CALIFORNIA COASTAL COMMISSION
45 FREMONT STREET, SUITE 2000
SAN FRANCISCO, CA 94105- 2219
VOICE (415) 904- 5200
FAX (415) 904- 5400
TDD (415) 597-5885

M E M O R A N D U M

TO: Tom Luster, Senior Environmental Scientist

FROM: Laurie Koteen, Ph.D., Ecologist

RE: Cambria Community Services District Long-term Water Facility Project Site ESHA Determination

DATE: January 15, 2019

Documents Reviewed:

Bulger, J. B., Scott, N. J., & Seymour, R. B. (2003). Terrestrial activity and conservation of adult California red-legged frogs Rana aurora draytonii in coastal forests and grasslands. *Biological Conservation*, 110(1), 85-95.

Cambria Community Services District, Revised Final Environmental Impact Report for Cambria Sustainable Water Supply Facility, July 2017.

Cleveland, Cindy, December 17, 2015, California Steelhead Trout and Tidewater Goby Visual Surveys for the Cambria Community Services District Emergency Water Supply Project, Appendix F of the Cambria Sustainable Water Facility Project Adaptive Management Plan.

Cleveland, Cindy, December 10, 2015, Final 2015 California Red-legged Frog Field Survey for the Cambria Community Services District Emergency Water Supply Project, Appendix F of the Cambria Sustainable Water Facility Project Adaptive Management Plan.

Fellers, G. M., & Kleeman, P. M. (2007). California red-legged frog (Rana draytonii) movement and habitat use: Implications for conservation. *Journal of Herpetology, 41*(2), 276-286.

Gruber, Jerome D. and Robert Gresens, November 19, 2015, Cambria Community Services District Groundwater Management Plan.

Henry, Stephen P., USFWS, Letter to: Bob Gresens, re: Initial Study/ Mitigated Negative Declaration for the Cambria Emergency Water Supply Project, Cambria Community Services District, Cambria, San Luis Obispo County, CA, July 22, 2014.

Michael Baker International, (2016), Cambria Sustainable Water Facility Project, prepared for Cambria Community Services District Environmental Impact Report, Section 5.3, Biological Resources.

Michael Baker International (2017), Cambria Community Sustainable Water Facility Project, San Luis Obispo County, California, Adaptive Management Plan, Prepared For: Cambria Community Services District.

Rathbun, et. al (1993), Status and ecology of sensitive aquatic vertebrates in lower San Simeon and Pico Creeks, San Luis Obispo County, California, Final Report under Cooperative Agreement 14-16-0009-91-1909 between U.S. Fish and Wildlife Service and California Department of Parks and Recreation.

Tatarian, P. J. (2008). Movement patterns of California red-legged frogs (Rana draytonii) in an inland California environment. *Herpetological Conservation and Biology*, 3(2), 155-169.

US Fish and Wildlife Service, (2005), Revised Guidance on Site Assessments and Field Surveys for the California Red-legged Frog.

US Fish and Wildlife Service, (2010), 50 CFR Part 17, Endangered and Threatened Wildlife and Plants: Revised Designation of Critical Habitat for California Red-Legged Frog; Final Rule, Federal Register / Vol. 75, No. 51.

Introduction

The Cambria Community Services District is proposing a long-term water facility on an approximately 96-acre parcel of District property in an effort to increase the local water supply. Prior to May 2014, the proposed project site included some limited District water supply and water treatment facilities, such as wells, waste water treatment ponds, and percolation basins, but was otherwise largely undeveloped. In 2014, pursuant to an emergency coastal development permit ("ECDP")[1] issued by the County of San Luis Obispo, the District constructed a temporary emergency water supply project meant to be used during the declared drought that existed at that time and during District-declared water shortages. As part of the District's application for the follow-up CDP that is required to allow an emergency development to remain beyond the emergency period, the District has proposed modifying some of the emergency project components, adding new components, and ultimately retaining them as a long-term water supply facility. The District prepared an Environmental Impact Report (EIR) that the County is using in its consideration of the follow-up CDP. The existing and proposed projects are within the County's certified Local Coastal Program ("LCP") jurisdiction and also within the Coastal Commission's appeal jurisdiction. As part of the review, the District and the County requested Coastal Commission staff to provide guidance as to whether the project site includes Environmentally Sensitive Habitat Areas ("ESHA") that may be affected by the proposed project. This memo evaluates that question.

[1] ECDPs authorize development only temporarily as required to abate an identified emergency, and such temporary authorization requires that it be authorized by a follow-up regular coastal development permit ("CDP") processed in accordance with all LCP and/or Coastal Act requirements. In addition, if desired to be retained, such as in this case, such emergency development is not authorized past that emergency abatement time-frame without a follow-up regular CDP processed in accordance with all such requirements.

The project site is bounded to the south and east by San Simeon Creek, to the north by San Simeon Creek Road, and to the west by Van Gordon Creek Road (see Figure 1). Just beyond Van Gordon Creek Road is San Simeon State Park, State Highway 1, San Simeon Lagoon and the Pacific Ocean. Van Gordon Creek bisects the property, running north to south, and is a tributary of San Simeon Creek. Portions of both creeks dry up during the summer months of most years, with San Simeon Creek the larger and more enduring of the two. The District proposes to repurpose an evaporation basin temporarily constructed under the ECDP to instead be used as a surface water storage reservoir, to construct a new surface water treatment plant, to extend an existing water pipeline, and to install additional monitoring wells and pipelines (see Figure 2). However, the entire project site (and much of the surrounding area) was designated in 2010 by the United States Fish and Wildlife Service (USFWS) as critical habitat for the federally threatened California red-legged frog (CRLF), *Rana draytonii*[2] and therefore qualifies as ESHA pursuant to the County LCP (see discussion below).

I visited the project site on September 24th, 2018 and was able to observe that suitable breeding, dispersal, and foraging habitat for CLRF exists on and off the project site. The federally endangered tidewater goby, *Eucyclogobius newberryi,* and the federally threatened South-Central California Coast steelhead, *Oncorhynchus mykiss irideus,* have also been observed in San Simeon Creek and Lagoon adjacent to the project site. Western pond turtle, *Emys marmorata,* a species of special concern, was also observed in these areas in recent surveys. I have been asked to determine if the project site, or portions of it, should be considered as ESHA under the San Luis Obispo County LCP.

Applying the ESHA definition

The San Luis Obispo County LCP defines ESHA as:[3]

> *A type of Sensitive Resource Area where plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could easily be disturbed or degraded by human activities and development. They include, but are not limited to, known wetlands, coastal streams and riparian vegetation, terrestrial and marine habitats that may not be mapped as Land Use Element combining designations. The existence of Unmapped ESHA is determined by the County at or before the time of application acceptance and shall be based on the best available information. Unmapped ESHA includes but is not limited to:*
>
> *(1) Areas containing features or natural resources when identified by the County or County approved expert as having equivalent characteristics and natural function as mapped other environmental sensitive habitat areas;*
>
> *(2) Areas previously known to the County from environmental experts, documents or recognized studies as containing ESHA resources;*
>
> *(3) Other areas commonly known as habitat for species determined to be threatened, endangered, or otherwise needing protection.*

[2] See federal Endangered Species Act, 16 U.S.C. 1531 *et seq.*, which defines "critical habitat" as including specific areas within the range of the listed species that include physical or biological features essential to the conservation of the species.

[3] See San Luis Obispo County Land Use Ordinance, Section 23.11 *et seq.*, Definitions.

This definition provides the standards for why the entire project site should be considered ESHA. I shall enumerate my reasoning in the discussion that follows. First, some areas on and bordering the project site consist of "wetlands, coastal streams, and riparian vegetation" and are therefore already categorically considered ESHA, as noted in the above-referenced LCP definition.[4] This includes the riparian areas on the project site, as well as nearby San Simeon and Van Gordon Creeks and associated riparian vegetation (see Figures 1, 2, and 3). Second, one additional habitat area, a 0.8 acre stand of Monterey Pine located near the center of the project site also qualifies as ESHA. Although planted world-wide, native Monterey pine forest itself only exists on one small island off the coast of Baja Mexico, and in three discrete areas along California's central coast, one of which is in Cambria. The County's LCP designates much of the Monterey pine forest in Cambria as ESHA and also designates it as a Special Resource Area (Terrestrial Habitat), which the LCP affords protections similar to those required for ESHA. Because native Monterey pine forest is exceedingly rare, and because this stand is nearly adjacent to other larger native forest stands in Cambria[5] (and therefore represents an extension/part of the range of this valuable habitat), because it generally provides habitat for rare and endangered plants, and because it provides suitable vegetative cover in areas used by CRLF[6] (also see below), it can therefore be considered ESHA. Moreover, in addition to representing a rare habitat type, Monterey pine forest can support several rare and endemic plant and wildlife species.[7,8] Finally, beyond these ESHA areas, the entire upland area of the project site (i.e., the remainder of the project site) is considered ESHA because it meets all three of the subcategories of the LCP's ESHA definition cited above: 1) the project site includes features and natural resources equivalent to those identified in other areas determined to be ESHA (e.g., Monterey pine forest designated as Special Resource Area (Terrestrial Habitat), as explained above); 2) project-related documents, including the EIR and the CCSD's proposed Adaptive Management Plan identify the site as containing ESHA resources; and 3) the project site is commonly known as habitat for listed, sensitive species. Additional findings, which are focused on the use of the site by the California red-legged frog (CRLF) and the site's physical and biological habitat features that are essential to the CRLF, are detailed below.

---

[4] The County has also designated the entire site as a "Sensitive Resource Area," which is a combining designation under the LCP that identifies areas with special environmental qualities, including ESHA. See Coastal Zone Land Use Ordinance, Section 23 *et seq*.

[5] See https://calscape.org/Pinus-radiata-(Monterey-Pine), California Native Plant Society, accessed January 11, 2019.

[6] See, for example, descriptions of CRLF use of Monterey pine forest areas in Final Initial Study/Mitigated Negative Declaration for Bridge Street Fuel Break Project, Cambria (SCH #2011081093), and in Coastal Commission Findings for Monterey County Major Amendment Number 1-12 for Del Monte Forest Update and Pebble Beach Company Concept Plan, May 9, 2012.

[7] Rare plant species commonly found in Monterey pine forest include: Eastwood's golden fleece *(Eri-cameriafasciculatd),* Monterey manzanita *(Arctostaphylos hookeri),* sandmat manzanita *(A. pumila),* Yadon's rein orchid *(Piperia yadonii),* Hickman's cinquefoil *(Poten-tilla hickmanii),* Hickman's onion *(Allium hickmanii),* Pacific Grove clover *(Trifolium polyodon),* Monterey spine-flower *(Chorizanthe pungens),* and Monterey ceanothus *(Ceanothus rigidus),* Matthews, M. and N. Nedeff, (1995),"California's native Monterey pine forest: can it be saved?", Fremontia, Vol. 23 (1), pgs. 3-6.

[8] Rare wildlife species that occupy Monterey pine forest include: the black legless lizard (*Anniella pulchra nigra*), the coast-horned lizard (*Phrynosoma coronatum frontale*), the Monterey dusky footed woodrat (*Neotoma fuscipes luciana*), the pallid bat (*Antrozous pallidus*), the sharp-shinned hawk (*Accipiter striatus*), the ringtail (*Bassariscus astutus*) and the Monterey ornate shrew (*Sorex ornatus salarius*), Zander Associates, "Biological resources of the Del Monte forest, special status species Del Monte Forest Preservation and Development Plan, prepared for: Pebble Beach Company, July 2001.

Site Occupancy by California Red-Legged Frog

CRLF have been observed on the project site over a number of years. A 1992 survey identified several hundred CRLF in the lower reaches of San Simeon Creek adjacent to the project site.[9] Several more recent on-site observations of CRLF have been recorded in the California Native Diversity Database.[10]

Additionally, in surveys conducted as part of its proposed project development, the CCSD identified CRLF in San Simeon Creek. The first survey, conducted in the fall of 2014, involved a nocturnal mark-recapture approach in San Simeon Creek Lagoon and the lower reaches of San Simeon Creek.[11] This survey yielded an estimate of 54 adult and juvenile frogs across the surveyed area. The second survey, conducted in the spring and fall of 2015, included both daytime and nighttime observational surveys. The area surveyed in 2015 for the presence of CRLF was conducted within San Simeon Creek in areas east and upstream of Van Gordon Bridge, which crosses San Simeon Creek just west and south of the project site. Daytime surveys of the surveyed area were primarily to characterize the site vegetation. During the in-creek surveys, numerous observations of CRLF were recorded on each independent day, including two CRLF tadpoles, one frog observed in the metamorphic stage, 14 as sub-adults,[12] and 12 as adults[13] (though it is unclear whether some of the frogs observed across the surveys represented the same individuals). In both surveys, only the creek's bed and riparian habitat were observed, while Van Gordon Creek and upland areas on the project site were not included. Nonetheless, the project EIR notes that the entire project site, including the upland areas, is located within designated critical habitat for the CRLF and that the site likely provides habitat for other listed or sensitive species.[14]

Although no surveys were conducted on the upland portions of the proposed project site, the presence of CRLF on those parts of the site can be inferred based on knowledge of CRLF feeding requirements and migration behavior and on the characteristics of that habitat. Several studies over the past two decades reveal that all ages of CRLF are reliant on upland habitat for prey, refuge from predation, and as dispersal routes among breeding sites. Using a combination of techniques involving stable isotopic analysis of frog tissues and an examination of the stomach contents from live frogs and museum specimens, one Bay Area study found that from 82% to 99% of the CRLF diet derives from terrestrial prey predominantly found in upland as opposed to aquatic habitat areas.[15] Moreover, the importance of protecting migration routes through upland habitat for CRLF has been demonstrated

[9] See Rathbun et. al, 1993, Status and ecology of sensitive aquatic vertebrates in lower San Simeon and Pico Creeks, San Luis Obispo County, California, Final Report under Cooperative Agreement 14-16-0009-91-1909 between U.S. Fish and Wildlife Service and California Department of Parks and Recreation.

[10] See Appendix A for 1-mile radius and 5-mile radius CNDDB investigation.

[11] Gruber, Jerome D. and Robert C. Gresens, Cambria Community Services District Ground Water Management Plan, November 19, 2015.

[12] Sub-adults refers to an age class of frogs that are post-metamorphic, but not yet capable of reproduction.

[13] Cleveland, Cindy, Final 2015 California Red-legged Frog Field Survey for the Cambria Community Services District Emergency Water Supply Project, Appendix F of the Cambria Sustainable Water Facility Project Adaptive Management Plan, December 10, 2015.

[14] See EIR Section 5.3, Biological Resources.

[15] Bishop, M. R., Drewes, R. C., & Vredenburg, V. T. (2014). Food Web Linkages Demonstrate Importance of Terrestrial Prey for the Threatened California Red-Legged Frog. *Journal of Herpetology, 48*(1), 137-143. doi: 10.1670/12-288.

through studies tracking CRLF movement patterns. Although movement and behavior of CRLF is generally location-specific, biologists' understanding of CRLF migration patterns, once thought to be primarily along riparian corridors where riparian corridors are present, has been revised to include migration overland, often along linear habitually-established corridors.[16]

Observation of CRLF in uplands has likely been underestimated by the behavior of some individuals in the population that exhibit high fidelity to their breeding habitat. These frogs generally remain within 60 meters of their aquatic breeding site year-round, and exhibit long periods of very limited movement. However, another segment of the CRLF population exhibits more extensive dispersal patterns. In one recent study, a set of locally-distributed breeding habitats was found to support both a cohort of non-migrating frogs and a separate cohort of frogs that migrated over distances of up to multiple kilometers. Radio-tracking devices were employed in this study to track CRLF movements. Among this population, one wide-ranging adult frog was observed to travel 2.8 kilometers in a single migration and up to 500 meters in a single night.[17] Sub-adult frogs are deemed more wide-ranging, migrating up to 5 kilometers between metamorphosis and first breeding. As a result of their migratory behavior, sub-adult CRLF are considered instrumental in maintaining the species' metapopulation structure.[18] Misconceptions about and underestimates of upland occupancy and upland migration routes may have also arisen because CRLF migrate at night and seek out cover during the day (*e.g.*, plants, woody debris, rootballs, vertical banks, small recesses, ground squirrel burrows, logs, forest litter, etc.) to avoid predation and prevent desiccation.[19] While survey data were not provided for these upland areas, CRLF presence is easily inferred from the above-cited characteristics.

Breeding Habitat and Migration Routes for CRLF in the Project Vicinity

Considering the proposed project site area, several landscape features provide suitable breeding habitat for CRLF. For example, San Simeon Creek and Lagoon (see Figures 1, 2, and 3) are locations of known occupancy.[20] Breeding likely occurs in the stiller pools of San Simeon Creek, during portions of the year when the sand bar is in place at the lagoon mouth from mid-spring, and stream velocities are relatively low.[21] As a tributary of San Simeon Creek, and as an additional source of suitable habitat, Van Gordon Creek likely also serves as a breeding site and as a migration corridor for some frogs. As discussed above, overland migration routes are also assumed given current knowledge of CRLF foraging and sheltering requirements. CRLF project site occupancy is similarly confirmed by observations of CRLF use of the ECDP-approved on-site evaporation basin as breeding habitat prior to the CCSD fencing it to prevent CRLF from accessing its contaminated waters. Another possible breeding location is apparent just north of the proposed project location. There, a stock pond provides a perennial water source some

[16] Fellers, G. M., & Kleeman, P. M. (2007). California red-legged frog (*Rana draytonii*) movement and habitat use: Implications for conservation. - *41*(- 2), and Tatarian, P. J. (2008). Movement patterns of California red-legged frogs (*Rana draytonii*) in an inland California environment. *Herpetological Conservation and Biology, 3*(2), 155-169.

[17] Bulger, J. B., Scott, N. J., & Seymour, R. B. (2003). Terrestrial activity and conservation of adult California red-legged frogs *Rana aurora draytonii* in coastal forests and grasslands. Biological Conservation, 110(1), 85-95. doi: https://doi.org/10.1016/S0006-3207(02)00179-9.

[18] Bulger, J.B., *et al*; and Tatarian, P.J.

[19] Ford, L.D., P.A. Van Hoorn, D.R. Rao, N.J. Scott, P.C. Trenham, and J.W. Bartolome. 2013. *Managing Rangelands to Benefit California Red-legged Frogs and California Tiger Salamanders.* Livermore, California: Alameda County Resource Conservation District.

[20] *Id.*

[21] Tartarian, Patricia, personal communication, November 11, 2018.

years and an ephemeral source in others (see Figure 3). This stock pond is well within known migration distances for CRLF, and it appears (on Google earth images) to support some of the partial vegetation conditions that frogs require for breeding sites. Although I did not observe the stock pond, which resides on an adjacent private property, during my September site visit, I was able to observe the riparian vegetation along San Simeon and Van Gordon Creeks and confirm their suitability as breeding sites. During the timing of my fall visit, San Simeon Creek still held water. The Van Gordon Creek streambed appeared dry. Upland vegetation provided suitable upland habitat, consisting primarily of dense mixed chaparral and grassland, with agricultural land on surrounding properties. Arroyo willow, *Salix lasiolepsis,* lines San Simeon Creek. It is clear to me that the project site is used by CRLF, requiring its protection for this species.

This conclusion is further supported by the project site's inclusion as CRLF designated critical habitat by the USFWS. Maintenance of the local population of CRLF is a priority of the USFWS and an important element of this species' regional conservation. Since 2010, the project area has been included in the larger SLO-2 Critically Designated Habitat Area,[22] and is part of a larger, locally-healthy population of CRLF. Across much of the SLO-2 area of designated critical habitat are all of the most critical habitat elements necessary for CRLF survival, breeding and dispersal, including vital aquatic and upland habitat resources.[23] The importance of the San Simeon population is further emphasized by its inclusion as a "core area" in the USFWS Recovery Plan for the CRLF.[24] The Recovery Plan notes that "core areas" are identified as the focus for recovery actions and "represent a system of areas that, when protected and managed for California red-legged frogs, will allow for long-term viability of existing populations and reestablishment of populations within historic ranges." It further states that "[c]ore areas will require long-term protection and management so that existing and reestablished populations remain viable." In contrast to more sparsely CRLF-populated locations where such frogs are present, this CRLF metapopulation has the potential to be self-sustaining if individual populations are maintained and important habitat elements are protected. As a species, CRLF are believed to exhibit resilience to extirpation, in part through maintenance of a metapopulation structure, in which the overall regional population is maintained through the dynamics of local extinction and recolonization by neighboring populations of CRLF.[25] However, to be successful, upland habitat must be maintained in addition to aquatic breeding habitat.

Status of other Special Status Species

In addition to CRLF, other special status species have been documented in aquatic habitat directly adjacent to the project site. These species include tidewater goby, south-central steelhead and the western pond turtle. Of these, western pond turtle is most likely to occupy upland habitat on the proposed project site, especially during times of year in which ephemeral streams are dry.[26] Because

[22] The SLO-2 unit extends from Piedras Blancas to Cayucos Creek and includes upper and lower San Simeon Creek, Steiner Creek, upper and lower Santa Rosa Creek, Van Gordon Creek, and Lower Green Valley Creek. SLO-2 also provides connectivity within the Santa Lucia Range, and between this range and the inner Coast Range in San Luis Obispo County.

[23] US Fish and Wildlife Service, March 17, 2010. Endangered and Threatened Wildlife and Plants: Revised Designation of the Critical Habitat for California Red-Legged Frog; Final Rule, Federal Register.

[24] See USFWS, Recovery Plan for the California Red-legged Frog (Rana aurora draytonii), May 28, 2002.

[25] *Id.*

[26] See https://www.biologicaldiversity.org/species/reptiles/western_pond_turtles/index.html.

they are fish, tidewater goby and steelhead pose no risk of occupying the upland areas of the proposed project site. However, activities that occur in the upland environment have the potential to impact water quality in adjacent waterways. If any ESHA-appropriate construction does occur in the upland areas of the site, measures must be instituted to ensure waters of the two creeks remain unaffected and/or their resource values enhanced.

The Entire Project Site and Much of Surrounding area is ESHA

In sum, the entirety of the proposed project site for the long-term water facility meets the definition of ESHA under the LCP. Much of the site is made up of features that are categorically considered ESHA under the LCP definition (i.e., wetlands, creeks, and riparian areas). Roughly an acre includes native Monterey pine forest that is ESHA because of its special qualities noted above and because it is part of the suitable on-site habitat for CRLF forage and dispersal. The entire site is designated critical habitat for the federally threatened California red-legged frog, including the aquatic portions of the site that are ESHA, as well as the remaining portions of the site that are upland to these areas. Because these areas serve as vital foraging, sheltering and dispersal habitat for this threatened species, these upland areas qualify as ESHA for these reasons.

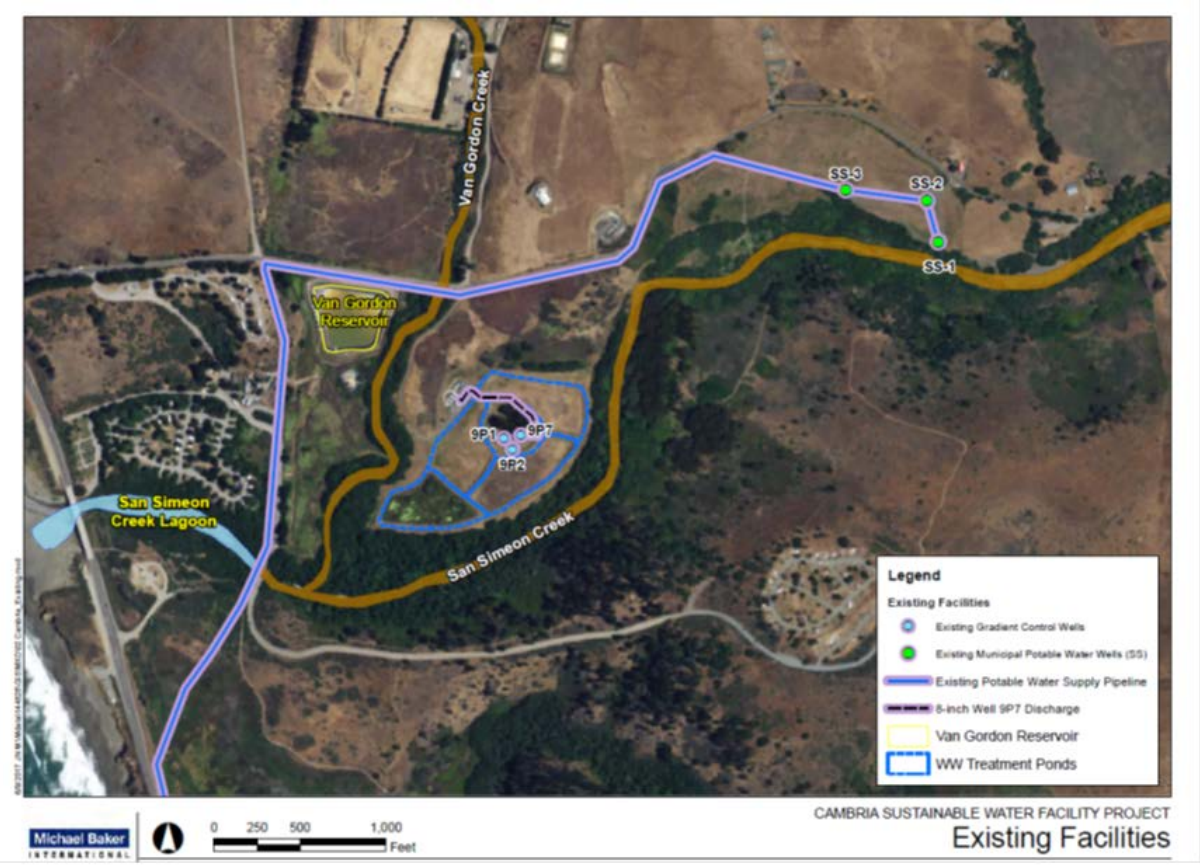
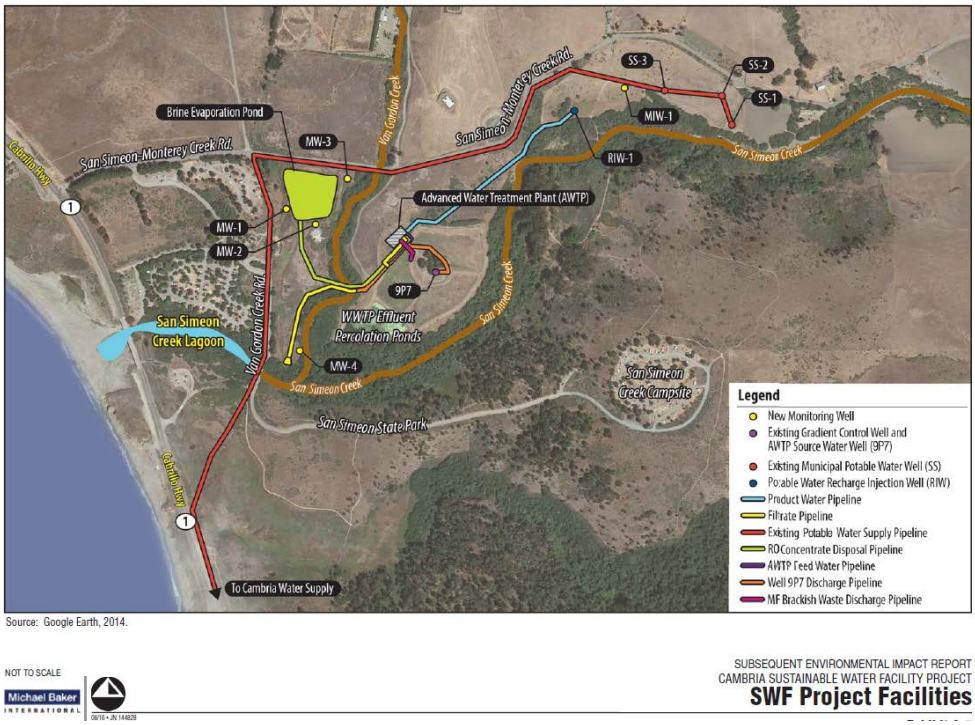


Figure 1: Location of the proposed project site and surrounding area.



Source: Google Earth, 2014.

NOT TO SCALE
Michael Baker INTERNATIONAL

SUBSEQUENT ENVIRONMENTAL IMPACT REPORT
CAMBRIA SUSTAINABLE WATER FACILITY PROJECT
SWF Project Facilities

Figure 2: Location of proposed long-term water supply facility components.

Figure 3: Sites of possible breeding locations and migration routes for CRLF within and adjacent to the project area.

Appendix A:

California Natural Diversity Database for project site, performed by Cindy Cleveland, 1-mile radius (2015)

Scientific_Name	Common_Name	Quad Name	Elm Date	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank	CDFW Status
Danaus plexippus pop. 1	monarch - California overwintering population	Cambria	1991XXXX	None	None	G4T2T3	S2S3		
Monterey Pine Forest	Monterey Pine Forest	Cambria	198511XX	None	None	G1	S1.1		
Eucyclogobius newberryi	tidewater goby	Cambria	1984XXXX	Endangered	None	G3	S3		SSC
Danaus plexippus pop. 1	monarch - California overwintering population	Cambria	201411XX	None	None	G4T2T3	S2S3		
Danaus plexippus pop. 1	monarch - California overwintering population	Cambria	201311XX	None	None	G4T2T3	S2S3		
Eucyclogobius newberryi	tidewater goby	Cambria	20080217	Endangered	None	G3	S3		SSC
Pinus radiata	Monterey pine	Cambria	1994XXXX	None	None	G1	S1	1B.1	
Emys marmorata	western pond turtle	Cambria	1998XXXX	None	None	G3G4	S3		SSC
Oncorhynchus mykiss irideus pop. 9	steelhead - south-central California coast DPS	Cambria	19990626	Threatened	None	G5T2Q	S2		
Castilleja densiflora var. obispoensis	San Luis Obispo owl's-clover	Cambria	19780414	None	None	G5T2	S2	1B.2	
Castilleja densiflora var. obispoensis	San Luis Obispo owl's-clover	Pico Creek	19780519	None	None	G5T2	S2	1B.2	
Myotis yumanensis	Yuma myotis	Cambria	20000509	None	None	G5	S4		
Myotis thysanodes	fringed myotis	Cambria	20000509	None	None	G4	S3		
Malacothamnus palmeri var. involucratus	Carmel Valley bush-mallow	Cambria	19960922	None	None	G3T2Q	S2	1B.2	
Thamnophis hammondii	two-striped gartersnake	Cambria	20080815	None	None	G4	S3S4		SSC
Monolopia gracilens	woodland woollythreads	Cambria	19490514	None	None	G3	S3	1B.2	
Dudleya blochmaniae ssp. blochmaniae	Blochman's dudleya	Cambria	20080401	None	None	G3T2	S2	1B.1	

Castilleja densiflora var. obispoensis	San Luis Obispo owl's-clover	Cambria	20080330	None	None	G5T2	S2	1B.2	
Astragalus pycnostachyus var. pycnostachyus	coastal marsh milk-vetch	Cambria	20030625	None	None	G2T2	S2	1B.2	
Allium hickmanii	Hickman's onion	Pico Creek	20130505	None	None	G2	S2	1B.2	
Rana draytonii	California red-legged frog	Cambria	20150225	Threatened	None	G2G3	S2S3		SSC
Horkelia cuneata var. sericea	Kellogg's horkelia	Cambria	19940508	None	None	G4T1?	S1?	1B.1	

California Natural Diversity Database for project site, performed by Cindy Cleveland, 5-mile radius (2015)

Scientific Name	Common Name	Quad	Elm Date	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank	CDFW Status
Allium hickmanii	Hickman's onion	Pico Creek	20130505	None	None	G2	S2	1B.2	
Allium hickmanii	Hickman's onion	San Simeon	20100414	None	None	G2	S2	1B.2	
Antrozous pallidus	pallid bat	San Simeon	19450624	None	None	G5	S3		SSC
Arctostaphylos cruzensis	Arroyo de la Cruz manzanita	Cambria	19650425	None	None	G1G2	S1S2	1B.2	
Astragalus pycnostachyus var. pycnostachyus	coastal marsh milk-vetch	Cambria	20030625	None	None	G2T2	S2	1B.2	
Baccharis plummerae ssp. glabrata	San Simeon baccharis	Pebblestone Shut-in	19490909	None	None	G3T1	S1	1B.2	
Bombus caliginosus	obscure bumble bee	Cambria	19730617	None	None	G4?	S1S2		
Calochortus obispoensis	San Luis mariposa-lily	Pebblestone Shut-in	19890523	None	None	G2	S2	1B.2	
Calystegia subacaulis ssp. episcopalis	Cambria morning-glory	Cambria	19260428	None	None	G3T2	S2	4.2	
Calystegia subacaulis ssp. episcopalis	Cambria morning-glory	Cambria	20030528	None	None	G3T2	S2	4.2	
Carex obispoensis	San Luis Obispo sedge	Pebblestone Shut-in	20150418	None	None	G3?	S3?	1B.2	
Carex obispoensis	San Luis Obispo sedge	Cambria	19980307	None	None	G3?	S3?	1B.2	
Carex obispoensis	San Luis Obispo sedge	Pebblestone Shut-in	20020607	None	None	G3?	S3?	1B.2	
Castilleja densiflora var. obispoensis	San Luis Obispo owl's-clover	Cambria	19780414	None	None	G5T2	S2	1B.2	
Castilleja densiflora var. obispoensis	San Luis Obispo owl's-clover	Cambria	19780519	None	None	G5T2	S2	1B.2	

Castilleja densiflora var. obispoensis	San Luis Obispo owl's-clover	Pico Creek	19780519	None	None	G5T2	S2	1B.2
Castilleja densiflora var. obispoensis	San Luis Obispo owl's-clover	Cambria	20030612	None	None	G5T2	S2	1B.2
Castilleja densiflora var. obispoensis	San Luis Obispo owl's-clover	San Simeon	20100418	None	None	G5T2	S2	1B.2
Castilleja densiflora var. obispoensis	San Luis Obispo owl's-clover	Cambria	20080330	None	None	G5T2	S2	1B.2
Castilleja densiflora var. obispoensis	San Luis Obispo owl's-clover	Cambria	19980402	None	None	G5T2	S2	1B.2
Castilleja densiflora var. obispoensis	San Luis Obispo owl's-clover	Cambria	19510426	None	None	G5T2	S2	1B.2
Chorizanthe pungens var. pungens	Monterey spineflower	San Simeon	1842XXXX	Threatened	None	G2T2	S2	1B.2
Cirsium fontinale var. obispoense	San Luis Obispo fountain thistle	Pebblestone Shut-in	19930612	Endangered	Endangered	G2T2	S2	1B.2
Cirsium fontinale var. obispoense	San Luis Obispo fountain thistle	Pebblestone Shut-in	199306XX	Endangered	Endangered	G2T2	S2	1B.2
Cirsium occidentale var. compactum	compact cobwebby thistle	San Simeon	198608XX	None	None	G3G4T2	S2	1B.2
Cirsium occidentale var. compactum	compact cobwebby thistle	Pico Creek	20080401	None	None	G3G4T2	S2	1B.2
Cirsium occidentale var. compactum	compact cobwebby thistle	Pico Creek	XXXXXXXX	None	None	G3G4T2	S2	1B.2

Cirsium occidentale var. compactum	compact cobwebby thistle	Cambria	20050305	None	None	G3G4T2	S2	1B.2	
Corynorhinus townsendii	Townsend's big-eared bat	San Simeon	19450624	None	None	G3G4	S2		SSC
Danaus plexippus pop. 1	monarch - California overwintering population	Cambria	1991XXXX	None	None	G4T2T3	S2S3		
Danaus plexippus pop. 1	monarch - California overwintering population	Cambria	19990112	None	None	G4T2T3	S2S3		
Danaus plexippus pop. 1	monarch - California overwintering population	Cambria	19901113	None	None	G4T2T3	S2S3		
Danaus plexippus pop. 1	monarch - California overwintering population	Cambria	19920209	None	None	G4T2T3	S2S3		
Danaus plexippus pop. 1	monarch - California overwintering population	Cambria	201411XX	None	None	G4T2T3	S2S3		
Danaus plexippus pop. 1	monarch - California overwintering population	Cambria	201311XX	None	None	G4T2T3	S2S3		
Danaus plexippus pop. 1	monarch - California overwintering population	Cambria	20151230	None	None	G4T2T3	S2S3		
Delphinium parryi ssp. blochmaniae	dune larkspur	Pico Creek	19240331	None	None	G4T2	S2	1B.2	
Delphinium parryi ssp. eastwoodiae	Eastwood's larkspur	Cambria	19590429	None	None	G4T2	S2	1B.2	

Dudleya blochmaniae ssp. blochmaniae	Blochman's dudleya	Cambria	20080401	None	None	G3T2	S2	1B.1	
Dudleya blochmaniae ssp. blochmaniae	Blochman's dudleya	San Simeon	20120610	None	None	G3T2	S2	1B.1	
Emys marmorata	western pond turtle	San Simeon	19880506	None	None	G3G4	S3		SSC
Emys marmorata	western pond turtle	San Simeon	20070612	None	None	G3G4	S3		SSC
Emys marmorata	western pond turtle	Pebblestone Shut-in	19880615	None	None	G3G4	S3		SSC
Emys marmorata	western pond turtle	Cambria	1998XXXX	None	None	G3G4	S3		SSC
Emys marmorata	western pond turtle	Pico Creek	XXXXXXXX	None	None	G3G4	S3		SSC
Emys marmorata	western pond turtle	Cambria	2000XXXX	None	None	G3G4	S3		SSC
Emys marmorata	western pond turtle	Cambria	1996XXXX	None	None	G3G4	S3		SSC
Emys marmorata	western pond turtle	Cambria	20031013	None	None	G3G4	S3		SSC
Emys marmorata	western pond turtle	Pebblestone Shut-in	19880614	None	None	G3G4	S3		SSC
Emys marmorata	western pond turtle	Cambria	19880628	None	None	G3G4	S3		SSC
Emys marmorata	western pond turtle	Pico Creek	1997XXXX	None	None	G3G4	S3		SSC
Emys marmorata	western pond turtle	San Simeon	19880806	None	None	G3G4	S3		SSC
Emys marmorata	western pond turtle	Cambria	20020601	None	None	G3G4	S3		SSC
Eryngium aristulatum var. hooveri	Hoover's button-celery	Cambria	187606XX	None	None	G5T1	S1	1B.1	
Eucyclogobius newberryi	tidewater goby	Cambria	1984XXXX	Endangered	None	G3	S3		SSC
Eucyclogobius newberryi	tidewater goby	Cambria	20080217	Endangered	None	G3	S3		SSC
Eucyclogobius newberryi	tidewater goby	Cambria	20080217	Endangered	None	G3	S3		SSC

Eucyclogobius newberryi	tidewater goby	San Simeon	20080217	Endangered	None	G3	S3		SSC
Eucyclogobius newberryi	tidewater goby	San Simeon	20080217	Endangered	None	G3	S3		SSC
Eucyclogobius newberryi	tidewater goby	San Simeon	20080217	Endangered	None	G3	S3		SSC
Eucyclogobius newberryi	tidewater goby	Pico Creek	20080217	Endangered	None	G3	S3		SSC
Galium californicum ssp. luciense	Cone Peak bedstraw	Cambria	19400421	None	None	G5T3	S3	1B.3	
Galium hardhamiae	Hardham's bedstraw	Pebblestone Shut-in	19690528	None	None	G3	S3	1B.3	
Horkelia cuneata var. puberula	mesa horkelia	Cambria	19590521	None	None	G4T1	S1	1B.1	
Horkelia cuneata var. sericea	Kellogg's horkelia	Cambria	19580213	None	None	G4T1?	S1?	1B.1	
Horkelia cuneata var. sericea	Kellogg's horkelia	Cambria	19940508	None	None	G4T1?	S1?	1B.1	
Lasthenia californica ssp. macrantha	perennial goldfields	Cambria	19570517	None	None	G3T2	S2	1B.2	
Malacothamnus palmeri var. involucratus	Carmel Valley bush-mallow	Cambria	19960922	None	None	G3T2Q	S2	1B.2	
Malacothamnus palmeri var. palmeri	Santa Lucia bush-mallow	Cambria	19550614	None	None	G3T2Q	S2	1B.2	
Malacothamnus palmeri var. palmeri	Santa Lucia bush-mallow	Pico Creek	20000121	None	None	G3T2Q	S2	1B.2	
Malacothamnus palmeri var. palmeri	Santa Lucia bush-mallow	Cambria	19311123	None	None	G3T2Q	S2	1B.2	
Monardella sinuata ssp. sinuata	southern curly-leaved monardella	San Simeon	XXXXXXXX	None	None	G3T2	S2	1B.2	
Monolopia gracilens	woodland woollythreads	Cambria	19490514	None	None	G3	S3	1B.2	

Monolopia gracilens	woodland woollythreads	Cambria	19400420	None	None	G3	S3	1B.2	
Monterey Pine Forest	Monterey Pine Forest	San Simeon	19820129	None	None	G1	S1.1		
Monterey Pine Forest	Monterey Pine Forest	Cambria	198511XX	None	None	G1	S1.1		
Monterey Pine Forest	Monterey Pine Forest	Cambria	198511XX	None	None	G1	S1.1		
Myotis thysanodes	fringed myotis	Cambria	20000509	None	None	G4	S3		
Myotis yumanensis	Yuma myotis	Cambria	20000509	None	None	G5	S4		
Oncorhynchus mykiss irideus pop. 9	steelhead - south-central California coast DPS	San Simeon	199205XX	Threatened	None	G5T2Q	S2		
Oncorhynchus mykiss irideus pop. 9	steelhead - south-central California coast DPS	San Simeon	199205XX	Threatened	None	G5T2Q	S2		
Oncorhynchus mykiss irideus pop. 9	steelhead - south-central California coast DPS	Cambria	19990626	Threatened	None	G5T2Q	S2		
Oncorhynchus mykiss irideus pop. 9	steelhead - south-central California coast DPS	Cambria	20031019	Threatened	None	G5T2Q	S2		
Pinus radiata	Monterey pine	Cambria	1994XXXX	None	None	G1	S1	1B.1	
Pinus radiata	Monterey pine	San Simeon	1994XXXX	None	None	G1	S1	1B.1	
Rana boylii	foothill yellow-legged frog	San Simeon	19990406	None	Candidate Threatened	G3	S3		SSC
Rana boylii	foothill yellow-legged frog	Cambria	19480903	None	Candidate Threatened	G3	S3		SSC
Rana draytonii	California red-legged frog	Pico Creek	20010515	Threatened	None	G2G3	S2S3		SSC
Rana draytonii	California red-legged	Cambria	19991019	Threatened	None	G2G3	S2S3		SSC

	frog								
Rana draytonii	California red-legged frog	Cambria	20050918	Threatened	None	G2G3	S2S3		SSC
Rana draytonii	California red-legged frog	Cambria	20050616	Threatened	None	G2G3	S2S3		SSC
Rana draytonii	California red-legged frog	San Simeon	20080320	Threatened	None	G2G3	S2S3		SSC
Rana draytonii	California red-legged frog	Pico Creek	20070501	Threatened	None	G2G3	S2S3		SSC
Rana draytonii	California red-legged frog	Cambria	20080815	Threatened	None	G2G3	S2S3		SSC
Rana draytonii	California red-legged frog	Cambria	19991109	Threatened	None	G2G3	S2S3		SSC
Rana draytonii	California red-legged frog	Cambria	20061016	Threatened	None	G2G3	S2S3		SSC
Rana draytonii	California red-legged frog	Cambria	20150225	Threatened	None	G2G3	S2S3		SSC
Senecio aphanactis	chaparral ragwort	Cambria	19580322	None	None	G3	S2	2B.2	
Streptanthus albidus ssp. peramoenus	most beautiful jewelflower	Cambria	19290505	None	None	G2T2	S2	1B.2	
Thamnophis hammondii	two-striped gartersnake	Pico Creek	19860812	None	None	G4	S3S4		SSC
Thamnophis hammondii	two-striped gartersnake	San Simeon	19760702	None	None	G4	S3S4		SSC
Thamnophis hammondii	two-striped gartersnake	Cambria	20080815	None	None	G4	S3S4		SSC