegetation at pond perimeter; patches of aquatic vegetation present; patches of overhanging shrubs. Not accessible to fish. 18.9 km from nearest known CRLF occurrence and 15.3 km from nearest critical habitat unit.
YR ER12	Pond, seasonal; 60m^2; UTM 651274 / 4348048	?	Emergent vegetation throughout pond; no overhanging vegetation present. Not accessible to fish. 18.8 km from nearest known CRLF occurrence and 15.2 km from nearest critical habitat unit.
YR ER13	Pond, perennial; 625 m²; UTM 651216 / 4346433	Yes[3]	Emergent vegetation at pond margin; patches of trees and shrubs are overhanging. Not accessible to fish. 20.4 km from nearest known CRLF occurrence and 16.8 km from nearest critical habitat unit.
YR ER14	Stream, perennial (Yuba River Tributary; PFOY); UTM 651139 / 4346206	Yes	Aquatic/emergent vegetation presence unknown; dense riparian canopy. Likely accessible to fish. 20.6 km from nearest known CRLF occurrence and 17.0 km from nearest critical habitat unit.

Table 3.3-1. (continued)

Site[1]	Habitat Feature/ Seasonality/ Surface area/ Location[2]	Meets 20-Week Criterion	Description
New Colgate Power House Reach (RM 32.2-33.9)			
YR NCPH1	Pond, perennial; 11,200 m². UTM 653803 / 4353611	Yes[3]	Emergent vegetation at pond perimeter; patches of dense aquatic vegetation present; patches of trees and shrubs are overhanging. Not accessible to fish. 12.8 km from nearest known CRLF occurrence and 9.2 km from nearest critical habitat unit.
Middle/North Yuba River Reach (RM 33.9-39.7)			
YR MNYR1	Pond, perennial; 820 m²; UTM 661186 / 4358744	Yes[3]	Emergent vegetation at pond margin; trees and shrubs are overhanging. Not accessible to fish. 8.3 km from nearest known CRLF occurrence and 5.5 km from nearest critical habitat unit.
YR MNYR2	Pond, seasonal; 250 m²; UTM 661261 / 4358750	?	Emergent vegetation throughout pond; trees and shrubs are overhanging. Not accessible to fish. 8.3 km from nearest known CRLF occurrence and 5.5 km from nearest critical habitat unit.
YR MNYR3	Pond, perennial; 2,600 m². UTM 661160 / 4358586	Yes[3]	Emergent vegetation at pond perimeter; trees and shrubs are overhanging. Not accessible to fish. 8.4 km from nearest known CRLF occurrence and 5.6 km from nearest critical habitat unit.
YR MNYR4	Pond, perennial; 488 m²; UTM 661393 / 4358531	Yes[3]	Patches of emergent vegetation at pond perimeter; trees and shrubs are overhanging. Not accessible to fish. 8.6 km from nearest known CRLF occurrence and 5.8 km from nearest critical habitat unit.
YR MNYR5	Open water wetland, perennial (POWZ); 8,500 m²; UTM 661375 / 4358305	Yes[3]	Emergent vegetation at pond margin; scattered aquatic vegetation present; trees and shrubs are overhanging. Not accessible to fish. 8.8 km from nearest known CRLF occurrence and 5.9 km from nearest critical habitat unit.
YR MNYR6	Pond, perennial; 2,716 m²; UTM 661299 / 4358119	Yes[3]	Dense emergent vegetation around pond perimeter; trees and shrubs are overhanging. Not accessible to fish. 8.9 km from nearest known CRLF occurrence and 6.0 km from nearest critical habitat unit.
YR MNYR7	Open water wetland, perennial (POWKZ); 41,179 m²; UTM 661415 / 4358049	Yes[3]	Emergent vegetation around pond perimeter; trees and shrubs are overhanging. Not accessible to fish. 9.0 km from nearest known CRLF occurrence and 6.1 km from nearest critical habitat unit.
YR MNYR8	Open water wetland, perennial (POWKZ); 48,300 m²; UTM 660551/ 4355949	Yes[3]	Emergent vegetation at pond margin; scattered aquatic vegetation present; patches of trees and shrubs are overhanging. Not accessible to fish. 10.8 km from nearest known CRLF occurrence and 7.8 km from nearest critical habitat unit.
YR MNYR9	Stream, perennial (Yuba River Tributary, PFOY); UTM 660197 / 4355684	Yes[3]	Aquatic/emergent vegetation presence unknown; dense riparian canopy. Likely accessible to fish. 9.8 km from nearest known CRLF occurrence and 6.6 km from nearest critical habitat unit.
YR MNYR10	Pond, perennial; 4,696 m²; UTM 659772 / 4355160	Yes[3]	Sparse emergent vegetation at pond margin; no overhanging vegetation present. Not accessible to fish. 11.1 km from nearest known CRLF occurrence and 7.7 km from nearest critical habitat unit.
YR MNYR11	Pond, perennial; 291 m²; UTM 659993 / 4355156	Yes[3]	Mine tailing depression; emergent vegetation at pond perimeter; shrubs are overhanging. Not accessible to fish. 11.2 km from nearest known CRLF occurrence and 7.8 km from nearest critical habitat unit.
YR MNYR12	Pond, perennial; 2,716 m²; UTM 659733 4355073	Yes[3]	Mine tailing depression; sparse emergent vegetation at pond margin; no overhanging vegetation present. Not accessible to fish. 11.2 km from nearest known CRLF occurrence and 7.8 km from nearest critical habitat unit.
YR MNYR13	Pond, perennial; 951 m²; UTM 659563 / 4354853	Yes[3]	Mine tailing depression; sparse emergent vegetation at pond margin; scattered overhanging shrubs. Not accessible to fish. 11.8 km from nearest known CRLF occurrence and 7.8 km from nearest critical habitat unit.
YR MNYR14	Series of ponds, perennial; 29,760 m² combined; UTM 659443 / 4354781	Yes[3]	Mine tailing depressions; emergent vegetation around pond perimeters; aquatic vegetation present; trees and shrubs are overhanging. Not accessible to fish. 11.0 km from nearest known CRLF occurrence and 8.4 km from nearest critical habitat unit.

Table 3.3-1. (continued)

Site[1]	Habitat Feature/ Seasonality/ Surface area/ Location[2]	Meets 20-Week Criterion	Description
Middle/North Yuba River Reach (RM 33.9-39.7) (continued)			
YR MNYR15	Pond, perennial; 2,000 m²; UTM 657342 / 4353924	Yes[3]	Mine tailing depression; emergent vegetation around pond perimeter; aquatic vegetation present; trees and shrubs are overhanging. Not accessible to fish. 11.3 km from nearest known CRLF occurrence and 8.5 km from nearest critical habitat unit.
YR MNYR16	Pond, perennial (POWKY); 2,010 m²; UTM 659916 / 4355002	Yes[3]	Mine tailing depression; emergent vegetation around pond perimeter; aquatic vegetation present; trees and shrubs are overhanging. Not accessible to fish. 11.3 km from nearest known CRLF occurrence and 8.2 km from nearest critical habitat unit.
YR MNYR17	Pond, perennial (POWZ); 25,530 m²; UTM 659340/ 4354601	Yes[3]	Mine tailing depression; emergent vegetation around pond perimeter; aquatic vegetation present; trees and shrubs are overhanging. Not accessible to fish. 8.1 km from nearest known CRLF occurrence and 11.8 km from nearest critical habitat unit.
YR MNYR18	Pond, perennial (POWKZ); 4,305 m²; UTM 659284 / 4353960	Yes[3]	Mine tailing depression; emergent vegetation around pond perimeter; aquatic vegetation present; trees and shrubs are overhanging. Not accessible to fish. 12.3 km from nearest known CRLF occurrence and 8.6 km from nearest critical habitat unit.

Key: CRLF = California red-legged frog; km = kilometers

[1] Land ownership within 1.6 km of project-affected reach: Pink = Private; Pale Yellow = BLM (United States Department of the Interior, Bureau of Land Management)/Private combined ownership; Dark Yellow = BLM

[2] UTM = Universal Transverse Mercator (geographic coordinates); National Wetland Inventory mapped wetland classification: POWKZ = palustrine open water

[3] Evidence of inundation visible on mid to late summer aerial photos from GoogleEarth Pro (2012)

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