12.3 COMMENTS AND RESPONSES

In compliance with CEQA Guidelines §15132, this section includes the comments and recommendations received on the DSEIR (see Section 12.2, *Lists of Public Agencies, and Persons and Organizations Commenting on the DSEIR*), along with the Cambria Community Services District's (CCSD) responses to significant environmental points raised by those comments.

This section is organized in two parts: 1) Public Agencies (PA); and 2) Persons and Organizations (PO), Public Comment Session (PC), and Board Meeting Comments (BMC). Each individual comment letter listed in FSEIR Section 12.2, *Lists of Public Agencies, and Persons and Organizations Commenting on the DSEIR*, is reproduced on the following pages. Each letter and the individual comments in each letter have been consecutively numbered for ease of reference. Following each comment letter, a response is provided for each comment raising substantive environmental issues. The responses are numbered and correlated to the bracketed and identified portions of each comment letter. A "PA," "PO," "PC," or "BMC" prefix is included with each comment number to differentiate the numbered responses.

Responses may include text changes, in order to clarify or correct information in the DSEIR, as requested by the Lead Agency or due to environmental points raised in the comments. A response to a comment requiring revisions to the DSEIR presents the relevant DSEIR text in a box, with new text indicated by underlining and deleted text indicated by ~~strike through~~, as shown in the following example.

~~Deleted DSEIR text~~ Added DSEIR text

The DSEIR text revisions are also compiled and presented in FSEIR Section 12.4, *Errata to the Draft Subsequent EIR*.

12.3.1 PUBLIC AGENCY COMMENTS AND RESPONSES

Following are all of the public agency comments on the DSEIR, along with the CCSD's responses to significant environmental points raised by those comments.

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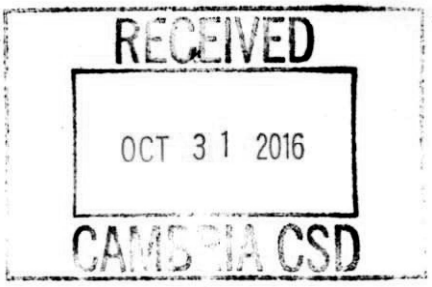
STATE OF CALIFORNIA
GOVERNOR'S OFFICE *of* PLANNING AND RESEARCH
STATE CLEARINGHOUSE AND PLANNING UNIT

EDMUND G. BROWN JR.
GOVERNOR

KEN ALEX
DIRECTOR

October 27, 2016



Robert C. Gresens
Cambria Community Services District
1316 Tamson Drive, Suite 201
Cambria, CA 93428

Subject: Cambria Substainable Water Facility Project
SCH#: 2014061073

Dear Robert C. Gresens:

The State Clearinghouse submitted the above named Supplemental EIR to selected state agencies for review. On the enclosed Document Details Report please note that the Clearinghouse has listed the state agencies that reviewed your document. The review period closed on October 26, 2016, and the comments from the responding agency (ies) is (are) enclosed. If this comment package is not in order, please notify the State Clearinghouse immediately. Please refer to the project's ten-digit State Clearinghouse number in future correspondence so that we may respond promptly.

Please note that Section 21104(c) of the California Public Resources Code states that:

> "A responsible or other public agency shall only make substantive comments regarding those activities involved in a project which are within an area of expertise of the agency or which are required to be carried out or approved by the agency. Those comments shall be supported by specific documentation."

1-1

These comments are forwarded for use in preparing your final environmental document. Should you need more information or clarification of the enclosed comments, we recommend that you contact the commenting agency directly.

This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act. Please contact the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process.

Sincerely,

Scott Morgan
Director, State Clearinghouse

Enclosures
cc: Resources Agency

Document Details Report
State Clearinghouse Data Base

SCH# 2014061073
Project Title Cambria Substainable Water Facility Project
Lead Agency Cambria Community Services District

Type SIR Supplemental EIR

Description Notes: Extended Per Lead

The project, which was substantially completed in November 2014 and is currently operational, considers the construction and continued operation of the sustainable water project. CCSD's Board of Directors approved proceeding with the project, which the Board determined was statutorily exempt from CEQA under the emergency exemption provisions of CEQA, on Jan 30, 2014. The County of San Luis Obispo issued an emergency coastal development permit to CCSD on May 15, 2014, permitting CCSD to proceed with the construction and operation of the project. Construction began on May 20, 2014. One of the conditions of the ECDP was that CCSD apply for a regular coastal development permit for the emergency project.

Lead Agency Contact

Name Robert C. Gresens
Agency Cambria Community Services District
Phone (805) 927-6223 **Fax**
email
Address 1316 Tamson Drive, Suite 201
City Cambria **State** CA **Zip** 93428

Project Location

County San Luis Obispo
City Cambria
Region
Lat / Long 35° 35' 58.73" N / 121° 7' 26" W
Cross Streets San Simeon Monterey Creek Road and Van Gordon Creek Road
Parcel No. 013-051-024 and 013-051-008
Township 27S **Range** 8E **Section** 9 **Base** SBB&M

Proximity to:

Highways SR-1
Airports Rancho San Simeon
Railways
Waterways Pacific Ocean
Schools
Land Use Various

Project Issues Aesthetic/Visual; Air Quality; Archaeologic-Historic; Biological Resources; Coastal Zone; Drainage/Absorption; Flood Plain/Flooding; Noise; Public Services; Soil Erosion/Compaction/Grading; Vegetation; Water Quality; Wetland/Riparian; Water Supply; Wildlife; Growth Inducing; Landuse; Cumulative Effects

---

Reviewing Agencies Resources Agency; California Coastal Commission; Department of Fish and Wildlife, Region 4; Department of Parks and Recreation; Department of Water Resources; Office of Emergency Services, California; California Highway Patrol; Caltrans, District 5; State Water Resources Control Board, Division of Drinking Water, District 6; State Water Resources Control Board, Division of Water Rights; Regional Water Quality Control Board, Region 3; Native American Heritage Commission; Other - Public Comments; Other Agency(ies)

Date Received 08/31/2016 **Start of Review** 08/31/2016 **End of Review** 10/26/2016

Note: Blanks in data fields result from insufficient information provided by lead agency.

RESPONSE TO COMMENT LETTER NO. PA-1

Scott Morgan, Director, State Clearinghouse
State of California Governor's Office of Planning and Research, State Clearinghouse and Planning Unit
October 27, 2016

PA 1-1 This letter acknowledges that the State Clearinghouse submitted the DSEIR to selected State agencies for review and that the comment period for the DSEIR concluded on June 19, 2015. This letter also acknowledges that the lead agency (CCSD) complied with the public review requirements for the Draft SEIR pursuant to CEQA. As such, the commenter does not provide specifics regarding information presented in the DSEIR, and no further response is necessary.

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Bob Gresens

From: Bob Gresens
Sent: Thursday, October 06, 2016 5:30 PM
To: 'Luster, Tom@Coastal'
Cc: Jerry Gruber
Subject: RE: Quick question/request re: EIR?
Attachments: 2014 07 31 CDM Geotech Report to support Title 27 evap pond.pdf

Hello Tom,

Thank you for your time and efforts in reviewing our draft EIR. Per your original request below, please see the attached report, which was referenced in Section 8.3.

Bob

Robert C. Gresens, P.E.
District Engineer
Cambria Community Services District
(US Postal address:) P.O. Box 65
(shipping/Federal Express only:) 1316 Tamsen Street, Suite 201
Cambria, CA 93428

Office: 805-927-6119
Mobile: 805-909-2210
Fax: 805-927-5584

2-1

From: Luster, Tom@Coastal [mailto:Tom.Luster@coastal.ca.gov]
Sent: Wednesday, October 05, 2016 3:03 PM
To: Bob Gresens
Subject: RE: Quick question/request re: EIR?

Hi Bob,

Yes, it's in Section 8.3 – Geology and Soils.

Thanks again,

Tom L.

From: Bob Gresens [mailto:bgresens@cambriacsd.org]
Sent: Wednesday, October 05, 2016 2:30 PM
To: Luster, Tom@Coastal
Subject: RE: Quick question/request re: EIR?

Hello Tom,

We are checking into your question. To facilitate our response efforts, do you recall which page or section of the SEIR you were on when you came across this reference?

Thank you.

Bob

Robert C. Gresens, P.E.
District Engineer
Cambria Community Services District
(US Postal address:) P.O. Box 65
(shipping/Federal Express only:) 1316 Tamsen Street, Suite 201
Cambria, CA 93428

Office: 805-927-6119
Mobile: 805-909-2210
Fax: 805-927-5584

From: Luster, Tom@Coastal [mailto:Tom.Luster@coastal.ca.gov]
Sent: Wednesday, October 05, 2016 10:42 AM
To: Bob Gresens
Subject: Quick question/request re: EIR?

2-1

Hi Bob,

I'm reviewing your EIR and can't find a copy of the Geotechnical Evaluation referenced in the report (i.e., *Cambria Emergency Water Supply Project Geotechnical Evaluation* from CDM Smith, July 31, 2014). Could you please send me a copy, or a link to the document?

Thanks very much,

Tom L.

Tom Luster
California Coastal Commission
45 Fremont Street #2000
San Francisco, CA 94105
415-904-5248

http://www.coastal.ca.gov/

Memorandum

To: *Cambria Community Services District*

From: *CDM Smith Inc.*

Prepared by: *Jeff Woon, P.E., G.E., Osman Pekin, Ph.D., P.E., G.E*
Reviewed by: *Ben Swann, R.G., C.HG.*
Approved by: *Sava Nedic, P.E, PMP, BCEE*

Date: *July 31, 2014*

Subject: *Cambria Emergency Water Supply Project Geotechnical Evaluation*

1.0 Executive Summary

This document is intended to provide the applicant's responses to Title 27 requirements related to geology, seismicity, and geotechnical concerns. An overview of the findings corresponding to the relevant Title 27 Sections is provided below. Additional details are provided in the remainder of this memorandum and its attachments.

Geology [21750 (f); 20250 (b)]:

- The regional geology map is provided in Figure 1 and the site geology map is provided in Figure 2. The pond site and its vicinity consist of alluvial material. There are no complex geologic features such as bedrock units, faults fractures, folds or other such features.
- The materials in question at the pond consist of berm fill derived from native materials and alluvium. Information on the characteristics of site soils and the engineering properties of the materials based on laboratory tests are provided in this Memorandum and its Attachments.
- The pond bottom and side slopes shall be lined with geomembrane.
- A geotechnical investigation consisting of two borings were performed in the vicinity of the pond site and the result of the investigation is presented in this Memorandum and its attachments.
- The embankment for the existing berm consists of compacted berm fill placed during the original construction. The existing slopes are relatively flat with inclination generally on the order of 3 horizontal to 1 vertical (H:V) to 4:1 with height of about 9 feet. Relevant cross sections are illustrated Figure 3. Based on the limited height and relatively flat slope inclination across the entire pond, analysis was performed at locations that represents the most critical and conservative scenario with the steepest slope inclination.

- The required slope stability analyses have been performed under the supervision of a registered civil engineer. The stability analyses were performed using the computer program SLOPE/W. The analyses were performed for circular slope failures based on the Spencer's method utilizing peak soil strengths. The engineering properties of the berm fill and the underlying alluvium were reviewed. Selection of the shear strength was based on correlation with similar soil types. Analysis findings indicate that the seismic slope stability factor of safety is in excess of the minimum required value of 1.5. Results and additional details are presented in Section 5 and Appendix C of this Memorandum.

Seismic Design [21750 (f); 20250 (b); 20370]:

- Site seismicity was reviewed and historical earthquake within 62 miles of the site was identified using the computer program, EQSEARCH. A listing of the historical earthquakes is presented. An earthquake along the San Simeon Fault Zone occurred on December 22, 2003 (San Simeon Earthquake), which was centered approximately ten miles north of Cambria and about seven miles northeast of San Simeon. According to the Program Environmental Impact Report for the Cambria Community Services District Water Master Plan (2008), the 6.5 magnitude earthquake resulted in two fatalities, injuries to 47 people, and damage to approximately 290 homes and 190 commercial structures in San Luis Obispo and Santa Barbara Counties.
- There are three Holocene active faults in San Luis Obispo County that are zoned under the State of California Alquist-Priolo Earthquake Fault Zone: the San Simeon–Hosgri Fault, the San Andreas, and the Los Osos Fault. Other faults that have the potential to affect the evaporation pond site and the Cambria area include the Cambria Fault, Oceanic Fault and the Nacimiento Fault.
- The closest active fault to the pond site is the San-Simeon-Hosgri Fault Zone which consists of two fault zones: the San Simeon Fault Zone and the Hosgri Fault Zone. These zones extend for approximately 108 miles along the coast, west and offshore of the pond. The faults in this zone have a characteristic return interval of 646 years, and are believed to have a potential for seismic events of a Maximum Credible Earthquake (MCE) magnitude as high as 7.3. The on-shore portion of the San Simeon Fault extends north from San Simeon Point and is approximately four miles northwest of the evaporation pond. Hosgri Fault is offshore and approximately two miles west of the pond site.
- The peak ground acceleration for a site rock condition was estimated using the ground motion prediction equation based on the attenuation relationships from the NGA West2 models. A shear wave velocity (Vs) of 560 m/s was used to simulate the site condition for soft rock. A peak ground acceleration of 0.52g was estimated for MCE.

- Given the relative flat slope inclination and the low berm height, a pseudo-static analysis was performed for the seismic slope stability. The results indicate factor of safety greater than 1.5 under seismic loading. A detailed dynamic analysis was not performed.
- A listing of the historical earthquakes in the site vicinity is provided in Section 5.2 of this Memorandum.
- There are no known Holocene faults within 200 feet of the pond. Additional details related to known faults in the area are covered in this Memorandum.
- There are no significant risks associated with tidal waves due to the elevation of the site. Additional discussion and information on seismic hazards is provided in this Memorandum.
- This is a proposed Class II Unit and as such, the maximum credible earthquake (MCE) has been used in the design. Containment shall be within an existing earth detention pond which will be modified by lining of the bottom and the side slopes. The depth of brine water is shallow and the earth embankment heights and slope inclinations have ample safety factor when analyzed for MCE.

2.0 Project Overview

The site of the evaporation pond is located to the southeast of the intersection of San Simeon Monterey Creek Road and Van Gordon Creek Road, and west of Van Gordon Creek near the coastal plain.

The RO brine from the AWTP will be conveyed to the existing Van Gordon Pond. The existing evaporation pond was built in the 1980s and has earthen berms (fill) all around. The existing berm has heights approximately 8 to 9 feet with relatively flat slope inclination of about 3:1 to 4:1. The bottom elevations of the pond vary from 38 to 39 feet and top of berm elevations are generally between 45 to 47 feet (Based on the National Geodetic Vertical Datum 29, (NGVD 29)).

Necessary cut and fill will be performed to achieve the required gradients prior to the installation with a new liner. The existing spillway along the southern berm will be demolished and filled to match the existing berm height. Prior to the installation of the liner, the bottom of the reservoir and the side slopes shall be proof-rolled to provide a competent subgrade for support of the liner. The liner shall be anchored to the top of the berm.

3.0 Geology

3.1 Regional Setting

The project site is situated in the Coast Ranges Physiographic Province of central California. The Coast Ranges Province is about 400 miles long, 50 miles wide, and is located between the Pacific Ocean and the Great Valley. The Coast Ranges Province consists of north-northwest-trending sedimentary, volcanic, and igneous rocks extending from the Transverse Ranges to the south, into

northern California. Rocks of the Coast Ranges Province are predominately Jurassic and Cretaceous-age; however, pre-Jurassic, along with Paleocene-age to Recent rocks are present. North-northwest-trending faulting and folding are characteristic of the Coast Ranges Province.

The Franciscan Formation underlies younger sediments within the project area and is generally exposed in the slopes surrounding San Simeon and Van Gordon Creeks. The Franciscan Formation consists of volcanic, metavolcanic, sedimentary and igneous rocks. The Franciscan Formation generally forms moderately to steeply inclined slopes in the project area. The Franciscan Formation will not be encountered in the area of the pond, however, it exists in the surrounding areas or at greater depths.

In general, the alluvium in the project area is probably of Holocene age. The older alluvium is probably Holocene- to Pleistocene-age and overlies the uplifted wave-cut platform bordering the coastline. According to Hall (1990), the wave-cut platform in this area is about 60,000 to 80,000 years old. The Franciscan Formation is of Cretaceous- to Jurassic-age (Hall, 1974).

The regional geology map is shown in Figure 1, Regional Geology Map.

3.2 Local Setting

Cambria and San Luis Obispo County are located within the Southern Coast Ranges Physiographic Province of California. The province is characterized by several subparallel structural blocks bounded by a number of on- and off-shore faults.

Much of the coastal plain is characterized as a wave-cut platform on which Quaternary-age marine terrace deposits overly older bedrock. Streams in the region are typically bordered by steep to moderately steep terrain with the bottom of the stream valleys containing Quaternary-to Recent-age alluvial deposits which overlie the bedrock. Bedrock underlying the area is mapped generally as the Franciscan Formation, located at depths deeper than most borings encountered in our investigation. In the vicinity of the pond site, alluvial deposits consisting of predominantly silty and clayey soils are mapped (Hall, 1974) and encountered.

The site geology is shown in Figure 2, Site Geology Map. A typical geologic cross section of the berm and the pond is shown in Figure 3, Typical Geologic Cross-Section.

4.0 Subsurface Explorations

4.1 Borings and Subsurface Conditions

The geotechnical field exploration consisted of drilling six (6) borings with a truck mounted hollow stem auger rig. The boring locations are shown on Figure 1. Two of the borings were drilled at the existing Van Gordon Creek Reservoir (B-4, B-5), which are of relevance to this submittal. Other boring logs and test results from them are also included for information.

The existing berm fill at the evaporation pond consisted of predominantly loose clayey sand and firm sandy silt/clay classifying as SC, ML and CL to the pond bottom. Below the pond, the subsurface is underlain by alluvial deposits consisting of predominantly soft to firm sandy and silty clay (CL) with layers of clayey sand (SC), loose silty sand and sand with silt (SM, SP-SM). The clayey soils are moderately plastic and exhibited LL ranging between 30 and 43, and PI between 14 and 26. The dry densities of the samples tested within the pond area ranged between 93 and 106 pcf.

Logs of the subsurface conditions as encountered in the borings are presented on the boring logs in Appendix A.

4.2 Laboratory Testing

Pertinent index properties and geotechnical characteristics to aid in soil classification were done on samples recovered from the borings. Tests included moisture content and dry density, grain size distribution, percent finer than the No. 200 sieve, Atterberg limits, consolidation characteristics, permeability, optimum moisture and maximum dry density relationship, and corrosivity. Laboratory test results are provided in Appendix B.

4.3 Groundwater

Groundwater was encountered in the two borings at the pond area (B-4 and B-5) during drilling at depths ranging between 20 to 28 feet bgs. It should be noted that water levels measured in the explorations should not necessarily be considered to represent stabilized groundwater levels. In addition, groundwater levels are expected to fluctuate with season, temperature, climate, construction in the area, and other factors. Given the drought being experienced in the Central Coast, actual conditions during construction or during a normal year may be different and higher from those observed at the time of the explorations.

4.4 Infiltration Testing

Infiltration tests using a double ring infiltrometer test apparatus as shown in the photos in Appendix B were performed within the bottom of the Van Gordon Reservoir. Infiltration test B-5-1 is located approximately 26 feet south and 5 feet east of boring B-5. Test B-5-2 is located about 53 feet east and 12 feet north of the riser well pipe near the center. Plots of the elapsed time versus water level data obtained from two different field tests are presented in Appendix B. Test results indicated infiltration rates ranging from 3 inches/hr to greater than 1 ft/hr on surface materials of mixed gradations, under unsaturated conditions. It is noted that infiltration test and data is not relevant because the entire pond bottom and side slopes will be lined.

5.0 Seismic Hazard Evaluation

5.1 Faulting and Seismicity

Like most areas in San Luis Obispo County and California, the site of the evaporation pond is situated within a seismically active region. However, the site is not located within a currently designated

State of California Alquist Priolo Earthquake Fault Zone for the Cambria Quadrangle published by the State of California. There is no known Holocene fault within 200 feet of the site.

There are numerous faults in the region that can be characterized as active, potentially active, conditionally active or inactive based on the recency of movement. A Regional fault map is shown in Figure 4, Regional Fault Map.

An active fault is defined as a fault that has an historic seismic record of rupture or displacement during the Holocene (11,000 years or younger). There are three Holocene active faults in San Luis Obispo County that are zoned under the State of California Alquist-Priolo Earthquake Fault Zone: the San Simeon–Hosgri Fault, the San Andreas, and the Los Osos Fault. Other faults that have the potential to affect the evaporation pond site and the Cambria area include the Cambria Fault, Oceanic Fault and the Nacimiento Fault. These faults are shown on the Fault Map, and a brief description of each of fault is presented below:

San Simeo–Hosgri Fault and San Simeon Fault Zone - The closest active fault to the pond site is the San-Simeon-Hosgri Fault Zone which consists of two fault zones: the San Simeon Fault Zone and the Hosgri Fault Zone. These zones extend for approximately 108 miles along the coast, west and offshore of the pond. The faults in this zone have a characteristic return interval of 646 years, and are believed to have a potential for seismic events of a Maximum Credible Earthquake (MCE) magnitude as high as 7.3. The on-shore portion of the San Simeon Fault extends north from San Simeon Point and is approximately 4 miles northwest of the evaporation pond. Hosgri Fault is offshore and approximately 2 miles west of the pond site.

San Andreas Fault - While not directly located in the Cambria community and the North Coast area, the San Andreas Fault is a major fault in California and is within the impact range of the Cambria area. This fault is more than 40 miles east of the site, and is considered to be the most likely source of a future major earthquake in California, with potential seismic events of magnitude as high as 8.5. A substantial seismic event along this fault could pose major risk for the entire North Coast area.

Los Osos Fault – The Los Osos fault zone has been mapped generally in an east-west orientation, along the northern flank of the Irish Hills. The western end of the onshore fault zone is located near the community of Los Osos, and the eastern end is located near U.S. Highway 101. To the east of U.S. Highway 101, the fault may continue along the northeast flank of the Irish Hills as the Edna fault zone. Los Osos fault has the potential to generate an earthquake with a magnitude of 6.8.

Cambria Fault – Cambria Fault is currently considered as a potentially active fault trending northwestly through the urbanized community and terminating in Cambria. Cambria Fault is not mapped as part of the State Earthquake Fault Zone. If active, the fault could pose a risk for Cambria area with a potential magnitude 6.25 seismic event.

Oceanic Fault – The West Huasna/Oceanic Fault Zone trends north-northwest for approximately 63 miles. The Oceanic Fault section of this zone trends northwest near San Luis Obispo to San Simeon

Acres, and passes approximately five miles northeast of Cambria. This fault is considered to be potentially active and represents a moderate fault rupture hazard to the Cambria area.

Nacimiento Fault – Trending northwest to southeast, the Nacimiento Fault is located east of the project and the North Coast area, in the Santa Lucia Range. There is debate whether this is an active or inactive fault and is not currently mapped as part of the Alquist-Priolo Earthquake Fault zone.

5.2 Historical Seismicity

The project is located in a seismically active region. The region has been subjected to a number of moderate to large earthquakes during historic times. Most of those earthquakes have occurred along regional faults located outside of the general project region. For instance, the project area has been subjected to strong ground motion from the 1857, 1906, 1934, and 1966 earthquakes along the San Andreas fault. In addition, the following earthquakes resulted in strong ground motion in the project region: 1902 and 1915 earthquakes believed to have occurred on the Orcutt Frontal fault system; the 1927 Santa Barbara earthquake, located on an unspecified offshore fault source; the 1952 Tehachapi-Arvin earthquake, which occurred along the White Wolf fault; and the 1961 Hollister earthquake, believed to have occurred on the Calaveras fault system.

The project region also has been subjected to historical earthquakes that have occurred on local faults. According to Asquith (1975), the November 21, 1952 M6.0 Byron earthquake occurred on either the Nacimiento or San Simeon fault systems. In addition, an unnamed M4.3 earthquake has been recorded at about the project site and numerous other M4.0 to M4.5 earthquakes have been recorded between the site and San Simeon Bay (Asquith, 1975). Those M4.0 to M4.5 earthquakes have occurred along unspecified fault sources.

Based on historical records in San Luis Obispo County, significant earthquake shaking along the San Andreas Fault and moderate seismic activities in a broad area along sections of Hosgri, San Simeon, Los Osos, Nacimiento, and possibly the West Huasna/Oceanic fault zones have been recorded.

An earthquake along the San Simeon Fault Zone occurred on December 22, 2003 (San Simeon Earthquake), which was centered approximately ten miles north of Cambria and about seven miles northeast of San Simeon. According to the Program Environmental Impact Report for the Cambria Community Services District Water Master Plan (2008), the 6.5 magnitude earthquake resulted in two fatalities, injuries to 47 people, and damage to approximately 290 homes and 190 commercial structures in San Luis Obispo and Santa Barbara Counties. Other significant earthquakes affecting the North Coast area during the last century have generally been centered outside of the County.

A listing of the historical seismicity with magnitude greater than 5.0 on the Ritcher Scale within a 100 km (62 mile) radius of the site from 1900 to 1999 were obtained using EQSEARCH, a computer program for estimating the peak ground acceleration at the site from historical earthquakes. The date of the seismic event, location of the epicenter (latitude/longitude), earthquake magnitude, estimated ground acceleration, distance to the pond site are presented in Table 1.

Table 1 Selected Historical Earthquake with Mw > 5.0 within 100 km (62 miles) from site from 1900 to 1999

Date	Latitude	Longitude	Magnitude (Mw)	Peak Acceleration (g)	Approx. Distance to Site (Miles)
11/22/1952	35.7300	121.2000	6.00	0.14	10.1
9/17/1991	35.8280	121.3230	5.1	0.054	19.5
8/29/1983	35.8400	121.3300	5.2	0.055	20.4
2/26/1932	36.0000	121.0000	5.0	0.038	28.5
11/2/1955	36.0000	120.9200	5.2	0.041	29.9
12/7/1906	35.3000	120.7000	5.9	0.057	31.4
12/1/1916	35.1700	120.7500	5.7	0.046	36.2
6/29/1966	35.9500	120.5300	5.0	0.029	41.0
6/28/1966	35.9500	120.5000	5.5	0.037	42.4
7/10/1917	35.2500	120.5000	5.3	0.033	42.4
12/20/1994	35.9170	120.4650	5.0	0.028	42.8
6/28/1966	35.9700	120.5000	5.1	0.029	43.2
11/16/1956	35.9500	120.4700	5.0	0.027	43.8
3/3/1901	36.0000	120.5000	5.5	0.035	44.4
8/18/1922	35.7500	120.3300	5.0	0.027	45.5
6/8/1934	35.8000	120.3300	6.0	0.044	46.4
3/10/1922	35.7500	120.2500	6.5	0.055	49.9
2/5/1947	36.2300	120.6500	5.0	0.024	50.9
11/4/1927	34.9000	120.7000	7.5	0.088	53.9
11/19/1927	35.0000	120.5000	5.0	0.023	54.2
6/11/1983	36.2500	120.4700	5.1	0.023	57.8
7/22/1983	36.2200	120.4000	6.0	0.037	58.8
7/25/1983	36.2100	120.3800	5.1	0.023	59.1
9/27/1938	36.4500	121.2500	5.0	0.022	59.2
12/27/1926	36.1700	120.3200	5.0	0.022	59.7
7/9/1983	36.2600	120.4000	5.3	0.025	60.9
10/25/1982	36.2860	120.4130	5.6	0.029	61.8

Ref: Blake – EQSEARCH, PGA (median value) based on Boore et al. (1997) Horizontal – Soils (310)

5.3 Seismic and Geologic Hazards

Historical evidence indicates that it is likely for at least one moderate to severe earthquake to occur at the site during the life of the project. During a moderate to severe earthquake occurring on the nearby faults, strong ground shaking of the site will probably occur. In addition to ground shaking, effects of seismic activity varies depending on the site and may generally include surface fault rupture, soil liquefaction, seismically-induced differential settlement, seismically induced landsliding, lateral spreading, earthquake-induced flooding, ground lurching, seiches, and tsunamis. Our seismic hazard

evaluation for the project location is discussed below. Additional quantitative backup analysis of slope stability and liquefaction, as required by Title 27 is also provided in Section 5.4.

Surface Fault Rupture - The site is not located within a currently designated State of California Earthquake Fault Zone for the Cambria Quadrangle. The potential for surface rupture resulting from the movement of an unknown fault is not known with certainty but is considered low.

Liquefaction Potential - Soil liquefaction is a phenomenon that occurs when saturated cohesionless soil layers, located within about 50 feet of the ground surface, lose strength during cyclic loading, as caused by earthquakes. During the loss of strength, the soil acquires "mobility" sufficient to permit both horizontal and vertical movements. Soils that are most susceptible to liquefaction are clean, loose, saturated, uniformly graded, fine-grained sands in the upper 50 feet and lie below the groundwater table. The factors known to influence liquefaction potential include soil type and depth, grain size, density, groundwater level, degree of saturation, and both the intensity and duration of ground shaking.

The site is mapped in an area considered to have low to moderate liquefaction susceptibility potential according to the Liquefaction Susceptibility Areas Map published in the San Luis Obispo County General Plan.

At the evaporation pond, loose layers of silty sand and sand with silt were encountered from 14 to 29 feet in boring B-4 and 11 to 14 feet in B-5, below the pond bottom. Based on our evaluation, liquefaction settlement at the pond level would be minimal since the potentially liquefiable layers are capped with thicker layers of non-liquefiable soils.

Seismically Induced Landslides - Seismically induced landslides and other slope failures are common occurrences in areas with significant ground slopes during or soon after earthquakes. A portion of the pipeline alignment along San Simeon Monterey Creek Road from approximate Stations 220 to 230 will be near the shoulder and adjacent/near to the edge of an existing slope. The subsurface along this reach of the pipeline is generally mapped as the relatively competent bedrock of the Franciscan Formation. Therefore, the potential for damage due to a seismically-induced landslide is low to moderate.

Lateral Spreading - Seismically induced lateral spreading involves lateral movement of earth materials due to ground shaking. Lateral spreading is characterized by near-vertical cracks with predominantly horizontal movement of the soil mass involved along potentially liquefiable layers. The topography at the project site and in the immediate vicinity is generally flat except for a portion of the pipeline alignment along San Simeon Monterey Creek Road and the berm for the evaporation pond. Under these circumstances, the potential for lateral spreading at the subject site is considered low.

Earthquake-Induced Flooding - Flooding may be caused by failure of nearby dams or other water retaining structures due to an earthquake. Based on our review of the San Luis Obispo County General

Plan, the sites of AWTP and evaporation pond are not mapped within an inundation area due to a potential dam break. The potential for earthquake-induced flooding is considered low.

Ground Lurching - Ground Lurching is the horizontal movement of soil located on relatively steep embankments. The movement can cause material to yield in the unsupported direction, forming a series of cracks separating the ground into rough blocks. Given the relatively flat topography at the site, the potential for ground lurching is considered very low.

Seiches - Seiches are large waves generated in enclosed bodies of water in response to ground shaking. There are no water storage structures or dams in the site vicinity except the containments within AWTP and Van Gordon Reservoir. Based on the Dam Inundation Map for San Luis Obispo County, the site is not mapped within an area with a potential for flooding. The potential for damage due to seiches is considered low.

Tsunamis - Tsunamis are tidal waves generated in large bodies of water by fault displacement or major ground movement. The site of the pond is within 2 miles from the Pacific Ocean. However, the general elevation of the site is of the order of 40 feet above sea level and therefore the potential of a tsunami reaching the site is considered low.

5.4 Slope Stability and Liquefaction Calculations

Ground Motion

Deterministic analysis was performed using the Ground Motion Prediction Equations based on the Next Generation Attenuation (NGA) West 2 Models. Analysis utilizing attenuation relationships by various developers were performed and a weighted average was used to calculate the estimated ground acceleration at the site. The analysis was based on Hosgri fault as the controlling fault with a MCE of 7.3. A weighted average PGA of 0.52g and 0.50g were estimated for a soft rock site (based on Vs = 560 m/s) and soil site (Vs=300 m/s), respectively.

Seismic coefficient for seismic slope stability calculation was derived from the screening analysis procedure of Stewart et al, (2003) which requires the maximum horizontal acceleration at the site to be evaluated based on site conditions of soft rock. Based on a maximum horizontal ground acceleration of 0.52g estimated at the site for soft rock condition (deterministic PGA for Hosgri fault) , a seismic coefficient of 0.243 was used. The PGA for liquefaction analysis was based on site conditions of soil.

Shear Strength Parameters

Because of the similar engineering characteristics of the berm fill and the underlying alluvium immediately below the berm, they have been combined for purposes of our slope stability evaluation. The berm fill and the underlying alluvial soils were generally classified as silt and clay classifying (ML, CL) with more than 50 percent fines in accordance with USCS for the slope stability evaluation. Selection of the soil properties were primarily based on direct shear test results, and correlations with

similar material types and published values. A total unit weight of 115 pcf, an effective friction angle of 28 degrees, and a cohesion of 100 psf were selected for the slope stability analysis.

Slope Stability Analysis

According to the Title 27 Regulations for Class II surface impoundment facilities, the ground motion is to be based on a site-specific deterministic analysis for the controlling fault and the Maximum Credible Earthquake (MCE). For seismic slope stability evaluation, a minimum FS of 1.5 is required.

The stability analyses were performed using the computer program SLOPE/W. Analysis was performed for circular slope failure based on the Spencer's method utilizing peak soil strengths. Based on the limited height and relatively flat slope inclination across the entire pond, analysis was performed at two locations. Section A-A' represents the most critical and conservative scenario with the steepest slope inclination.

Results indicated adequate stability for both the inner and outer slope with factor of safeties for the more critical section (A-A') ranged between 2.9 and 3.2 for static analysis and between 1.54 and 1.6 for seismic analysis. For section B-B' the values were higher. The calculated slope safety factor values are greater than the minimum required by Title 27.

Liquefaction Analysis

Liquefaction and seismic settlement analysis was performed by using LiquefyPro software. Based on a limited subsurface investigation at the evaporation pond, loose layers of silty sand and sand with silt were encountered below the pond bottom from 14 to 29 feet (24 to 39 feet below the top of berm) and below 48 feet in boring B-4 and 11 to 14 feet in B-5. Based on a magnitude of 7.3, a ground acceleration of 0.50g (soil, and a high groundwater of 10 feet below the pond bottom, the loose sandy layers are potentially liquefiable during a seismic event.

Seismically Induced Settlement

Based on the subsurface condition encountered in boring B-4 and B-5, the loose sandy layers are potentially susceptible to liquefaction. The liquefiable zone is anticipated to be variable and non-uniform across the pond. Seismically-induced settlements of two inches (at B-5) and slightly less than eight inches (at B-4) have been estimated in the liquefiable layers.

When liquefiable soil layers are beneath non-liquefiable layers, there is a mitigation effect due to soil arching. Literature related to this is available in Martin and Lew eds., 1999 and selected figures from this reference are reproduced in Appendix D. This suggests that when the thickness of the overlying non-liquefiable layer is at least as thick as the liquefiable layer, in theory there would be practically no surface manifestation of liquefaction settlement for certain level of ground acceleration. The site subsurface conditions in this case match such conditions, as the potentially liquefiable layer of approximate 14-foot thickness is located at approximate depths of 15 to 24 feet bgs (below bottom of pond or below top of berm respectively).

8.0 References

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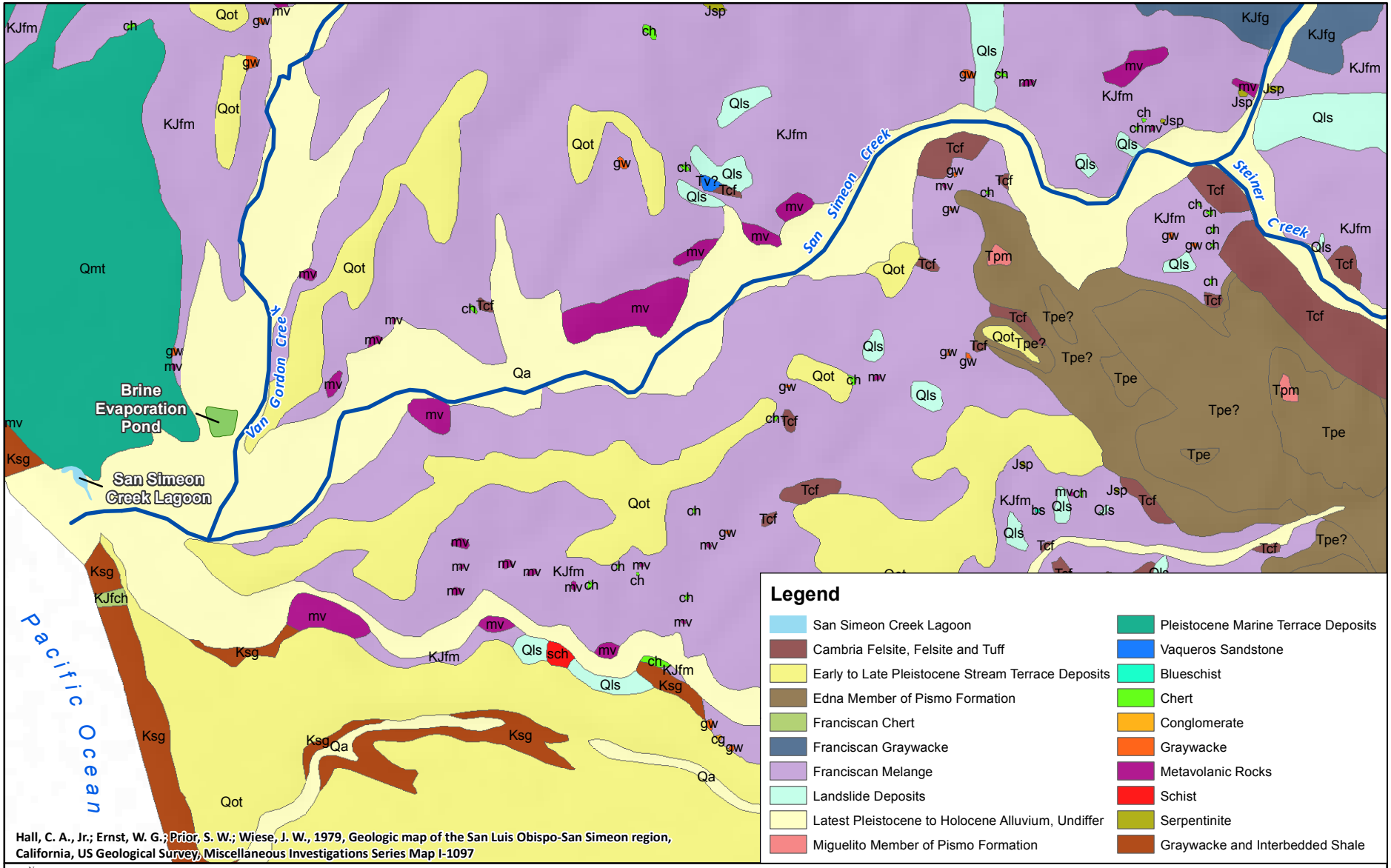
Attachments:

Figures
Figure 1 – Regional Geology Map
Figure 2 – Site Geology Map
Figure 3 – Cross-Sections
Figure 4 – Regional Fault Map

Appendices
Appendix A – Boring Logs
Appendix B – Laboratory and Field Test Results
Appendix C – Slope Stability Analysis
Appendix D – Liquefaction Analysis



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0 600 1,200 2,400
Feet

Cambria Emergency Water Supply Project

Figure 1
Regional Geology Map

CDM Smith

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VAN GORDON CREEK RD

SAN SIMEON MONTEREY CREEK RD

B-3

Qa

A

A'

B

B'

MW-3

B-4

B-5

B-5-1

B-5-2

EVAPORATION POND

Af

MW-1

MW-2

Qt

SAN SIMEON STATE PARK

VAN GORDON CREEK

39

34

29

29

39

49

Kjfme

Qt

Qa

EXIST WWPT EFFLUENT PERCOLATION PONDS

AWTP SITE

B-1

Qa

N

1" = 100'

50 0 100

LEGEND

Af	ARTIFICIAL FILL
Qa	ALLUVIAL DEPOSITS
Qt	TERRACE DEPOSITS
Kjfme	FRANCISCAN FORMATION
	APPROXIMATE GEOLOGIC CONTACT
?	QUERIED GEOLOGIC CONTACT
	APPROXIMATE BORING LOCATION
	DOUBLE RING INFILTROMETER TEST LOCATION
	MONITORING WELL LOCATION

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: J.W
DRAWN BY: O.N.
SHEET CHK'D BY: –
CROSS CHK'D BY: E. YOU
APPROVED BY: S. NEDIC
DATE: JULY 23, 2014

WARNING
0 1/2" 1"
IF THIS BAR SCALE DOES NOT MEASURE 1" THIS DWG HAS BEEN REDUCED SCALE ACCORDINGLY

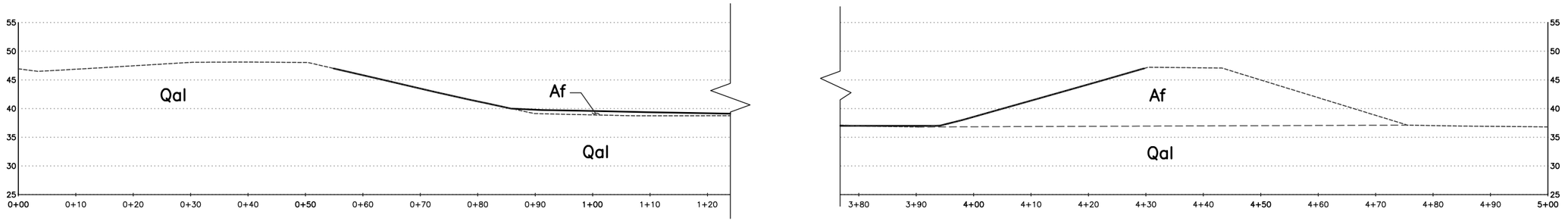
CDM Smith
111 Academy Way, Suite 150
Irvine, California 92617
Tel: (949) 752-5452

CAMBRIA EMERGENCY WATER SUPPLY PROJECT
CAMBRIA COMMUNITY SERVICES DISTRICT

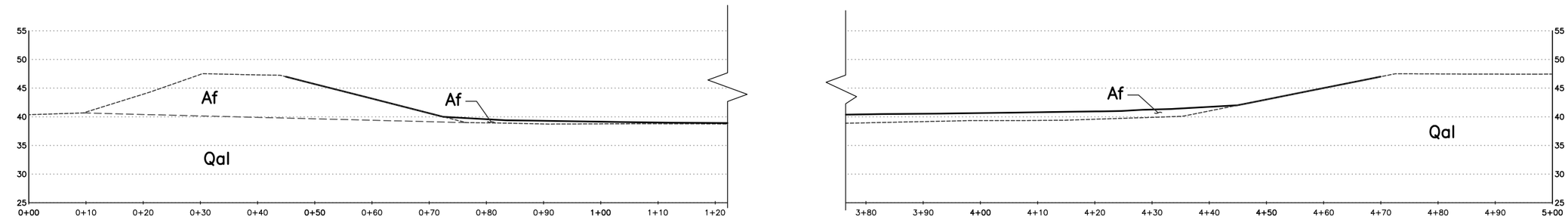
SITE GEOLOGY MAP

PROJECT NO. 138760-104133

DRAWING NO.
Figure 2



SECTION A–A'



SECTION B–B'

1" = 10'
5 0 10

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: S. MERCER
DRAWN BY: O. NAHHAS
SHEET CHK'D BY: O. PEKIN
CROSS CHK'D BY: E. YOU
APPROVED BY: S. NEDIC
DATE: JULY, 2014

WARNING
0 1/2" 1"
IF THIS BAR SCALE DOES NOT MEASURE 1" THIS DWG HAS BEEN REDUCED SCALE ACCORDINGLY

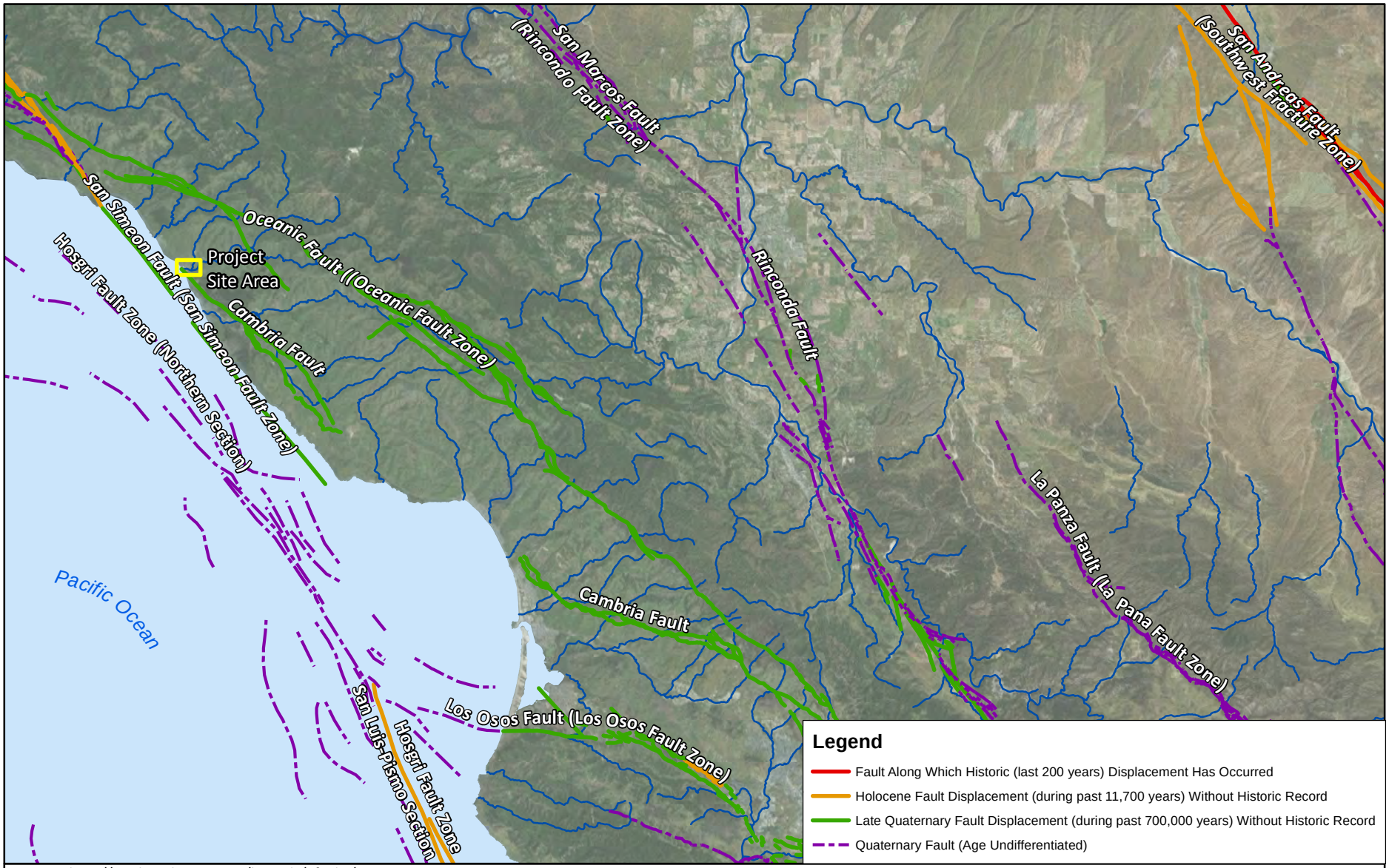
CDM Smith
111 Academy Way, Suite 150
Irvine, California 92617
Tel: (949) 752-5452

CAMBRIA EMERGENCY WATER SUPPLY PROJECT
CAMBRIA COMMUNITY SERVICES DISTRICT

GEOLOGIC CROSS-SECTION A-A' & B-B'

PROJECT NO. 138760–104133

DRAWING NO.
Figure 3



Source: http://earthquake.usgs.gov/hazards/qfaults/

6
Miles
1 in = 6 miles

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Cambria Emergency Water Supply Project

Figure 4
Regional Fault Map

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Appendix A

Boring Logs

SOIL CLASSIFICATION LEGEND

MAJOR DIVISIONS				TYPICAL NAMES
COARSE GRAINED SOILS More than half is larger than No. 200 sieve	GRAVELS More than half coarse fraction is larger than No. 4 sieve	Clean gravels with little or no fines	GW	Well graded gravels, gravel-sand mixtures
			GP	Poorly graded gravels, gravel-sand mixtures
		Gravel with over 12% fines	GM	Silty gravels, gravel-sand-silt mixtures
			GC	Clayey gravels, gravel-sand-clay mixtures
	SANDS More than half coarse fraction is smaller than No. 4 sieve	Clean sands with little or no fines	SW	Well graded sands, gravelly sands
			SP	Poorly graded sands, gravelly sands
		Sands with over 12% fines	SM	Silty sand, sand-silt mixtures
			SC	Clayey sands, sand-clay mixtures
FINE GRAINED SOILS More than half is smaller than No. 200 sieve	SILTS AND CLAYS Liquid limit less than 50		ML	Inorganic silts and very fine sands, rock flour, silty or clayey fine sands, or clayey silts with slight plasticity
			CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays
			OL	Organic clays and organic silty clays of low plasticity
	SILTS AND CLAYS Liquid limit greater than 50		MH	Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts
			CH	Inorganic clays of high plasticity, fat clays
			OH	Organic clays of medium to high plasticity, organic silts
HIGHLY ORGANIC SOILS			PT	Peat and other highly organic soils

SAMPLE TYPE SYMBOLS

- Disturbed bag or bulk sample
- Std. Penetration Test (2.0" OD)
- Type U Ring Sampler (3.25" OD)
- California Sampler (3.0" OD)
- Undisturbed Tube Sample
- G — Grab Sample
- Core Run
- Non-standard Penetration Test (with split spoon sampler)

CONTACT BETWEEN UNITS

- Change in geologic unit
- Soil type change within geologic unit
- Obscure or gradational change

DESCRIPTORS FOR SOIL STRATA AND STRUCTURE (ENGLISH/METRIC)

General Thickness or Spacing

Parting:	less than 1/16 in. (1/6 cm)
Seam:	1/16 to 1/2 in. (1/6 to 1 1/4 cm)
Layer:	1/2 to 12 in. (1 1/4 to 30 1/2 cm)
Stratum:	> 12 in. (30 1/2 cm)
Scattered:	< 1 per ft. (30 1/2 cm)
Numerous:	> 1 per ft. (30 1/2 cm)

Structure

Pocket:	Erratic, discontinous deposit of limited extent
Lens:	Lenticular deposit
Varved:	Alternating seams of silt and clay
Laminated:	Alternating seams
Interbedded:	Alternating layers

General Attitude

Near horizontal:	0 to 10 deg.
Low angle:	10 to 45 deg.
High angle:	45 to 80 deg.
Near Vertical:	80 to 90 deg.

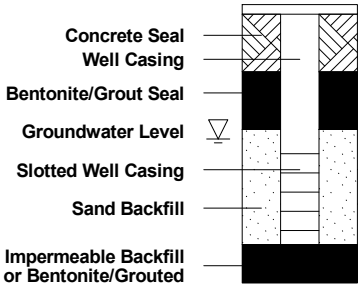
STRUCTURE DESCRIPTION (cont.)

Fractured	Breaks easily along definite fractured planes
Slickensided	Polished, glossy, fractured planes
Blocky, Diced	Breaks easily into small angular lumps
Sheared	Disturbed texture, mix of strengths
Homogenous	Same color and appearance throughout

MOISTURE DESCRIPTION

- Dry - Free of moisture, dusty
- Moist - Damp but no visible free water
- Wet - Visible free water, saturated

WELL COMPLETIONS



RELATIVE DENSITY OR CONSISTENCY VS. SPT N-VALUE

COARSE GRAINED			FINE GRAINED		
Density	N (blows/ft)	Approx. Relative Density (%)	Consistency	N (blows/ft)	Approx. Undrained Shear Str. (psf)
Very Loose	0 to 4	0 - 15	Very Soft	0 to 2	<250
Loose	4 to 10	15 - 35	Soft	2 to 4	250 - 500
Medium Dense	10 to 30	35 - 65	Medium Stiff	4 to 8	500 - 1000
Dense	30 to 50	65 - 85	Stiff	8 to 15	1000 - 2000
Very Dense	Over 50	85 - 100	Very Stiff	15 to 30	2000 - 4000
			Hard	over 30	>4000

PHYSICAL PROPERTY TEST

AL	-	Atterberg Limits
FC	-	Fines Content
GSD	-	Grain Size Distribution
MC	-	Moisture Content
MD	-	Moisture Content/Dry Density
Comp	-	Compaction Test (Proctor)
SG	-	Specific Gravity
CBR	-	California Bearing Ratio
RM	-	Resilient Modulus
Perm	-	Permeability
TXP	-	Triaxial Permeability
Cons	-	Consolidation
SE	-	Sand Equivalent
Corr	-	Corrosion
RV	-	R-Value
DS	-	Direct Shear
UC	-	Unconfined Compression
TX	-	Triaxial Compression
UU	-	Unconsolidated, Undrained
CU	-	Consolidated, Undrained
CD	-	Consolidated, Drained

Notes:

1. Sample descriptions in this report are based on visual field and laboratory observations, which include density/consistency, moisture condition, grain size, and plasticity estimates, and should not be construed to imply field or laboratory testing unless presented herein. Visual-manual classification methods in accordance with ASTM D 2488 were used as an identification guide. Where laboratory data are available, soil classifications are in general accordance with ASTM D 2487.
2. Dual symbols are used to indicate gravel and sand units with 5 to 12 percent fines.
3. In general blowcounts for non-SPT samples are not SPT N values for density or consistency relationships. Occasionally density and consistency were inferred from non-SPT blowcounts where SPT values were not available.

Cambria Community Services District
Cambria Emergency Water Supply Project
Cambria, CA

Project No: 138760-104133 Figure:

SOIL CLASSIFICATION/LEGEND CAMBRIA LOGS.GPJ CDM_BLLV.GDT 6/20/14 REV.

Boring Log B-1

Other Tests	Sample No.	Moisture Content (%)	Dry Density (pcf)	Relative Compaction (%)	Penetration Resistance (blows / 6 in.)	Depth (feet)	Sample	USCS	Symbol	DESCRIPTION	Elev. (feet)
FC, AL, EI, Corr, Comp	Bulk-1									**ALLUVIUM** Dark brown, moist, medium stiff, Sandy, Silty CLAY (CL), fine-grained sand, with fine roots. (pp >4.75 tsf)	
	S-1	11.7	83.6		4 5 8						20
	S-2	15	87.4		5 6 8	5				Stiff. (pp > 4.75 tsf)	
	S-3				4 4 4					Medium to dark brown, no roots. (pp > 4.75 tsf)	15
AL, Cons	S-4	19.3	103.6		5 7 12	10		CL		(pp = 3.5 tsf)	
											10
FC	S-5				1 2 2	15				Medium to dark grayish brown, soft. (pp = 0 - 0.8 tsf) 14.75': Very Sandy, Silty CLAY (CL).	
											5
Cons	S-6	26.1	98.7		2 4 4	20				Medium stiff, wet, Silty CLAY (CL), trace fine-grained sand. (pp = 0.5 tsf)	
										Medium grayish brown, wet, soft, very Sandy SILT (ML), fine-grained sand.	
								ML			0
	S-7				1 3 4	25				Grayish brown, wet, medium stiff, CLAY (CL), trace fine-grained sand. (pp = 0.5 - 1.25 tsf)	
											-5
GSD, AL	S-8	30.4			0 0			CL		Soft, very Sandy, Silty, CLAY (CL). 29.25': Blue gray, slightly Sandy, Silty CLAY (CL),	

Latitude/Longitude: 2418207.01 / 5634709.5
Surface Elevation: 23.2'
Logged By: Steve Mercer

Driller/ Drill Rig: S/G Drilling/CME75
Equipment/Hammer: 8-in HSA/Auto hammer
Date Completed: 5-30-14

CDM Smith

Cambria Community Services District
Cambria Emergency Water Supply Project
Cambria, CA

Boring Log B-1
Project No: 138760-104133

Figure:
1 of 2

NEIS_BORING_LOG CAMBRIA LOGS.GPJ DATA ENTRY.GDT 6/20/14 REV.

Boring Log B-1

Other Tests	Sample No.	Moisture Content (%)	Dry Density (pcf)	Relative Compaction (%)	Penetration Resistance (blows / 6 in.)	Depth (feet)	Sample	USCS	Symbol	DESCRIPTION	Elev. (feet)
					2					fine-grained sand. (pp = 0.2 tsf)	
											-10
	S-9				1 2 3	35				Medium stiff. (pp = 0.5 - 0.75 tsf) Blue gray, wet, soft, slightly Sandy SILT (ML), fine-grained sand. (pp = 0 - 0.1 tsf)	
								ML			-15
	S-10				1 3 3	40				Blue gray, wet, medium stiff, slightly Sandy, Silty CLAY (CL), fine-grained sand. (pp = 0.25 - 1.0 tsf)	
											-20
GSD, AL	S-11	28			0 0 3	45				Soft. (pp = 0.25 tsf)	
								CL			-25
	S-12				0 0 3	50				With pockets of very Sandy, Silty, CLAY (CL). (pp = 0 - 0.4 tsf)	
											-30
	S-13				1 2 4	55				Medium stiff, fine- to coarse-grained sand, mostly fine, trace of fine to coarse, subangular to subrounded gravel. (pp = 0 - 0.25 tsf)	
										End of boring at 55.5 ft bgs. Groundwater measured at 13.5 ft bgs upon completion of drilling. Bore hole backfilled with cuttings upon completion of drilling. pp = Pocket penetrometer unconfined compression test. Northing/Easting and elevation from survey by North Coast Engineering (May 2014)	-35

Latitude/Longitude: 2418207.01 / 5634709.5
Surface Elevation: 23.2'
Logged By: Steve Mercer

Driller/ Drill Rig: S/G Drilling/CME75
Equipment/Hammer: 8-in HSA/Auto hammer
Date Completed: 5-30-14

CDM Smith

Cambria Community Services District
Cambria Emergency Water Supply Project
Cambria, CA

Boring Log B-1
Project No: 138760-104133

Figure:
2 of 2

NEIS_BORING_LOG CAMBRIA LOGS.GPJ DATA ENTRY.GDT 6/20/14 REV.

Boring Log B-2

Other Tests	Sample No.	Moisture Content (%)	Dry Density (pcf)	Relative Compaction (%)	Penetration Resistance (blows / 6 in.)	Depth (feet)	Sample	USCS	Symbol	DESCRIPTION	Elev. (feet)
FC, AL	Bulk-1									**FRANCISCAN FORMATION** Weathered bedrock: Brown, moist, very Clayey SAND (SC), fine- to coarse-grained, mostly fine to medium, with fine to coarse subangular gravel.	
	S-1				6 10 15					Orange brown, medium dense, no gravel, only fine-grained sand. (pp > 4.75 tsf)	
	S-2	10.7	99.9		25 50/2"	5				Brown to orange brown, very dense, fine- to coarse-grained sand, mostly fine to medium. (pp > 4.75 tsf)	80
FC	S-3				50/3"			SC		Orange brown, trace fine subangular gravel.	
	S-4				50/4"	10					75
	S-5				50/3"						
						15					70
										End of boring at 15.5 ft bgs. Groundwater not encountered. Bore hole backfilled with cuttings upon completion of drilling. pp = Pocket penetrometer unconfined compression test. Northing/Easting and elevation from survey by North Coast Engineering (May 2014)	
						20					65
						25					60
											55

Latitude/Longitude: 2419038.48 / 5635661.89
Surface Elevation: 84.7'
Logged By: Steve Mercer

Driller/ Drill Rig: S/G Drilling/CME75
Equipment/Hammer: 8-in HSA/Auto hammer
Date Completed: 5-30-14

CDM Smith

Cambria Community Services District
Cambria Emergency Water Supply Project
Cambria, CA

Boring Log B-2
Project No: 138760-104133

Figure: 1 of 1

NEIS_BORING_LOG CAMBRIA LOGS.GPJ DATA ENTRY.GDT 6/20/14 REV.

Boring Log B-3

Other Tests	Sample No.	Moisture Content (%)	Dry Density (pcf)	Relative Compaction (%)	Penetration Resistance (blows / 6 in.)	Depth (feet)	Sample	USCS	Symbol	DESCRIPTION	Elev. (feet)
FC, Corr	Bulk-1							SC		**ALLUVIUM** Brown, moist, Clayey SAND (SC), fine- to coarse-grained, fine to medium-grained, with fine and coarse, subangular to subrounded gravel.	50
	S-1	10.1	99.9		6 4 2					Dark brown, moist, soft, Sandy SILT (ML), fine-grained sand, trace of fine, subangular to subrounded gravel, trace clay.	
	S-2				1 1 1	5		ML		Dark brown, moist, very soft, Sandy to very Sandy SILT (ML), fine- to medium-grained sand, mostly fine, trace clay, with pockets of very silty sand and 3" seam of sand at 5.75 ft. (pp = 0.2 tsf)	45
AL	S-3	25.1	94.6		0 0 2					Grayish brown to gray, moist, soft, Silty CLAY (CL), trace fine-grained sand. 7.5': with 2" seam of fine- to coarse-grained sand at 8 ft. 8.2': Black, trace fine-grained sand. (pp = 0.1 tsf)	
GSD	S-4				2 1 1	10		CL		10': Dark grayish brown, soft, trace of orange brown, fine to coarse, sandstone gravel. (pp = 0.25 tsf)	40
	S-5				1 3 3	15				14 -15': Brown to grayish brown, medium stiff, trace subangular to subrounded gravel. pp = 0.17 - 0.25 tsf	35
										End of boring at 15.5 ft bgs. Groundwater not encountered. Bore hole backfilled with cuttings upon completion of drilling. pp = Pocket penetrometer unconfined compression test. Northing/Easting and elevation from survey by North Coast Engineering (May 2014)	
						20					30
						25					25

Latitude/Longitude: 2418918.73 / 5634171.8
Surface Elevation: 50.4'
Logged By: Steve Mercer

Driller/ Drill Rig: S/G Drilling/CME75
Equipment/Hammer: 8-in HSA/Auto hammer
Date Completed: 5-30-14

CDM Smith

Cambria Community Services District
Cambria Emergency Water Supply Project
Cambria, CA

Boring Log B-3
Project No: 138760-104133

Figure: 1 of 1

NEIS_BORING_LOG CAMBRIA LOGS.GPJ DATA ENTRY.GDT 6/20/14 REV.

Boring Log B-4

Other Tests	Sample No.	Moisture Content (%)	Dry Density (pcf)	Relative Compaction (%)	Penetration Resistance (blows / 6 in.)	Depth (feet)	Sample	USCS	Symbol	DESCRIPTION	Elev. (feet)
										BERM FILL Dark brown, moist, medium stiff, Sandy SILT and Clayey SAND (ML/SC), fine-grained sand, trace fine to coarse, subangular to subrounded gravel, with fine roots.	
	Bulk-1							ML			
GSD, AL	S-1				5 3 4						45
	S-2				2 2 2	5		SC		Yellowish brown, moist, loose, slightly Gravelly, very Clayey SAND (SC), fine- to medium-grained, mostly fine, subangular to subrounded fine gravel.	
										Brown, moist, soft, Sandy CLAY (CL), fine-grained sand.	
	S-3	22.5	92.6		3 3 5			CL		8': Dark grayish brown with black, stiff.	40
										ALLUVIUM	
FC, AL	S-4				2 3 3	10		CL		Black, medium stiff. (pp = 0.8 tsf) 10.5': Gray with yellowish brown mottling.	35
GSD, Perm	S-5	13	106.4		3 9 8	15		SC		Grayish brown, moist, medium dense, Gravelly, Clayey SAND (SC), fine-grained, fine to coarse subangular to subrounded gravel. 15.3': Olive brown, no more gravel.	30
	S-6				1 2 3	20		CL		Olive brown, moist, medium stiff, Sandy CLAY (CL), fine-grained sand. (pp = 0.7 tsf)	25
GSD	S-7	6.4	98.9		4 6 5	25		SP-SM		Dark brown, moist, loose, SAND with Silt (SP-SM), fine- to coarse-grained, mostly fine to medium, trace fine to coarse, subangular to subrounded gravel.	20
	S-8				3 3					Dark brown, wet, loose, Silty SAND (SM), fine- to coarse-grained, mostly fine to medium, trace fine to coarse,	

Latitude/Longitude: 5634299.38 / 2418813.49
Surface Elevation: 47.6'
Logged By: Steve Mercer

Driller/ Drill Rig: S/G Drilling/CME75
Equipment/Hammer: 8-in HSA/Auto hammer
Date Completed: 5-29-14

CDM Smith

Cambria Community Services District
Cambria Emergency Water Supply Project
Cambria, CA

Boring Log B-4
Project No: 138760-104133

Figure:
1 of 2

NEIS_BORING_LOG CAMBRIA LOGS.GPJ DATA ENTRY.GDT 6/20/14 REV.

Boring Log B-4

Other Tests	Sample No.	Moisture Content (%)	Dry Density (pcf)	Relative Compaction (%)	Penetration Resistance (blows / 6 in.)	Depth (feet)	Sample	USCS	Symbol	DESCRIPTION	Elev. (feet)
					2					subangular to subrounded gravel. 30': 1" lens of clay.	
	S-9				4 3 4	35		SM		Very Gravelly, Silty SAND (SM). Sand heaved up 1 ft. into auger casing after pulling out sampler at 35 ft.	15
FC, AL	S-10				0 2 3	40				Blue gray, wet, medium stiff, Sandy, Silty CLAY (CL), fine-grained sand. (pp = 0.25 tsf)	10 5
	S-11				0 4 4	45		CL		(pp = 0.75 tsf)	0
	S-12				0 0 5	50				Fine- to medium grained sand, also with small pockets of Sand. End of boring at 50.5 ft bgs. Groundwater meaured at 28 ft bgs upon completion of drilling. Bore hole backfilled with cuttings upon completion of drilling. pp = Pocket penetrometer unconfined compression test. Northing/Easting and elevation from survey by North Coast Engineering (May 2014)	-5
						55					-10

Latitude/Longitude: 5634299.38 / 2418813.49
Surface Elevation: 47.6'
Logged By: Steve Mercer

Driller/ Drill Rig: S/G Drilling/CME75
Equipment/Hammer: 8-in HSA/Auto hammer
Date Completed: 5-29-14

CDM Smith

Cambria Community Services District
Cambria Emergency Water Supply Project
Cambria, CA

Boring Log B-4
Project No: 138760-104133

Figure:
2 of 2

NEIS_BORING_LOG CAMBRIA LOGS.GPJ DATA ENTRY.GDT 6/20/14 REV.

Boring Log B-5

Other Tests	Sample No.	Moisture Content (%)	Dry Density (pcf)	Relative Compaction (%)	Penetration Resistance (blows / 6 in.)	Depth (feet)	USCS	Symbol	DESCRIPTION	Elev. (feet)
GSD, AL	Bulk-1								**ALLUVIUM** Dark brown, moist, stiff, Sandy, Silty CLAY (CL), fine- to medium-grained sand, trace fine gravel, with fine roots. (pp > 4.75 tsf)	
	S-1	14.9	94.5		6 6 8					35
	S-2				3 3 5	5	CL		Dark grayish brown. (pp > 4.75 tsf)	
GSD, Perm	S-3	15.3	98.1		5 10 12				Dark brown, no gravel. (pp = 4.5 tsf)	30
	S-4				3 5 8	10			(pp = 4.0 tsf)	
							SM		Yellowish brown, moist, medium dense, Silty SAND (SM), fine-grained.	
	S-5				3 5 8	15			Dark brown, moist, medium stiff, Silty CLAY (CL), trace fine- to medium-grained sand. (pp = 1.6 tsf) 15.25': Dark Yellowish brown, Sandy, Silty CLAY (CL).	25
FC, AL	S-6				0 0 1	20			Dark grayish brown, wet, very soft, very Sandy, Silty CLAY (CL), fine-grained sand, trace fine gravel, with pockets of fine- to medium-grained Sand. (pp = 0.25 tsf)	20
FC	S-7	25.6	97.1		3 6 5	25			Brown, medium stiff, fine- to coarse-grained sand, mostly fine to medium, no more pockets of Sand.	15
	S-8				1 2				Moist, Silty CLAY (CL), with wood chips (pp = 0.75 tsf)	10

Latitude/Longitude: 5634209.51 / 2418805.4
Surface Elevation: 39.3'
Logged By: Steve Mercer
Driller/ Drill Rig: S/G Drilling/CME75
Equipment/Hammer: 8-in HSA/Auto hammer
Date Completed: 5-29-14

CDM Smith

Cambria Community Services District
Cambria Emergency Water Supply Project
Cambria, CA

Boring Log B-5
Project No: 138760-104133

Figure: 1 of 2

NEIS_BORING_LOG CAMBRIA LOGS.GPJ DATA ENTRY.GDT 6/20/14 REV.

Boring Log B-5

Other Tests	Sample No.	Moisture Content (%)	Dry Density (pcf)	Relative Compaction (%)	Penetration Resistance (blows / 6 in.)	Depth (feet)	Sample	USCS	Symbol	DESCRIPTION	Elev. (feet)
					3					30': Browish gray to gray.	
								CL			
GSD, AL	S-9				1 2 1	35				Blue gray, wet, soft, very Sandy, Silty CLAY (CL), fine-grained sand, trace fine gravel, with pockets of fine- to coarse grained Sand. (pp = 0.2 tsf)	5
	S-10				1 1 3	40				Sandy, Silty CLAY (CL), no more pockets of Sand. (pp = 0 - 0.25 tsf)	0
	S-11				0 0 1	45				Very soft, with shell fragments. (pp = 0.25 tsf)	-5
FC	S-12				1 3 5	50		SP-SM		Blue gray, wet, loose, Silty SAND (SM), fine- to medium-grained sand. 50.25': 2" lens of sandy clay. End of boring at 50.5 ft bgs. Groundwater meaured at 20 ft bgs upon completion of drilling. Bore hole backfilled with cuttings upon completion of drilling. pp = Pocket penetrometer unconfined compression test. Northing/Easting and elevation from survey by North Coast Engineering (May 2014)	-10
						55					-15
											-20

Latitude/Longitude: 5634209.51 / 2418805.4
Surface Elevation: 39.3'
Logged By: Steve Mercer

Driller/ Drill Rig: S/G Drilling/CME75
Equipment/Hammer: 8-in HSA/Auto hammer
Date Completed: 5-29-14

CDM Smith

Cambria Community Services District
Cambria Emergency Water Supply Project
Cambria, CA

Boring Log B-5
Project No: 138760-104133

Figure:
2 of 2

NEIS_BORING_LOG CAMBRIA LOGS.GPJ DATA ENTRY.GDT 6/20/14 REV.

Boring Log B-6

Other Tests	Sample No.	Moisture Content (%)	Dry Density (pcf)	Relative Compaction (%)	Penetration Resistance (blows / 6 in.)	Depth (feet)	Sample	USCS	Symbol	DESCRIPTION	Elev. (feet)
GSD, Corr	Bulk-1									**ALLUVIUM** Dark brown to black, moist, medium stiff, Sandy, CLAY (CL), fine-grained sand (pp > 4.75 tsf)	20
	S-1				2 3 3						
	S-2	24.1	98.4		3 4 5	5				Dark Grayish Brown (pp = 0.25 - 3.0 tsf)	15
	S-3				2 2 2			CL		(pp = 1.5 - 1.75 tsf)	
	S-4	22.8	94.4		2 5 5	10				(pp = 0.2 - 0.5 tsf)	10
	S-5				0 0 2	15				14-14.5': Soft, Sandy, very Silty CLAY (CL) 14.5-15.5': Medium stiff, Sandy CLAY (CL) (pp = 0.25 tsf)	
										End of boring at 15.5 ft bgs. Groundwater meaured at 8 ft bgs upon completion of drilling. Bore hole backfilled with cuttings upon completion of drilling. pp = Pocket penetrometer unconfined compression test. Northing/easting and elevation from survey by North Coast Engineering (May 2014)	5
						20					0
						25					-5

Latitude/Longitude: 5633749.17 / 2417839.28
Surface Elevation: 21.3'
Logged By: Steve Mercer

Driller/ Drill Rig: S/G Drilling/CME75
Equipment/Hammer: 8-in HSA/Auto hammer
Date Completed: 5-30-14

CDM Smith

Cambria Community Services District
Cambria Emergency Water Supply Project
Cambria, CA

Boring Log B-6
Project No: 138760-104133

Figure: 1 of 1

NEIS_BORING_LOG CAMBRIA LOGS.GPJ DATA ENTRY.GDT 6/20/14 REV.

Appendix B

Laboratory and Field Test Results

SUMMARY OF LABORATORY TEST RESULTS

Client: CDM Smith
Project Name: Cambria Emergency Water Supply Project
Project No.: 138760-104133

HAI Project No: CDM-14-002
Performed by: JT
Date: 6/19/2014

Boring No.	Sample No.	Depth (ft)	In-situ Moisture Content (%)	In-situ Dry Density (pcf)	Modified Proctor (ASTM D1557)		Percent Passing #200 Sieve (ASTM D1140)	Atterberg Limits (ASTM D4318)			Particle-size Analysis of Soils (ASTM D422) (Percent Passing)											Consolidation (ASTM D2435)		Expansion Index (ASTM D4829)	Hydraulic Conductivity (ASTM D5084)	Corrosion			
					Optimum Moisture Content (%)	Maximum Dry Density (pcf)		LL	PL	PI	1 1/2 "	3/4 "	3/8 "	# 4	# 10	# 20	# 40	# 60	# 100	# 200	2µ	e_o	e_f		k (cm/sec)	pH	Sulfates (mg/kg)	Chlorides (mg/kg)	Minimum Resistivity (ohm-cm)
B-1	Bulk-1	0-5			13.2	119.8	71.0	38	18	20														70		6.9	18	16	3,180
	S-1	2.5-4	11.7	83.6																									
	S-2	5-6.5	15.0	87.4																									
	S-4	10-11.5						37	16	21												0.627	0.587						
	S-5	14-15.5					60.5																						
	S-6	19-20.5																				0.707	0.545						
	S-8	29-30.5	30.4					39	17	22					100.0	99.9	99.9	99.7	98.1	89.1	18.2								
	S-11	44-45.5	28.0					34	17	17				100.0	99.8	99.4	99.2	99.1	98.7	90.8	12.6								
B-2	Bulk-1	0-5					33.9	34	16	18																			
	S-2	5-6.5	10.7	99.9																									
	S-3	7.5-9					32.4																						
B-3	Bulk-1	0-5					46.3																			7.1	18	6.2	2,800
	S-1	2.5-4	10.1	99.9																									
	S-3	7.5-9	25.1	94.6				36	17	19																			
	S-4	10-11.5										100.0	97.5	95.7	92.0	89.5	87.0	83.6	79.6	68.6	22.9								
B-4	Bulk-1	0-5			10.1	127.1		30	16	14	100.0	99.6	96.6	93.0	86.7	82.4	78.4	70.0	58.3	41.4	12.9								
	S-3	7.5-9	22.5	92.6																									
	S-4	10-11.5					71.5	42	16	26																			
	S-5	14-15.5										100.0	95.1	84.6	72.2	62.0	47.2	35.3	29.7	23.9	7.5				6.07E-07				
	S-7	24-25.5	6.4	98.9								100.0	99.5	95.9	88.3	75.2	50.7	24.3	13.5	7.4									
	S-10	39-40.5					73.7	36	16	20																			
B-5	Bulk-1	0-5						43	17	26			100.0	99.8	99.2	97.5	95.3	91.2	85.8	72.9	24.5								
	S-1	2.5-4	14.9	94.5																									
	S-3	7.5-9												100.0	98.9	98.0	96.4	93.7	88.6	72.6	21.4				2.98E-06				
	S-6	19-20.5					68.2	39	16	23																			
	S-7	24-25.5	25.6	97.1			68.5																						
	S-9	34-35.5						35	15	20			100.0	99.9	97.4	93.3	86.9	74.4	63.6	52.0	15.6								
	S-12	49-50.5					25.6																						
B-6	Bulk-1	0-5											100.0	99.9	99.1	97.7	96.3	95.1	92.9	83.0	29.1					6.8	85	85	1,680
	S-2	5-6.5	24.1	98.4																									
	S-4	10-11.5	22.8	94.4																									

HUSHMAND ASSOCIATES, INC.
Geotechnical and Earthquake Engineers

MOISTURE CONTENT AND DRY DENSITY OF RING SAMPLES

Client: CDM Smith
Project Name: Cambria Emergency Water Supply Project
Project No.: 138760-104133

HAI Project No.: CDM-14-002
Performed by: BS/KL/PM
Checked by: JT
Date: 6/3/2014

Boring No.		**B-1**				**B-2**	**B-3**		**B-4**		**B-5**		**B-6**	
Sample No.		**S-1**	**S-2**	**S-8**	**S-11**	**S-2**	**S-1**	**S-3**	**S-3**	**S-7**	**S-1**	**S-7**	**S-2**	**S-4**
Depth (ft)		**2.5-4**	**5-6.5**	**29-30.5**	**44-45.5**	**5-6.5**	**2.5-4**	**7.5-9**	**7.5-9**	**24-25.5**	**2.5-4**	**24-25.5**	**5-6.5**	**10-11.5**
Total wt of rings and soil	gr	932.43	983.63			882.59	877.14	1112.02	1077.68	1018.27	1045.09	1138.50	1139.82	1094.59
Height of sample	in	6.00	6.00			5.00	5.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
Diameter of sample	in	2.42	2.42			2.42	2.42	2.42	2.42	2.42	2.42	2.42	2.42	2.42
Volume of sample	cu.ft	0.0159	0.0159			0.0133	0.0133	0.0159	0.0159	0.0159	0.0160	0.0159	0.0159	0.0159
Weight of rings	gr	258.01	258.01			215.01	215.01	258.01	258.01	258.01	258.01	258.01	258.01	258.01
Weight of soil	lbs.	1.487	1.600			1.472	1.460	1.883	1.807	1.676	1.735	1.941	1.944	1.844
Wet Density	pcf	93.4	100.5			110.6	110.0	118.3	113.5	105.3	108.6	121.9	122.1	115.9
Container No.		26	35	33	23	36	100	43	36	I91	35	I99	33	23
Weight of cont.+ wet soil	gr	103.75	91.96	74.30	63.65	89.25	123.30	84.88	82.64	380.27	80.38	309.34	81.00	81.32
Weight of cont.+ dry soil	gr	93.39	80.63	58.15	50.80	81.08	112.45	68.88	68.37	357.83	70.59	248.12	66.23	67.15
Weight of container	gr	5.14	4.95	4.94	4.94	5.03	5.23	5.06	5.03	8.50	4.95	8.54	4.95	4.94
Weight of water	gr	10.36	11.33	16.15	12.85	8.17	10.85	16.00	14.27	22.44	9.79	61.22	14.77	14.17
Weight of dry soil	gr	88.25	75.68	53.21	45.86	76.05	107.22	63.82	63.34	349.33	65.64	239.58	61.28	62.21
Moisture Content	**%**	**11.7**	**15.0**	**30.4**	**28.0**	**10.7**	**10.1**	**25.1**	**22.5**	**6.4**	**14.9**	**25.6**	**24.1**	**22.8**
Dry Density	**pcf**	**83.6**	**87.4**	**---**	**---**	**99.9**	**99.9**	**94.6**	**92.6**	**98.9**	**94.5**	**97.1**	**98.4**	**94.4**

HUSHMAND ASSOCIATES, INC.
Geotechnical and Earthquake Engineers

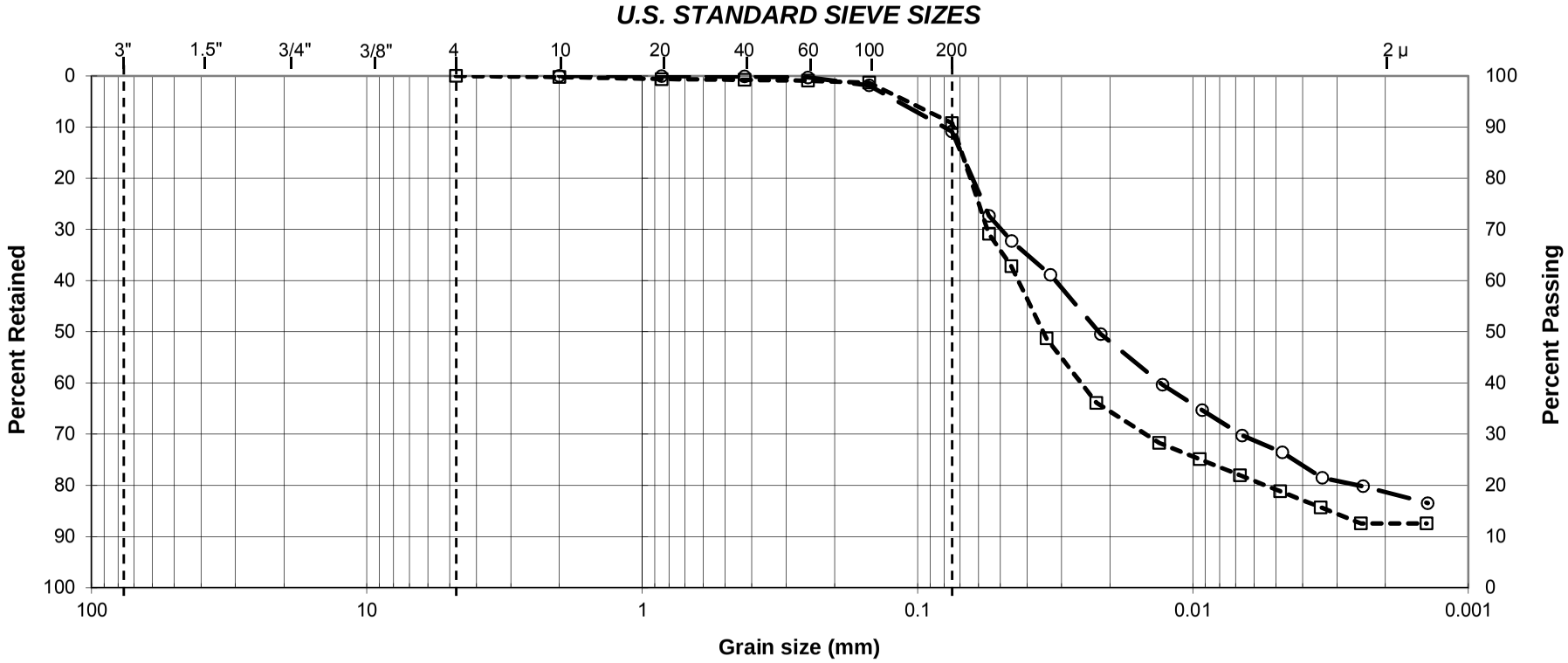
HUSHMAND ASSOCIATES, INC.
Geotechnical and Earthquake Engineers

PARTICLE-SIZE ANALYSIS OF SOILS
(ASTM D422)

Client: CDM Smith
Project Name: Cambria Emergency Water Supply Project
Project No.: 138760-104133

HAI Project No.: CDM-14-002
Tested by: BS/KL/PM
Checked by: JT
Date: 6/10/2014

COBBLES	GRAVEL		SAND			SILT AND CLAY
	Coarse	Fine	Coarse	Medium	Fine	



Boring No.	Sample No.	Symbol	LL	PI	USCS	% Gravel	% Sand	% Fines	2µ
B-1	S-8 @ 29-30.5'	○	39	22	Brown, Lean Clay (CL)	0.0	10.9	89.1	18.2
	S-11 @ 44-45.5'	□	34	17	Olive, Lean Clay (CL)	0.0	9.2	90.8	12.6

HUSHMAND ASSOCIATES, INC.
Geotechnical and Earthquake Engineers

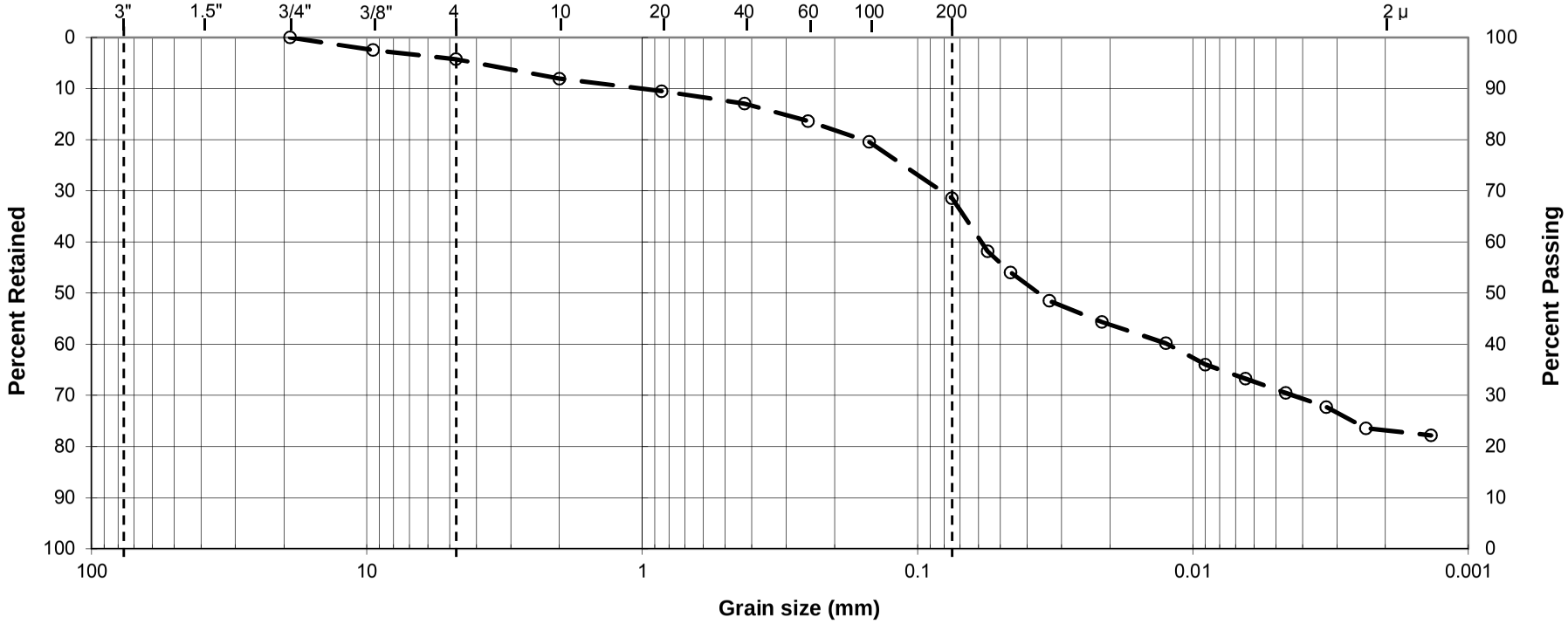
PARTICLE-SIZE ANALYSIS OF SOILS
(ASTM D422)

Client: CDM Smith
Project Name: Cambria Emergency Water Supply Project
Project No.: 138760-104133

HAI Project No.: CDM-14-002
Tested by: BS/KL/PM
Checked by: JT
Date: 6/10/2014

COBBLES	GRAVEL		SAND			SILT AND CLAY
	Coarse	Fine	Coarse	Medium	Fine	

U.S. STANDARD SIEVE SIZES



Boring No.	Sample No.	Symbol	LL	PI	USCS	% Gravel	% Sand	% Fines	2µ
B-3	S-4 @ 10-11.5'	○	---	---	Brown, Sandy Lean Clay (CL)	4.3	27.2	68.6	22.9

HUSHMAND ASSOCIATES, INC.
Geotechnical and Earthquake Engineers

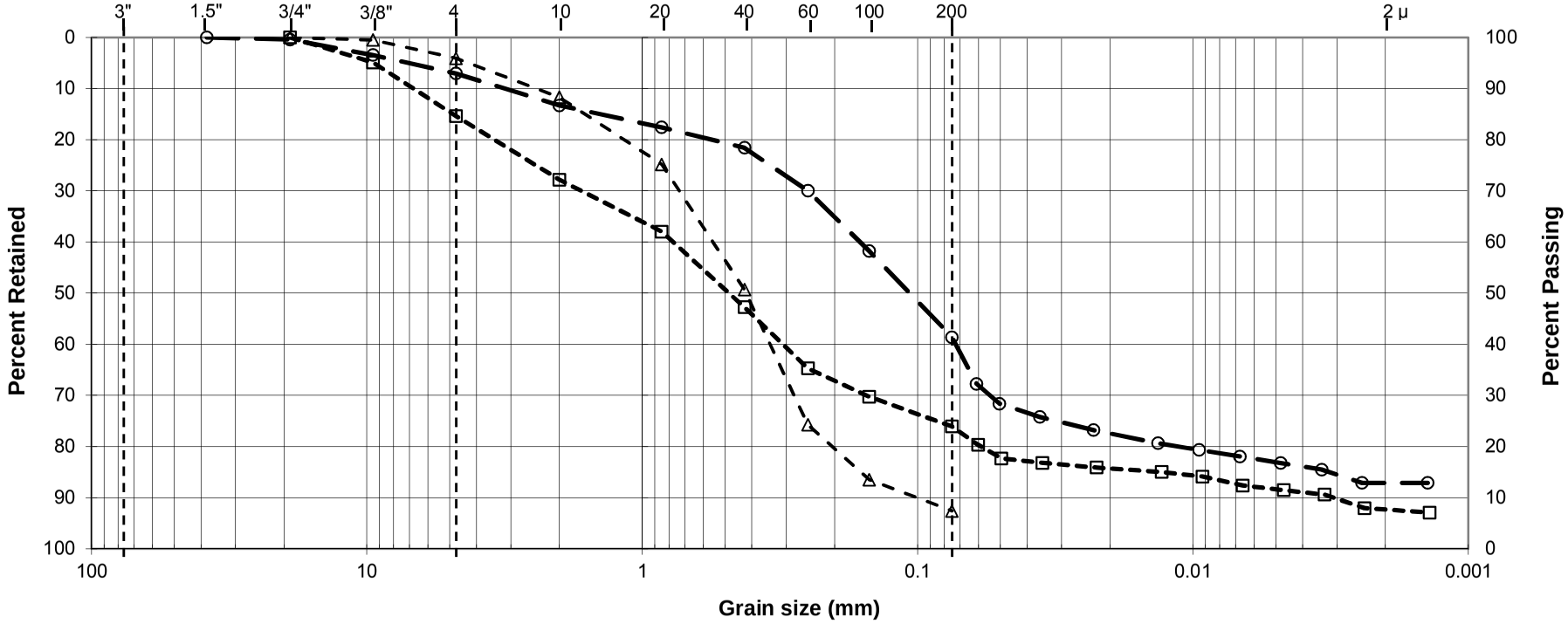
PARTICLE-SIZE ANALYSIS OF SOILS
(ASTM D422)

Client: CDM Smith
Project Name: Cambria Emergency Water Supply Project
Project No.: 138760-104133

HAI Project No.: CDM-14-002
Tested by: BS/KL/PM
Checked by: JT
Date: 6/10/2014

COBBLES	GRAVEL		SAND			SILT AND CLAY
	Coarse	Fine	Coarse	Medium	Fine	

U.S. STANDARD SIEVE SIZES



Boring No.	Sample No.	Symbol	LL	PI	USCS	% Gravel	% Sand	% Fines	2µ
B-4	B-1 @ 0-5'	○	30	14	Brown, Clayey Sand (SC)	7.0	51.6	41.4	12.9
	S-5 @ 14-15.5'	□	---	---	Brown, Clayey Sand with Gravel (SC) (*)	15.4	60.7	23.9	7.5
	S-7 @ 24-25.5'	Δ	---	---	Brown, Poorly Graded Sand with Silt (SP-SM)	4.1	88.5	7.4	---

(*) Same Sample as for the Permeability test

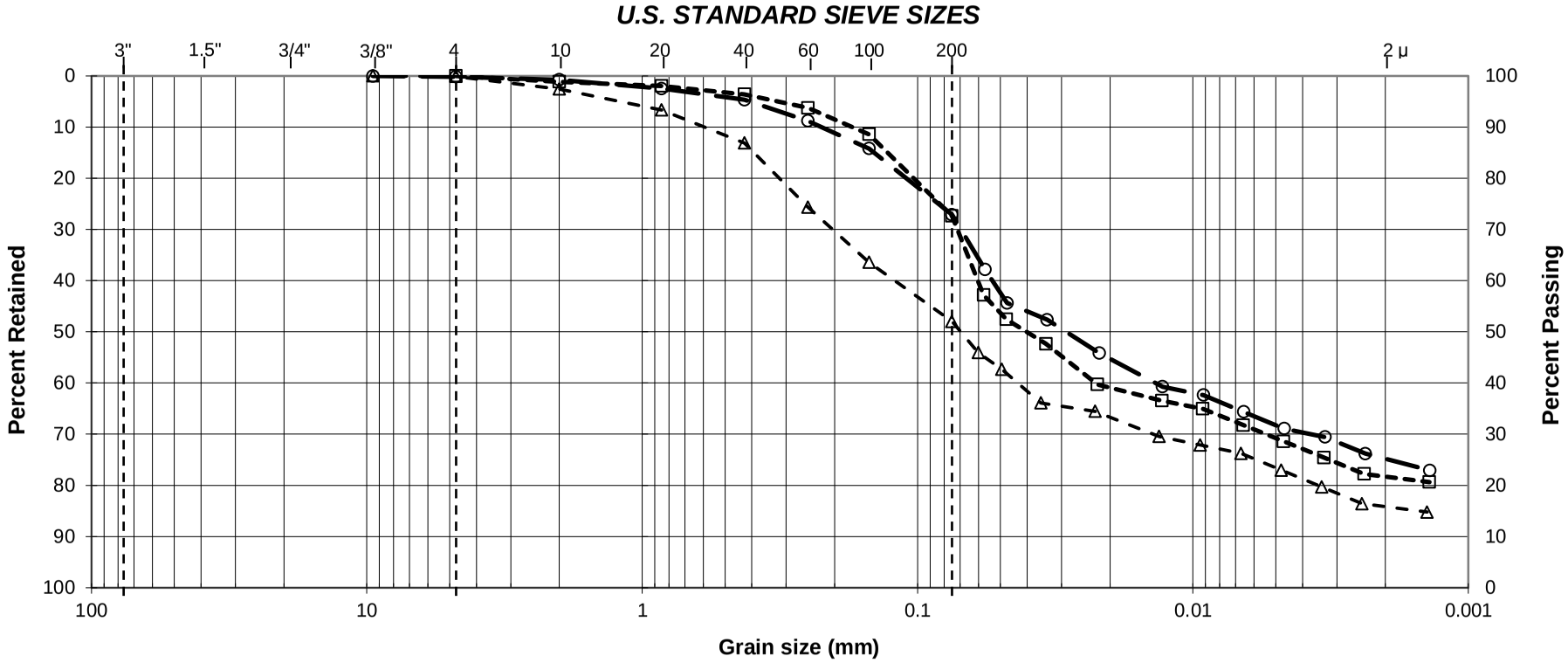
HUSHMAND ASSOCIATES, INC.
Geotechnical and Earthquake Engineers

PARTICLE-SIZE ANALYSIS OF SOILS
(ASTM D422)

Client: CDM Smith
Project Name: Cambria Emergency Water Supply Project
Project No.: 138760-104133

HAI Project No.: CDM-14-002
Tested by: BS/KL/PM
Checked by: JT
Date: 6/10/2014

COBBLES	GRAVEL		SAND			SILT AND CLAY
	Coarse	Fine	Coarse	Medium	Fine	



Boring No.	Sample No.	Symbol	LL	PI	USCS	% Gravel	% Sand	% Fines	2µ
B-5	B-1 @ 0-5'	○	43	26	Brown, Lean Clay with Sand (CL)	0.2	27.0	72.9	24.5
	S-3 @ 7.5-9'	□	---	---	Olive, Lean Clay with Sand (CL)	0.0	27.4	72.6	21.4
	S-9 @ 34-35.5'	Δ	35	20	Olive, Sandy Lean Clay (CL)	0.1	47.9	52.0	15.6

HUSHMAND ASSOCIATES, INC.
Geotechnical and Earthquake Engineers

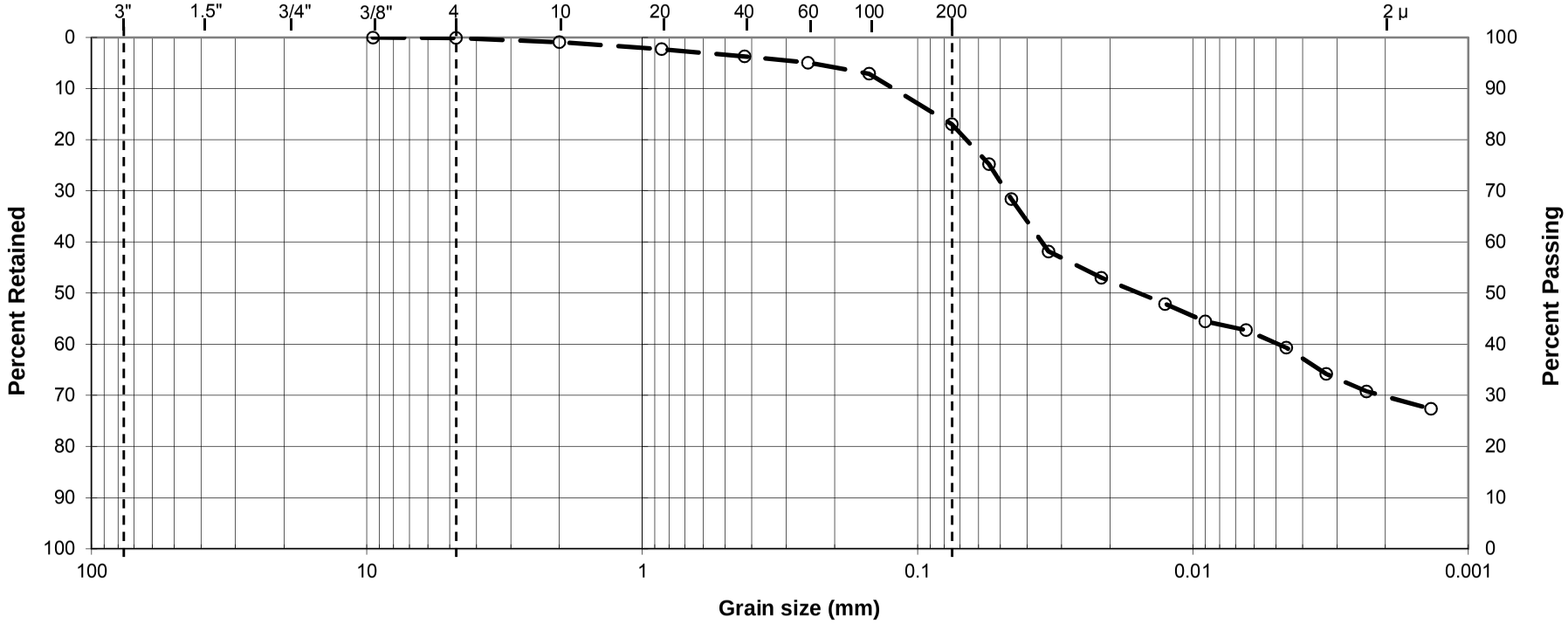
PARTICLE-SIZE ANALYSIS OF SOILS
(ASTM D422)

Client: CDM Smith
Project Name: Cambria Emergency Water Supply Project
Project No.: 138760-104133

HAI Project No.: CDM-14-002
Tested by: BS/KL/PM
Checked by: JT
Date: 6/10/2014

COBBLES	GRAVEL		SAND			SILT AND CLAY
	Coarse	Fine	Coarse	Medium	Fine	

U.S. STANDARD SIEVE SIZES



Boring No.	Sample No.	Symbol	LL	PI	USCS	% Gravel	% Sand	% Fines	2µ
B-6	B-1 @ 0-5'	○	---	---	Brown, Lean Clay with Sand (CL)	0.1	16.9	83.0	29.1

HUSHMAND ASSOCIATES, INC.
Geotechnical and Earthquake Engineers

PERCENT PASSING # 200 SIEVE
(ASTM D 1140)

Client: CDM Smith
Project Name: Cambria Emergency Water Supply Project
Project No.: 138760-104133

HAI Project No.: CDM-14-002
Performed by: BS/KL/PM
Checked by: JT
Date: 6/5/2014

Boring No.		**B-1**		**B-2**		**B-3**	**B-4**		**B-5**		
Sample No.		**Bulk 1**	**S-5**	**Bulk 1**	**S-3**	**Bulk 1**	**S-4**	**S-10**	**S-6**	**S-7**	**S-12**
Depth	**ft**	**0-5**	**14-15.5**	**0-5**	**7.5-9**	**0-5**	**10-11.5**	**39-40.5**	**19-20.5**	**24-25.5**	**49-50.5**
Soil Description		Brown, Lean Clay with Sand	Brown, Sandy Lean Clay	Reddish Brown, Clayey Sand	Reddish Brown, Clayey Sand	Brown, Clayey Sand	Dark Brown, Lean Clay with Sand	Olive Brown, Lean Clay with Sand	Brown, Sandy Lean Clay	Olive Brown, Sandy Lean Clay	Olive, Silty Sand
USCS		**CL**	**CL**	**SC**	**SC**	**SC**	**CL**	**CL**	**CL**	**CL**	**SM**
Weight of oven dry soil before wash + wt of container	gr	688.53	332.89	919.79	65.96	971.76	215.13	304.47	264.98	248.12	332.58
Weight of oven dry soil retained after # 200 wash + wt of container	gr	210.71	136.62	613.51	47.34	529.22	67.38	86.37	89.86	84.04	249.57
Weight of Container	gr	15.71	8.4	15.70	8.54	16.02	8.41	8.46	8.32	8.54	8.36
Weight of soil passing # 200 sieve	gr	477.82	196.27	306.28	18.62	442.54	147.75	218.10	175.12	164.08	83.01
Initial weight of oven dry soil	gr	672.82	324.49	904.09	57.42	955.74	206.72	296.01	256.66	239.58	324.22
Soil passing # 200 sieve	**%**	**71.0**	**60.5**	**33.9**	**32.4**	**46.3**	**71.5**	**73.7**	**68.2**	**68.5**	**25.6**

HUSHMAND ASSOCIATES, INC.
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EXPANSION INDEX
(ASTM D4829)

Client:	CDM Smith	***HAI Project No.:***	CDM-14-002
Project Name:	Cambria Emergency Water Supply Project	***Tested by:***	KL/PM
Project No.:	138760-104133	***Checked by:***	JT
Boring No:	**B-1**	***Date:***	6/12/2014
Sample No.:	**Bulk 1**	***Depth:***	**0-5'**
Soil Description:	Brown, Lean Clay with Sand (CL)		

MOLDED SPECIMEN		
Wt. of wet soil + cont.	**360.02**	g
Wt. of dry soil + cont.	**320.57**	g
Wt. of container **(I 86)**	**8.44**	g
Wt. of water	**39.45**	g
Wt. of dry soil	**312.13**	g
Moisture Content	**12.6**	%
Wt. of wet soil + ring	**576.17**	g
Wt. of ring	**206.74**	g
Wt. of wet soil	**369.43**	g
Wet density of soil	**111.9**	pcf
Dry density of soil	**99.4**	pcf
Specific gravity of soil	**2.70**	pcf
Saturation	**49.1**	%

MOISTURE CONTENT AT END OF TEST		
Wt. of wet soil + mold	**627.05**	g
Wt. of dry soil + mold	**535.72**	g
Wt. of mold	**206.74**	g
Wt. of water	**91.33**	g
Wt. of dry soil	**328.98**	g
Moisture Content	**27.8**	%

Date & time	**Elapsed time (min)**	**Dial Reading**	**Δh Expansion**
06/11 - 08:45	0	0	
06/11 - 08:50	10	-0.0009	
Add distilled water to sample			
06/12 - 08:45	1440	0.0695	0.0704

Expansion Index = 70

HUSHMAND ASSOCIATES, INC.
Geotechnical and Earthquake Engineers

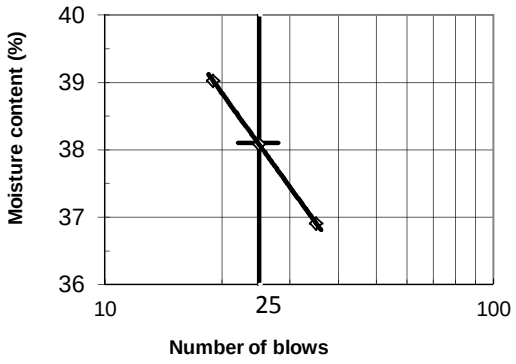
ATTERBERG LIMITS
(ASTM D 4318)

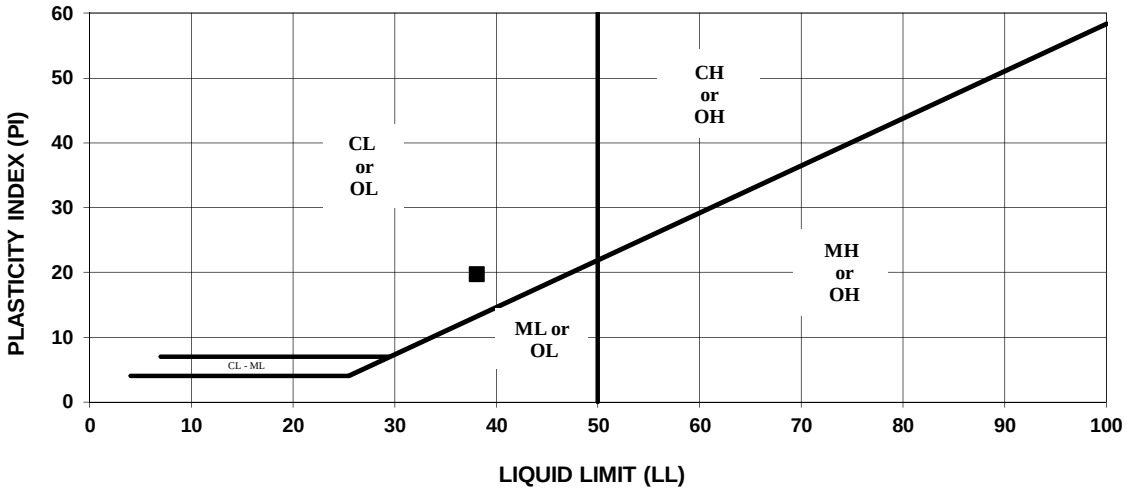
Client: CDM Smith
Project Name: Cambria Emergency Water Supply Project
Project No.: 138760-104133
Boring No.: **B-1**
Sample No.: **Bulk 1** ***Depth:*** **0-5'**
Soil Description: Brown, Lean Clay with Sand (CL)

HAI Project No.: CDM-14-002
Tested by: KL/PM
Checked by: JT
Date: 6/10/2014

Test		LL	LL	LL	PL	PL
Tare No.		18	26	28	F3	H2
No. of blows		**35**	**25**	**19**		
Wt. of wet soil + tare	(g)	22.92	24.01	22.35	10.57	10.61
Wt. of dry soil + tare	(g)	19.65	20.48	19.24	9.10	9.14
Wt. of tare	(g)	10.79	11.21	11.27	1.14	1.13
Water content	**(%)**	**36.9**	**38.1**	**39.0**	**18.5**	**18.4**

Liquid Limit	**38**
Plastic Limit	**18**
Plasticity Index	**20**
USCS	**CL**





HUSHMAND ASSOCIATES, INC.
Geotechnical and Earthquake Engineers

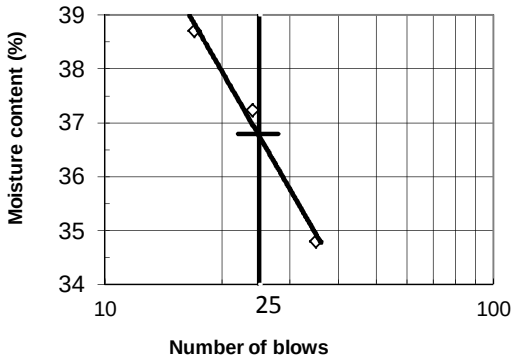
ATTERBERG LIMITS
(ASTM D 4318)

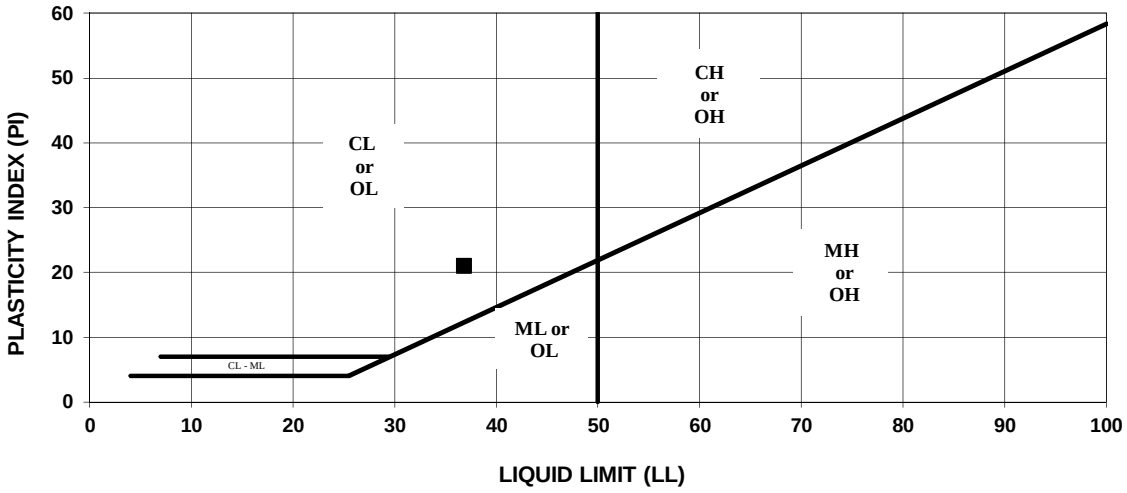
Client: CDM Smith
Project Name: Cambria Emergency Water Supply Project
Project No.: 138760-104133
Boring No.: **B-1**
Sample No.: **S-4** ***Depth:*** **10-11.5'**
Soil Description: Brown, Lean Clay with Sand (CL)

HAI Project No.: CDM-14-002
Tested by: KL/PM
Checked by: JT
Date: 6/10/2014

Test		LL	LL	LL	PL	PL
Tare No.		2	6	16	C7	B2
No. of blows		**35**	**24**	**17**		
Wt. of wet soil + tare	(g)	24.47	24.34	22.44	10.18	10.34
Wt. of dry soil + tare	(g)	21.00	20.74	19.27	8.95	9.08
Wt. of tare	(g)	11.03	11.07	11.08	1.12	1.12
Water content	**(%)**	**34.8**	**37.2**	**38.7**	**15.7**	**15.8**

Liquid Limit	**37**
Plastic Limit	**16**
Plasticity Index	**21**
USCS	**CL**





HUSHMAND ASSOCIATES, INC.
Geotechnical and Earthquake Engineers

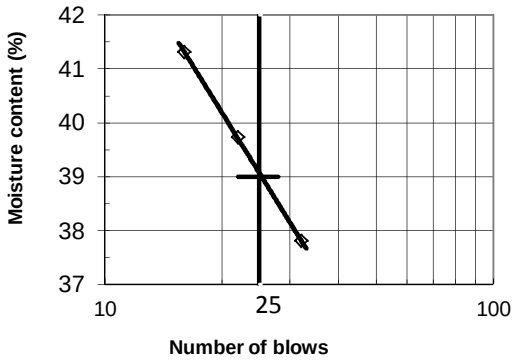
ATTERBERG LIMITS
(ASTM D 4318)

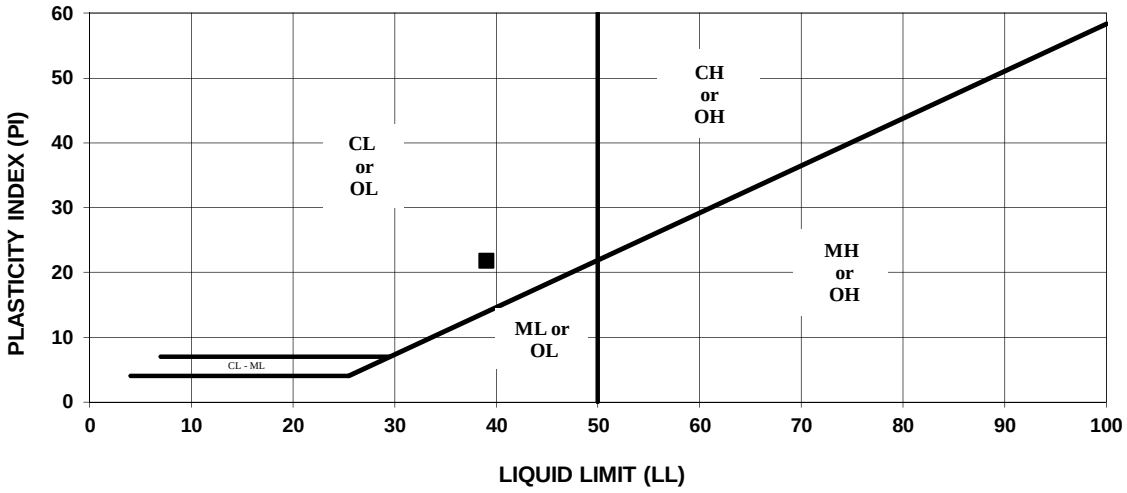
Client: CDM Smith
Project Name: Cambria Emergency Water Supply Project
Project No.: 138760-104133
Boring No.: **B-1**
Sample No.: **S-8** ***Depth:*** **29-30.5'**
Soil Description: Brown, Lean Clay (CL)

HAI Project No.: CDM-14-002
Tested by: KL/PM
Checked by: JT
Date: 6/10/2014

Test		LL	LL	LL	PL	PL
Tare No.		3	10	24	B3	B7
No. of blows		**32**	**22**	**16**		
Wt. of wet soil + tare	(g)	22.70	23.54	25.10	10.83	10.61
Wt. of dry soil + tare	(g)	19.52	19.98	21.08	9.41	9.22
Wt. of tare	(g)	11.11	11.02	11.35	1.13	1.13
Water content	**(%)**	**37.8**	**39.7**	**41.3**	**17.1**	**17.2**

Liquid Limit	**39**
Plastic Limit	**17**
Plasticity Index	**22**
USCS	**CL**





HUSHMAND ASSOCIATES, INC.
Geotechnical and Earthquake Engineers

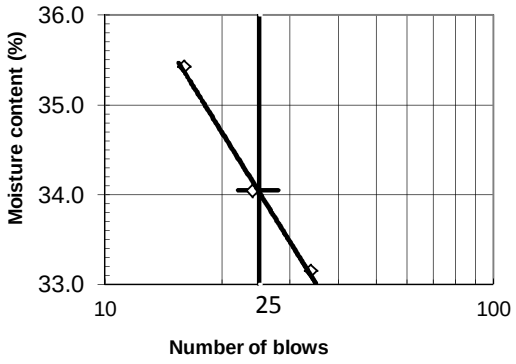
ATTERBERG LIMITS
(ASTM D 4318)

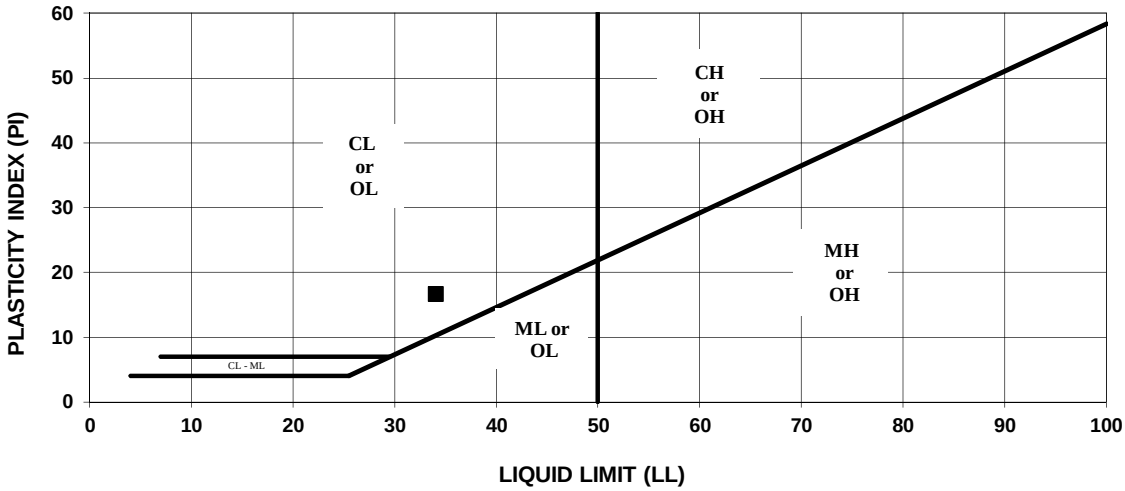
Client: CDM Smith
Project Name: Cambria Emergency Water Supply Project
Project No.: 138760-104133
Boring No.: **B-1**
Sample No.: **S-11** ***Depth:*** **44-45.5'**
Soil Description: Olive, Lean Clay (CL)

HAI Project No.: CDM-14-002
Tested by: KL/PM
Checked by: JT
Date: 6/10/2014

Test		LL	LL	LL	PL	PL
Tare No.		2	6	28	F3	C2
No. of blows		**34**	**24**	**16**		
Wt. of wet soil + tare	(g)	23.30	23.08	23.81	10.80	10.55
Wt. of dry soil + tare	(g)	20.24	20.03	20.53	9.37	9.15
Wt. of tare	(g)	11.01	11.07	11.27	1.13	1.14
Water content	**(%)**	**33.2**	**34.0**	**35.4**	**17.4**	**17.5**

Liquid Limit	**34**
Plastic Limit	**17**
Plasticity Index	**17**
USCS	**CL**





HUSHMAND ASSOCIATES, INC.
Geotechnical and Earthquake Engineers

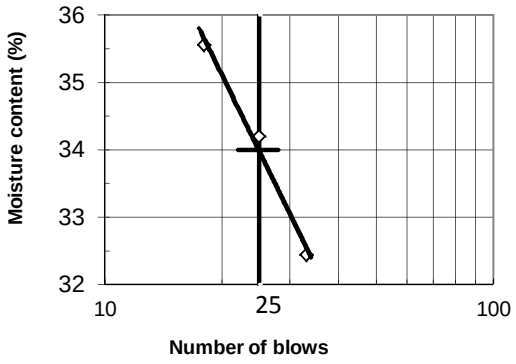
ATTERBERG LIMITS
(ASTM D 4318)

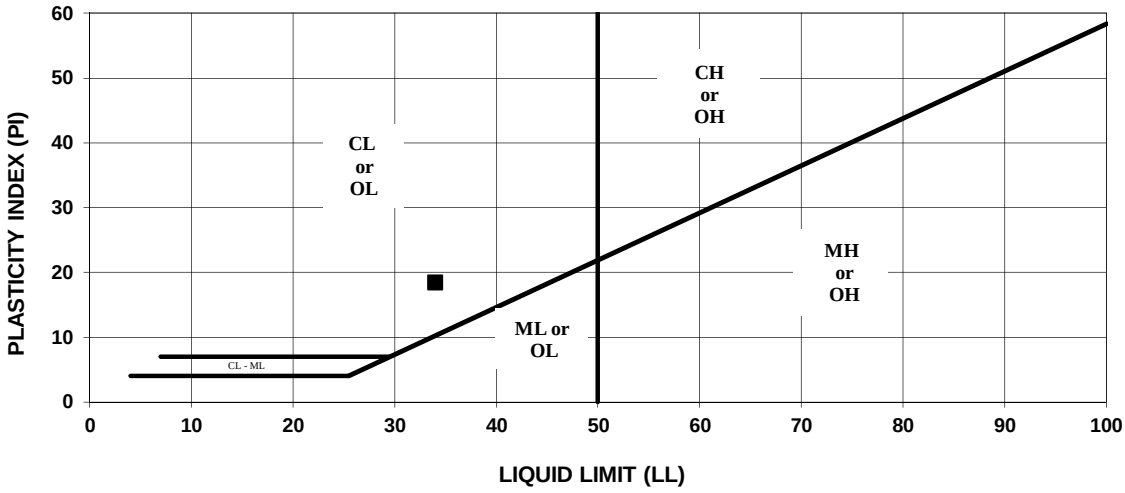
Client: CDM Smith
Project Name: Cambria Emergency Water Supply Project
Project No.: 138760-104133
Boring No.: **B-2**
Sample No.: **Bulk 1** ***Depth:*** **0-5'**
Soil Description: Reddish Brown, Clayey Sand (SC)
(Percent Passing # 200 < 50%)

HAI Project No.: CDM-14-002
Tested by: KL/PM
Checked by: JT
Date: 6/10/2014

Test		LL	LL	LL	PL	PL
Tare No.		1	4	7	B3	B7
No. of blows		**33**	**25**	**18**		
Wt. of wet soil + tare	(g)	23.23	23.99	23.80	10.49	10.23
Wt. of dry soil + tare	(g)	20.25	20.68	20.44	9.23	9.01
Wt. of tare	(g)	11.06	11.00	10.99	1.13	1.13
Water content	**(%)**	**32.4**	**34.2**	**35.6**	**15.6**	**15.5**

Liquid Limit	**34**
Plastic Limit	**16**
Plasticity Index	**18**
USCS	**CL**





HUSHMAND ASSOCIATES, INC.
Geotechnical and Earthquake Engineers

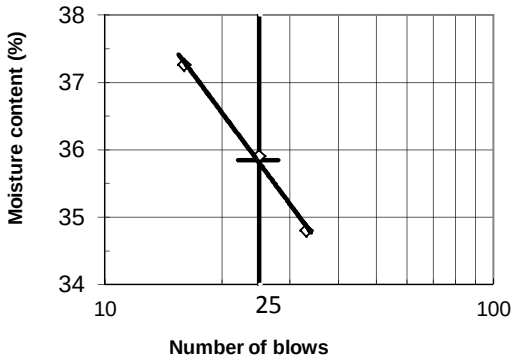
ATTERBERG LIMITS
(ASTM D 4318)

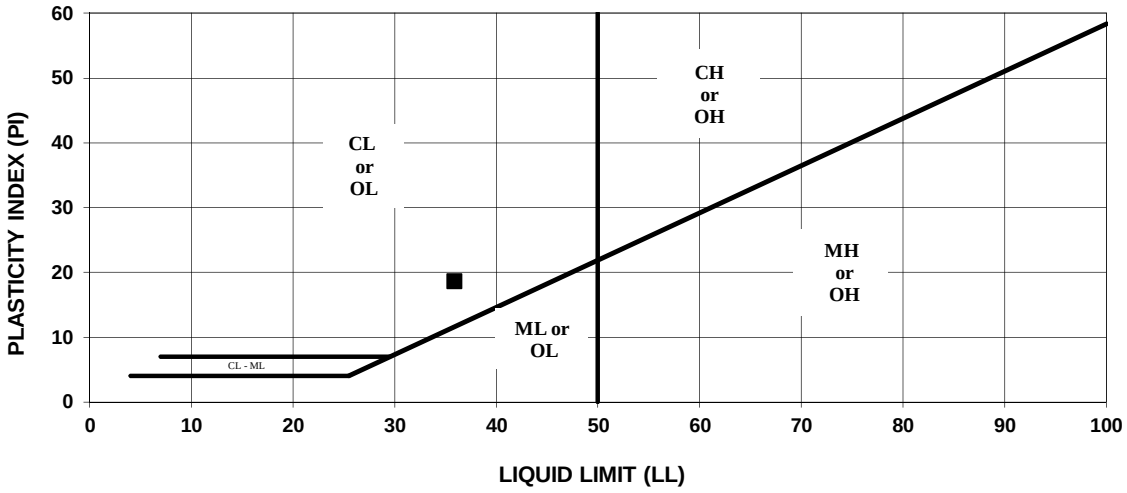
Client: CDM Smith
Project Name: Cambria Emergency Water Supply Project
Project No.: 138760-104133
Boring No.: **B-3**
Sample No.: **S-3** ***Depth:*** **7.5-9'**
Soil Description: Dark Brown , Sandy Lean Clay (CL)

HAI Project No.: CDM-14-002
Tested by: KL/PM
Checked by: JT
Date: 6/10/2014

Test		LL	LL	LL	PL	PL
Tare No.		8	11	13	B	B6
No. of blows		**33**	**25**	**16**		
Wt. of wet soil + tare	(g)	23.91	24.29	23.40	10.33	10.06
Wt. of dry soil + tare	(g)	20.60	20.71	20.02	8.98	8.75
Wt. of tare	(g)	11.09	10.74	10.95	1.12	1.13
Water content	**(%)**	**34.8**	**35.9**	**37.3**	**17.2**	**17.2**

Liquid Limit	**36**
Plastic Limit	**17**
Plasticity Index	**19**
USCS	**CL**





ATTERBERG LIMITS
(ASTM D 4318)

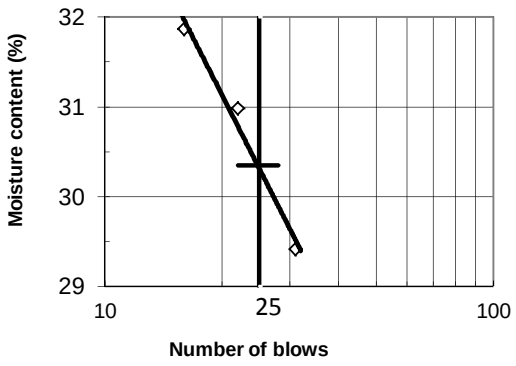
HUSHMAND ASSOCIATES, INC.
Geotechnical and Earthquake Engineers

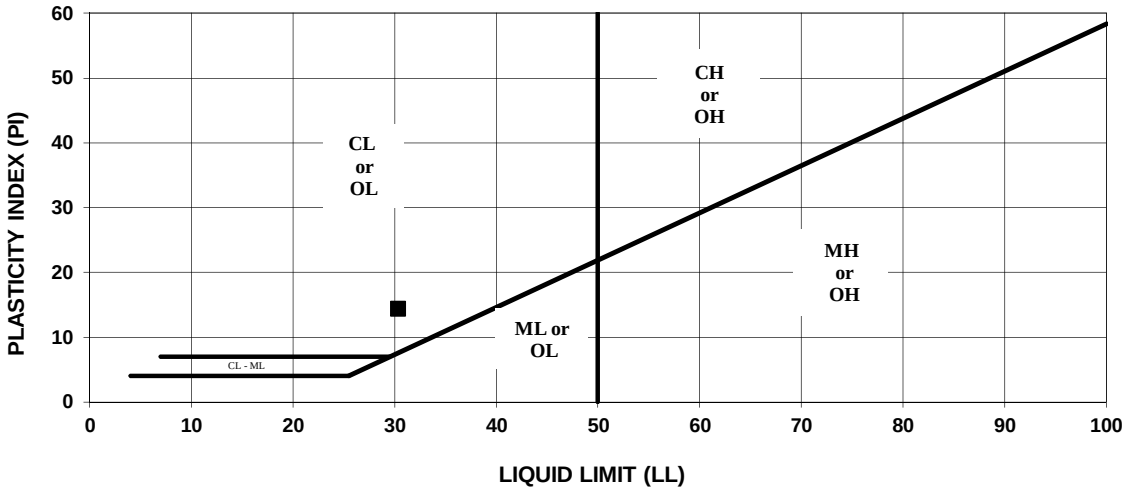
Client: CDM Smith
Project Name: Cambria Emergency Water Supply Project
Project No.: 138760-104133
Boring No.: **B-4**
Sample No.: **Bulk 1** ***Depth:*** **0-5'**
Soil Description: Brown, Clayey Sand (SC)
(Percent Passing #200 < 50%)

HAI Project No.: CDM-14-002
Tested by: KL/PM
Checked by: JT
Date: 6/10/2014

Test		LL	LL	LL	PL	PL
Tare No.		16	18	26	C7	A2
No. of blows		**31**	**22**	**16**		
Wt. of wet soil + tare	(g)	23.96	23.42	24.65	10.69	10.35
Wt. of dry soil + tare	(g)	21.03	20.43	21.40	9.38	9.07
Wt. of tare	(g)	11.07	10.78	11.20	1.12	1.11
Water content	**(%)**	**29.4**	**31.0**	**31.9**	**15.9**	**16.1**

Liquid Limit	**30**
Plastic Limit	**16**
Plasticity Index	**14**
USCS	**CL**





HUSHMAND ASSOCIATES, INC.
Geotechnical and Earthquake Engineers

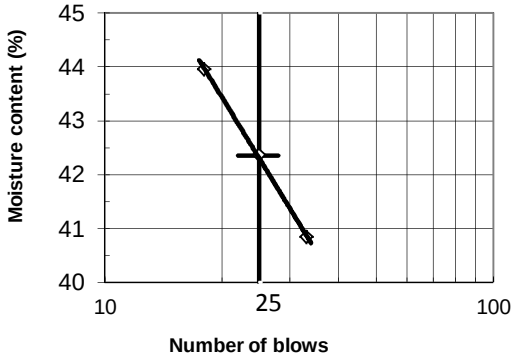
ATTERBERG LIMITS
(ASTM D 4318)

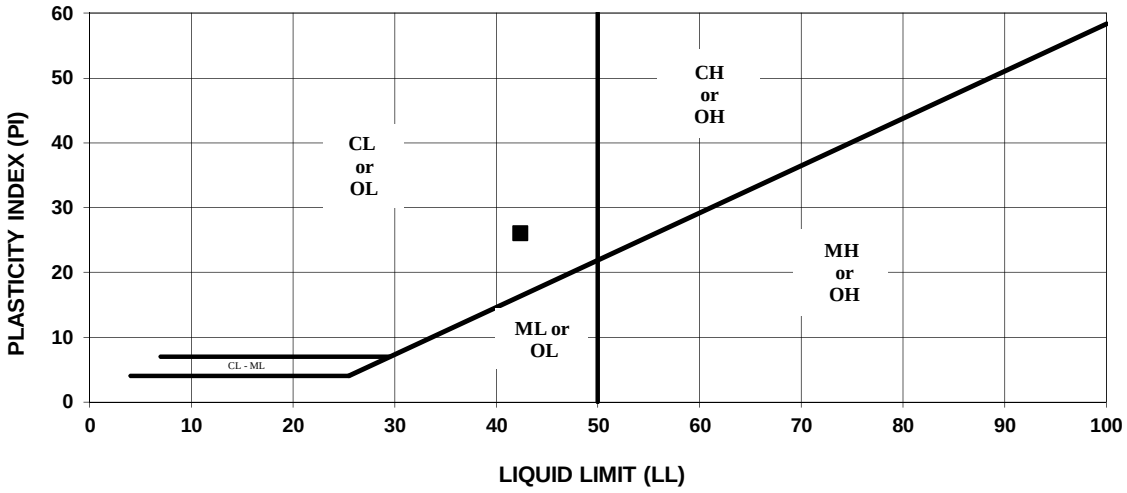
Client: CDM Smith
Project Name: Cambria Emergency Water Supply Project
Project No.: 138760-104133
Boring No.: **B-4**
Sample No.: **S-4** ***Depth:*** **10-11.5'**
Soil Description: Dark Brown, Lean Clay with Sand (CL)

HAI Project No.: CDM-14-002
Tested by: KL/PM
Checked by: JT
Date: 6/10/2014

Test		LL	LL	LL	PL	PL
Tare No.		15	17	22	B1	B7
No. of blows		**33**	**25**	**18**		
Wt. of wet soil + tare	(g)	23.30	25.06	24.93	10.70	10.87
Wt. of dry soil + tare	(g)	19.73	20.90	20.75	9.36	9.50
Wt. of tare	(g)	10.99	11.08	11.24	1.15	1.12
Water content	**(%)**	**40.8**	**42.4**	**44.0**	**16.3**	**16.3**

Liquid Limit	**42**
Plastic Limit	**16**
Plasticity Index	**26**
USCS	**CL**





HUSHMAND ASSOCIATES, INC.
Geotechnical and Earthquake Engineers

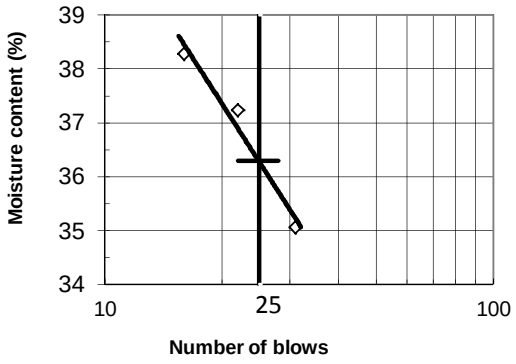
ATTERBERG LIMITS
(ASTM D 4318)

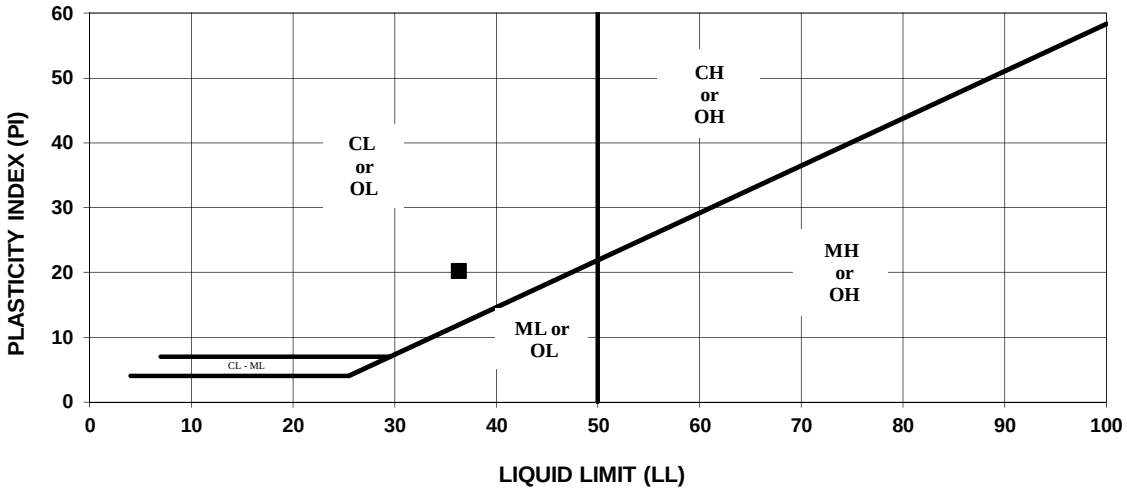
Client: CDM Smith
Project Name: Cambria Emergency Water Supply Project
Project No.: 138760-104133
Boring No.: **B-4**
Sample No.: **S-10** ***Depth:*** **39-40.5'**
Soil Description: Olive Brown, Lean Clay with Sand (CL)

HAI Project No.: CDM-14-002
Tested by: KL/PM
Checked by: JT
Date: 6/10/2014

Test		LL	LL	LL	PL	PL
Tare No.		25	27	29	B5	B2
No. of blows		**31**	**22**	**16**		
Wt. of wet soil + tare	(g)	23.03	24.46	24.49	10.64	10.12
Wt. of dry soil + tare	(g)	19.98	20.90	20.85	9.33	8.87
Wt. of tare	(g)	11.28	11.34	11.34	1.13	1.13
Water content	**(%)**	**35.1**	**37.2**	**38.3**	**16.0**	**16.1**

Liquid Limit	**36**
Plastic Limit	**16**
Plasticity Index	**20**
USCS	**CL**





HUSHMAND ASSOCIATES, INC.
Geotechnical and Earthquake Engineers

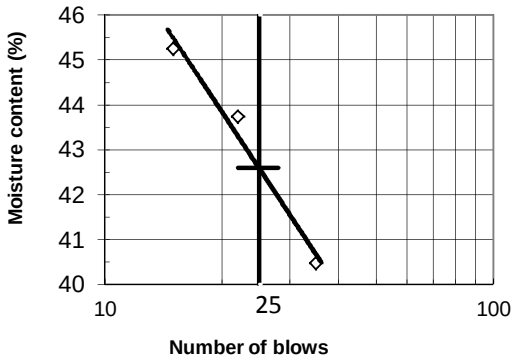
ATTERBERG LIMITS
(ASTM D 4318)

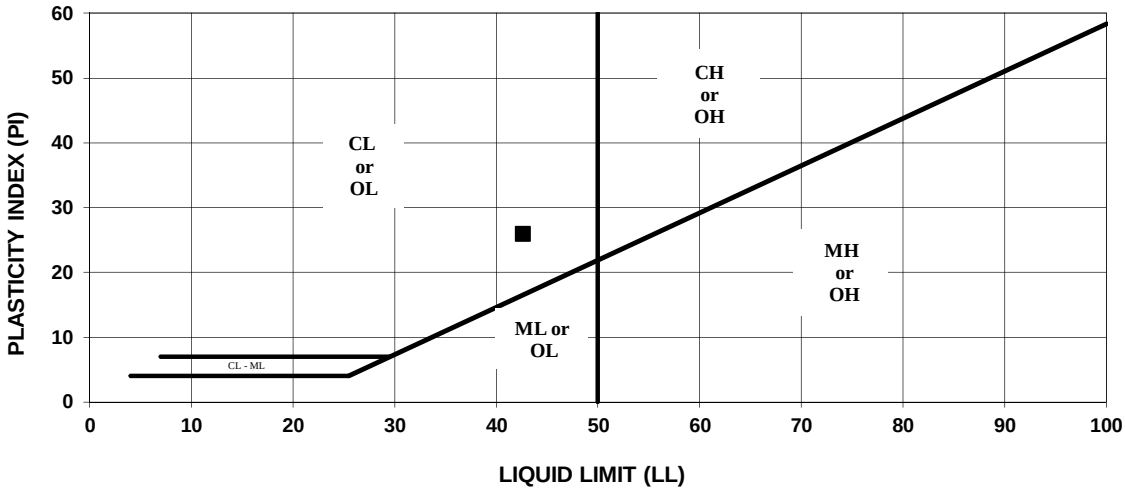
Client: CDM Smith
Project Name: Cambria Emergency Water Supply Project
Project No.: 138760-104133
Boring No.: **B-5**
Sample No.: **Bulk 1** ***Depth:*** **0-5'**
Soil Description: Brown, Lean Clay with Sand (CL)

HAI Project No.: CDM-14-002
Tested by: KL/PM
Checked by: JT
Date: 6/10/2014

Test		LL	LL	LL	PL	PL
Tare No.		5-1	9	14	A2	A5
No. of blows		**35**	**22**	**15**		
Wt. of wet soil + tare	(g)	23.37	23.87	24.17	11.38	10.97
Wt. of dry soil + tare	(g)	19.78	19.96	20.07	9.86	9.51
Wt. of tare	(g)	10.91	11.02	11.01	1.13	1.11
Water content	**(%)**	**40.5**	**43.7**	**45.3**	**17.4**	**17.4**

Liquid Limit	**43**
Plastic Limit	**17**
Plasticity Index	**26**
USCS	**CL**





HUSHMAND ASSOCIATES, INC.
Geotechnical and Earthquake Engineers

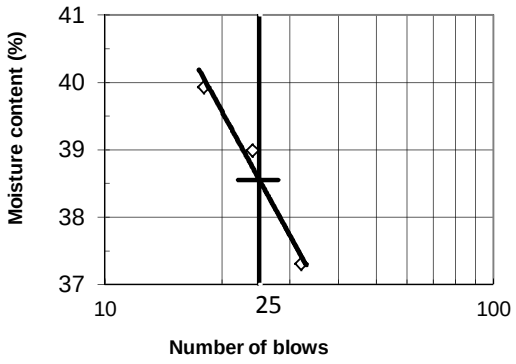
ATTERBERG LIMITS
(ASTM D 4318)

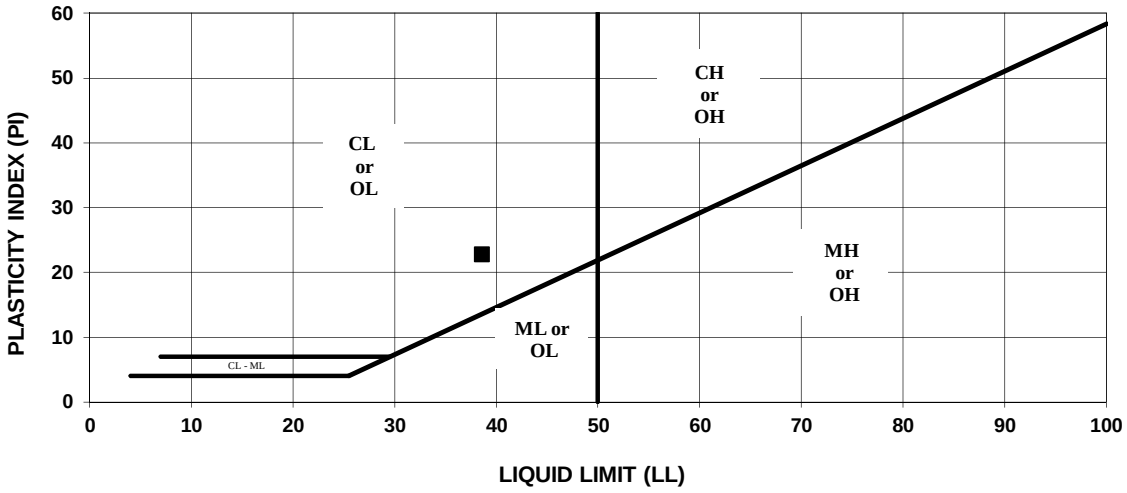
Client: CDM Smith
Project Name: Cambria Emergency Water Supply Project
Project No.: 138760-104133
Boring No.: **B-5**
Sample No.: **S-6** ***Depth:*** **19-20.5'**
Soil Description: Brown, Sandy Lean Clay (CL)

HAI Project No.: CDM-14-002
Tested by: KL/PM
Checked by: JT
Date: 6/10/2014

Test		LL	LL	LL	PL	PL
Tare No.		11	18	29	F3	F1
No. of blows		**32**	**24**	**18**		
Wt. of wet soil + tare	(g)	23.99	24.23	23.91	11.13	11.08
Wt. of dry soil + tare	(g)	20.39	20.46	20.32	9.77	9.72
Wt. of tare	(g)	10.74	10.79	11.33	1.13	1.13
Water content	**(%)**	**37.3**	**39.0**	**39.9**	**15.7**	**15.8**

Liquid Limit	**39**
Plastic Limit	**16**
Plasticity Index	**23**
USCS	**CL**





HUSHMAND ASSOCIATES, INC.
Geotechnical and Earthquake Engineers

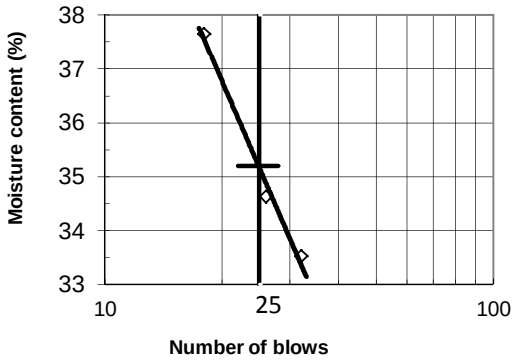
ATTERBERG LIMITS
(ASTM D 4318)

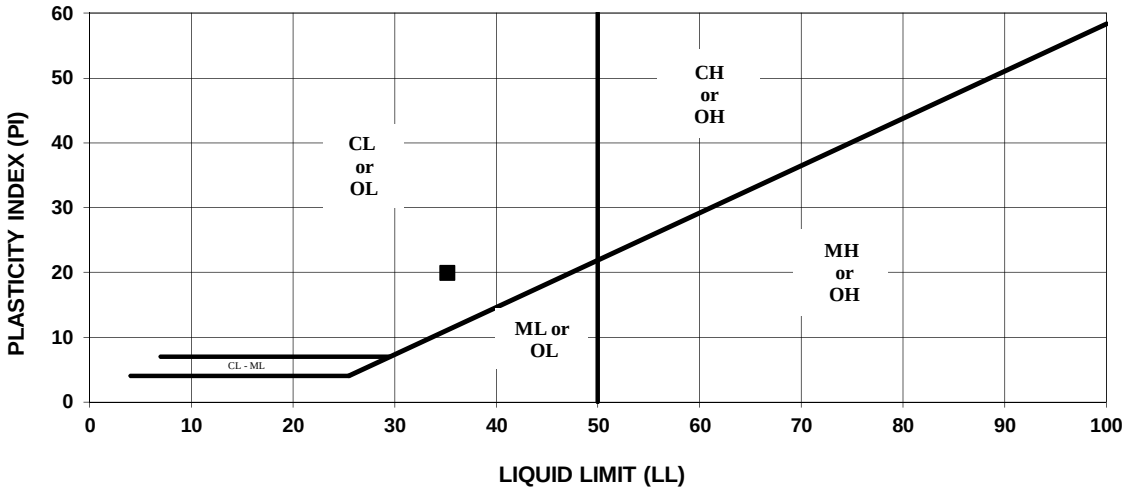
Client: CDM Smith
Project Name: Cambria Emergency Water Supply Project
Project No.: 138760-104133
Boring No.: **B-5**
Sample No.: **S-9** ***Depth:*** **34-35.5'**
Soil Description: Olive, Sandy Lean Clay (CL)

HAI Project No.: CDM-14-002
Tested by: KL/PM
Checked by: JT
Date: 6/10/2014

Test		LL	LL	LL	PL	PL
Tare No.		16	17	21	B3	B6
No. of blows		**32**	**26**	**18**		
Wt. of wet soil + tare	(g)	24.42	24.92	24.63	12.36	11.94
Wt. of dry soil + tare	(g)	21.07	21.36	20.99	10.88	10.51
Wt. of tare	(g)	11.08	11.08	11.32	1.14	1.14
Water content	**(%)**	**33.5**	**34.6**	**37.6**	**15.2**	**15.3**

Liquid Limit	**35**
Plastic Limit	**15**
Plasticity Index	**20**
USCS	**CL**





HUSHMAND ASSOCIATES, INC.
Geotechnical and Earthquake Engineers

CONSOLIDATION TEST
(ASTM D2435)

Client :	CDM Smith	***HAI Project No.:***	CDM-14-002
Project Name:	Cambria Emergency Water Supply Project	***Tested by:***	PM
Project No.:	138760-104133	***Checked by:***	JT
		Date:	6/12/2014

Boring No.: **B-1** ***Sample No.:*** **S-4** ***Depth:*** **10-11.5'**
Soil Description: Brown, Lean Clay with Sand (CL)
Type of Sample: Undisturbed ring

Initial Total Weight (g)	Final Total Weight (g)	Final Dry Weight (g)
148.04	150.10	124.10

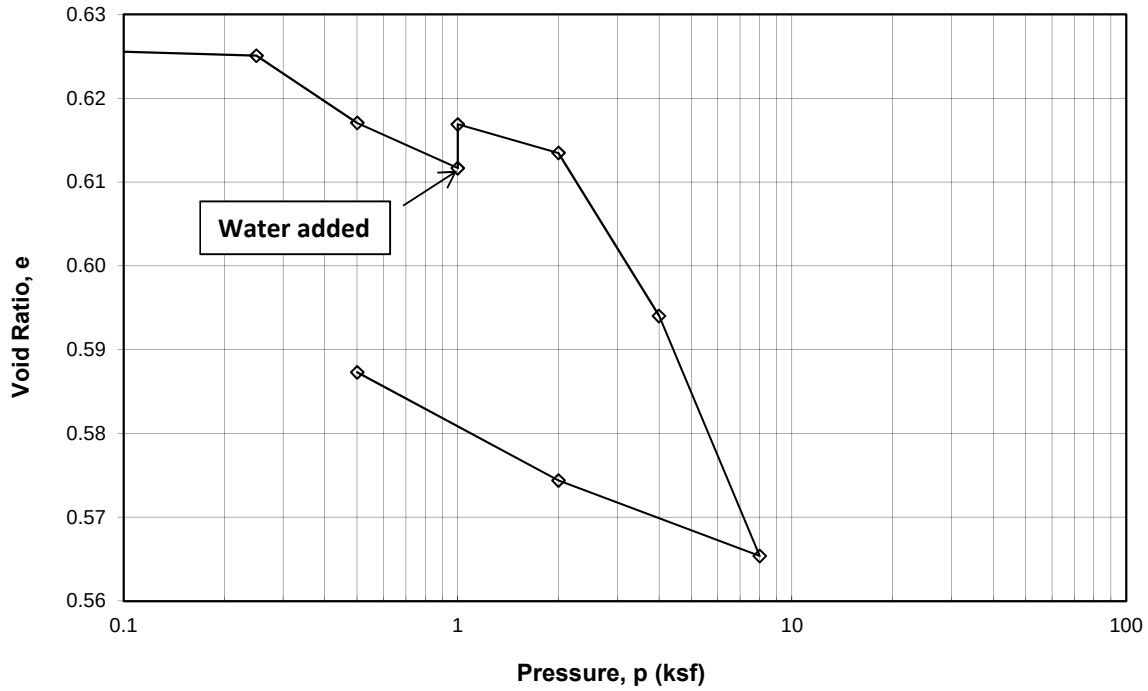
			Initial Conditions	Unload
Height	**H**	**(in)**	0.9953	0.9712
Height of Solids	**Hs**	**(in)**	0.612	0.612
Height of Water	**Hw**	**(in)**	0.319	0.346
Height of Air	**Ha**	**(in)**	0.065	0.013
Dry Density		**(pcf)**	**103.6**	**106.6**
Water Content		**(%)**	**19.3**	**21.0**
Saturation		**(%)**	**83.1**	**96.3**

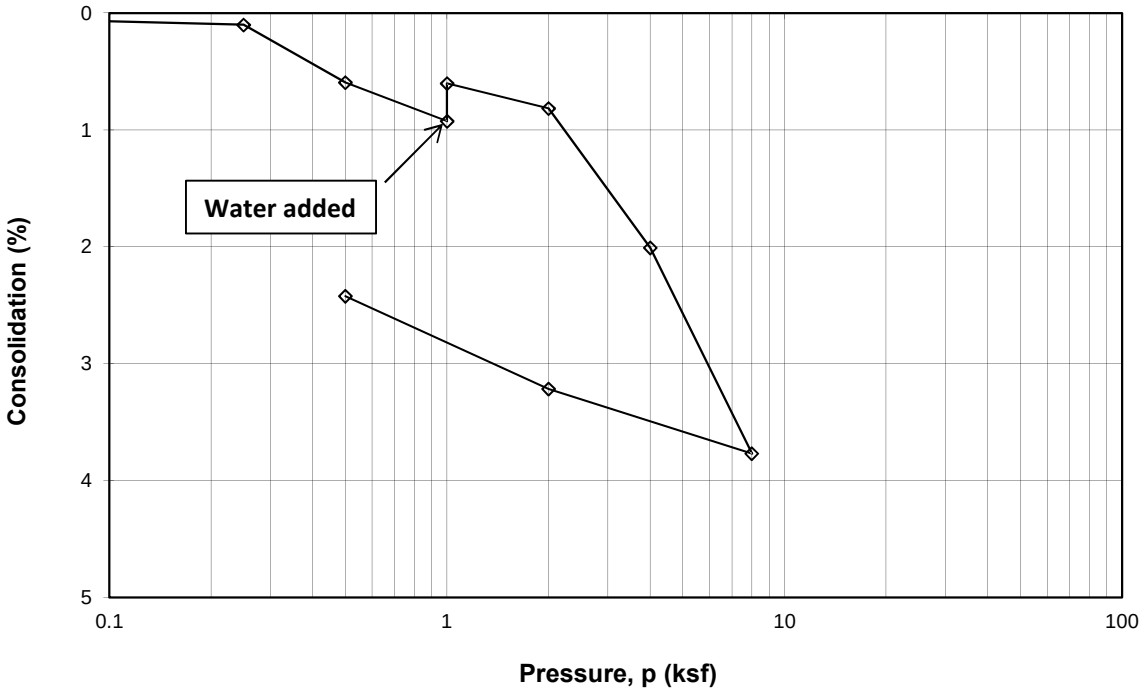
Load (ksf)	δH (in)	H (in)	Voids (in)	e	Consol. (%)	t_{50} (sec)	a_v (ksf)	M_v (ksf)	
0.01	-------	0.9953	0.383	0.627	0				
0.25	0.0010	0.9943	0.382	0.625	0.1		6.8E-03	4.2E-03	
0.5	0.0059	0.9894	0.378	0.617	0.6		3.2E-02	2.0E-02	
1	0.0092	0.9861	0.374	0.612	0.9		1.1E-02	6.7E-03	
1	0.0060	0.9893	0.377	0.617	0.6	**WATER ADDED**			
2	0.0081	0.9872	0.375	0.613	0.8				
4	0.0200	0.9753	0.363	0.594	2.0		9.7E-03	6.1E-03	
8	0.0375	0.9578	0.346	0.565	3.8		7.2E-03	4.6E-03	
2	0.0320	0.9633	0.351	0.574	3.2	**UNLOAD**			
0.5	0.0241	0.9712	0.359	0.587	2.4				

HUSHMAND ASSOCIATES, INC.
Geotechnical and Earthquake Engineers

CONSOLIDATION TEST
(ASTM D2435)

Client: CDM Smith
Project Name: Cambria Emergency Water Supply Project
Project No.: 138760-104133
Boring No.: **B-1** ***Sample No.:*** **S-4** ***Depth:*** **10-11.5'**
Soil Description: Brown, Lean Clay with Sand (CL)
Type of Sample: Undisturbed ring





HUSHMAND ASSOCIATES, INC.
Geotechnical and Earthquake Engineers

CONSOLIDATION TEST
(ASTM D2435)

Client :	CDM Smith	***HAI Project No.:***	CDM-14-002
Project Name:	Cambria Emergency Water Supply Project	***Tested by:***	PM
Project No.:	138760-104133	***Checked by:***	JT
		Date:	6/12/2014

Boring No.: **B-1** ***Sample No.:*** **S-6** ***Depth:*** **19-20.5'**
Soil Description: Brown, Lean Clay with Sand (CL)
Type of Sample: Undisturbed ring

Initial Total Weight (g)	Final Total Weight (g)	Final Dry Weight (g)
149.25	142.86	118.32

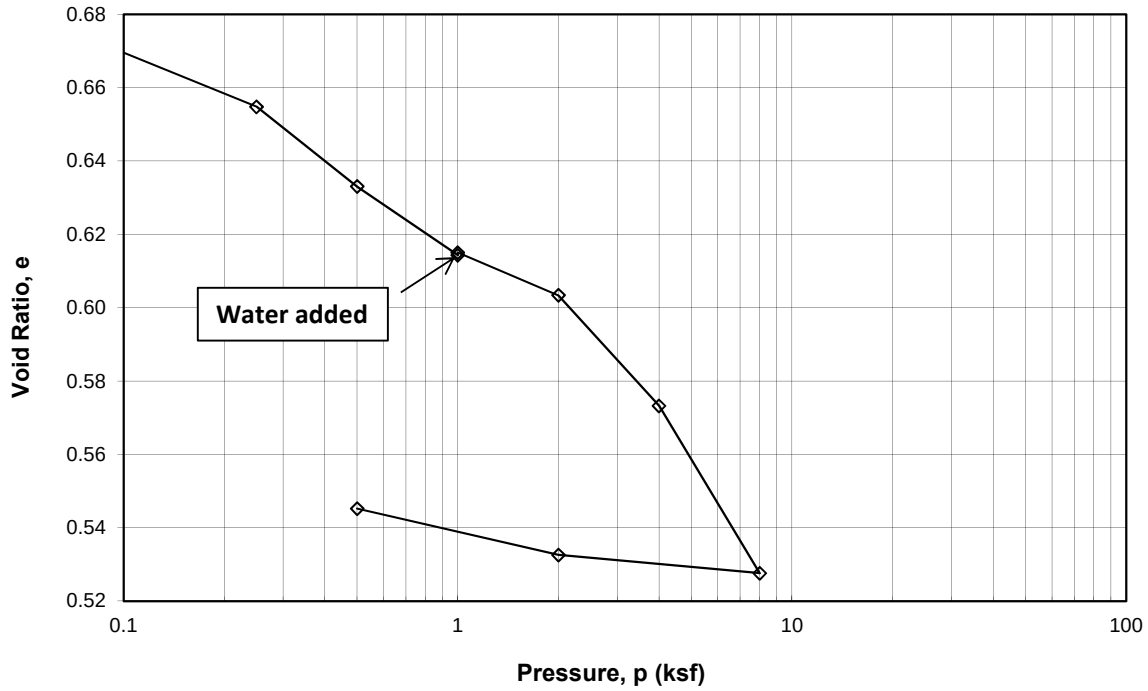
			Initial Conditions	Unload
Height	**H**	**(in)**	0.9955	0.9014
Height of Solids	**Hs**	**(in)**	0.583	0.583
Height of Water	**Hw**	**(in)**	0.412	0.327
Height of Air	**Ha**	**(in)**	0.000	-0.009
Dry Density		**(pcf)**	**98.7**	**109.5**
Water Content		**(%)**	**26.1**	**20.7**
Saturation		**(%)**	**99.9**	**102.7**

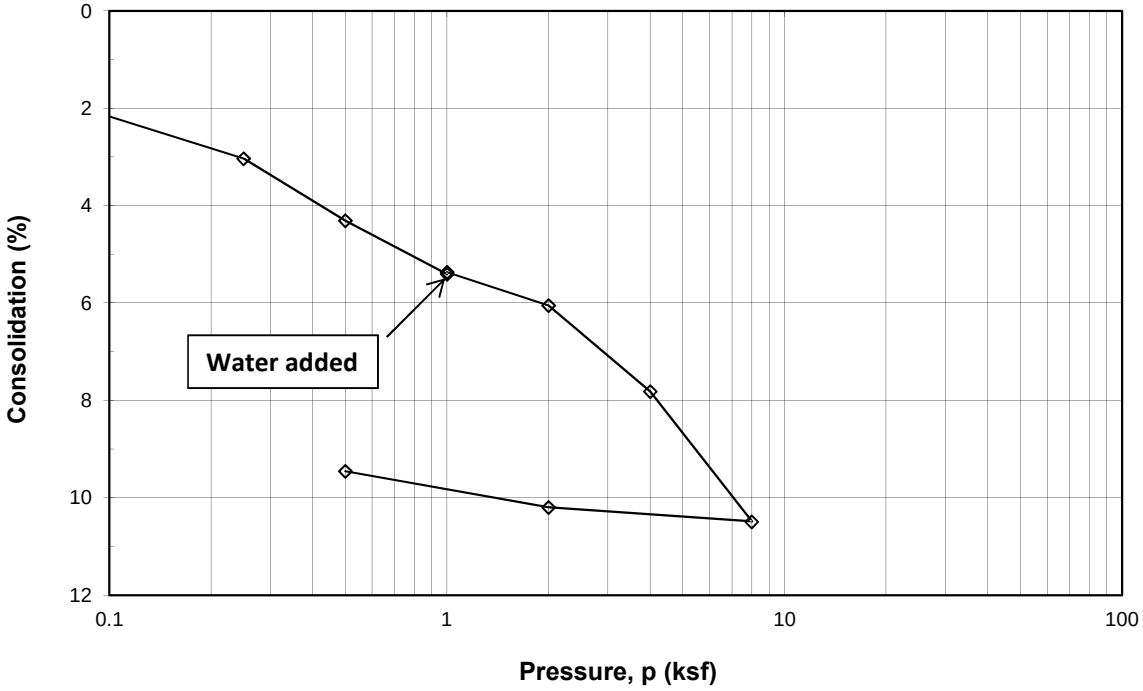
Load (ksf)	δH (in)	H (in)	Voids (in)	e	Consol. (%)	t_{50} (sec)	a_v (ksf)	M_v (ksf)	
0.01	-------	0.9955	0.412	0.707	0				
0.25	0.0302	0.9653	0.382	0.655	3.0		2.2E-01	1.3E-01	
0.5	0.0429	0.9526	0.369	0.633	4.3		8.7E-02	5.3E-02	
1	0.0538	0.9417	0.358	0.614	5.4		3.7E-02	2.3E-02	
1	0.0534	0.9421	0.359	0.615	5.4	**WATER ADDED**			
2	0.0602	0.9353	0.352	0.603	6.0				
4	0.0778	0.9177	0.334	0.573	7.8		1.5E-02	9.6E-03	
8	0.1044	0.8911	0.308	0.528	10.5		1.1E-02	7.5E-03	
2	0.1015	0.8940	0.311	0.533	10.2	**UNLOAD**			
0.5	0.0941	0.9014	0.318	0.545	9.5				

HUSHMAND ASSOCIATES, INC.
Geotechnical and Earthquake Engineers

CONSOLIDATION TEST
(ASTM D2435)

Client: CDM Smith
Project Name: Cambria Emergency Water Supply Project
Project No.: 138760-104133
Boring No.: **B-1** ***Sample No.:*** **S-6** ***Depth:*** **19-20.5'**
Soil Description: Brown, Lean Clay with Sand (CL)
Type of Sample: Undisturbed ring





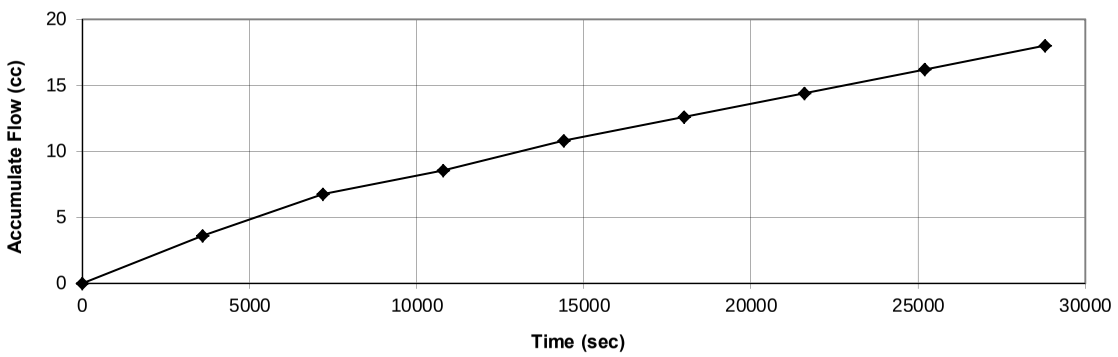
HUSHMAND ASSOCIATES, INC.
Geotechnical and Earthquake Engineers

HYDRAULIC CONDUCTIVITY
(ASTM D 5084)

Client: CDM Smith
Project Name: Cambria Emergency Water Supply Project
Project No.: 138760-104133
Boring No.: **B-4**
Sample No: **S-5** ***Depth:*** **14-15.5'**
Soil Description: Brown, Clayey Sand with Gravel (SC)
Sample Type: Undisturbed ring

HAI Project No.: CDM-14-002
Tested by: KL/PM
Checked by: JT
Date: 6/9/2014

Date and Time	t (sec)		Vol. Change		ΔV (cm^3)			Cell pressure (σ_c) psi	Bottom pressure (σ_l) psi	Top pressure (σ_u) psi	Effective pressure (psi)	Diff. (σ_l-σ_u) psi	H (cm)	K (cm/sec)
	Partial	Total	Bottom	Top	Bottom	Top	Average							
6/5/2014 8:47	10800	0	1.9	22.6	9.5	9.5	9.45	94.6	91.1	88.1	5	3	211.02	**6.41E-07**
6/5/2014 13:47	28800	18000	4.0	20.5										



SAMPLE DATA			
	Initial	**Final**	
Dry Density:	106.4	106.3	pcf
Moisture Content:	13.0	21.2	%
Saturation:	60.0	97.8	%

TEST TEMP (ºC): 22.3
Correction factor for Temp Tº: 0.9466
HYDRAULIC CONDUCTIVITY (cm/sec): **6.41E-07**

Corrected Hydraulic Conductivity for Tº: **6.07E-07**

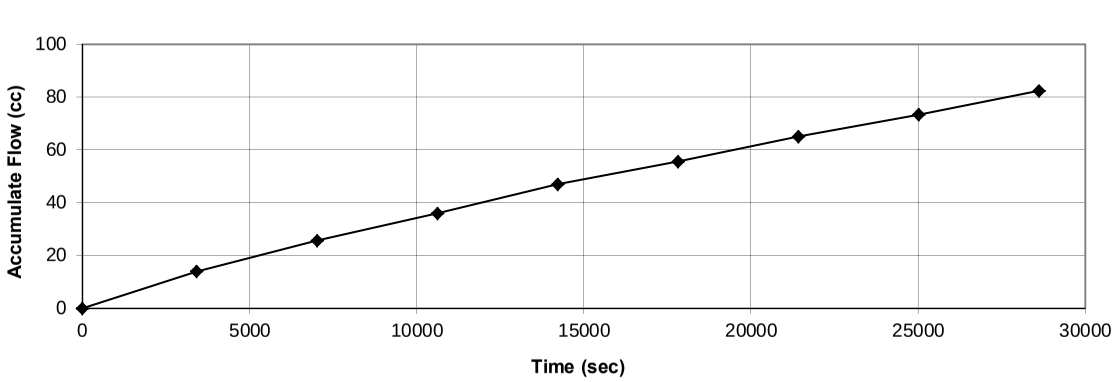
HUSHMAND ASSOCIATES, INC.
Geotechnical and Earthquake Engineers

HYDRAULIC CONDUCTIVITY
(ASTM D 5084)

Client: CDM Smith
Project Name: Cambria Emergency Water Supply Project
Project No.: **138760-104133**
Boring No.: **B-5**
Sample No: **S-3** ***Depth:*** **7.5-9'**
Soil Description: Olive, Lean Clay with Sand (CL)
Sample Type: Undisturbed ring

HAI Project No.: CDM-14-002
Tested by: KL/PM
Checked by: JT
Date: 6/9/2014

Date and Time	t (sec)		Vol. Change		ΔV (cm^3)			Cell pressure (σ_c) psi	Bottom pressure (σ_l) psi	Top pressure (σ_u) psi	Effective pressure (psi)	Diff. (σ_l-σ_u) psi	H (cm)	K (cm/sec)
	Partial	Total	Bottom	Top	Bottom	Top	Average							
6/5/2014 8:47	10620	0	8.2	16.8	46.8	45.9	46.35	95.0	91.5	88.5	5	3	211.02	**3.14E-06**
6/5/2014 13:47	28620	18000	18.6	6.6										



SAMPLE DATA			
	Initial	**Final**	
Dry Density:	98.1	98.0	pcf
Moisture Content:	15.3	26.0	%
Saturation:	57.4	97.5	%

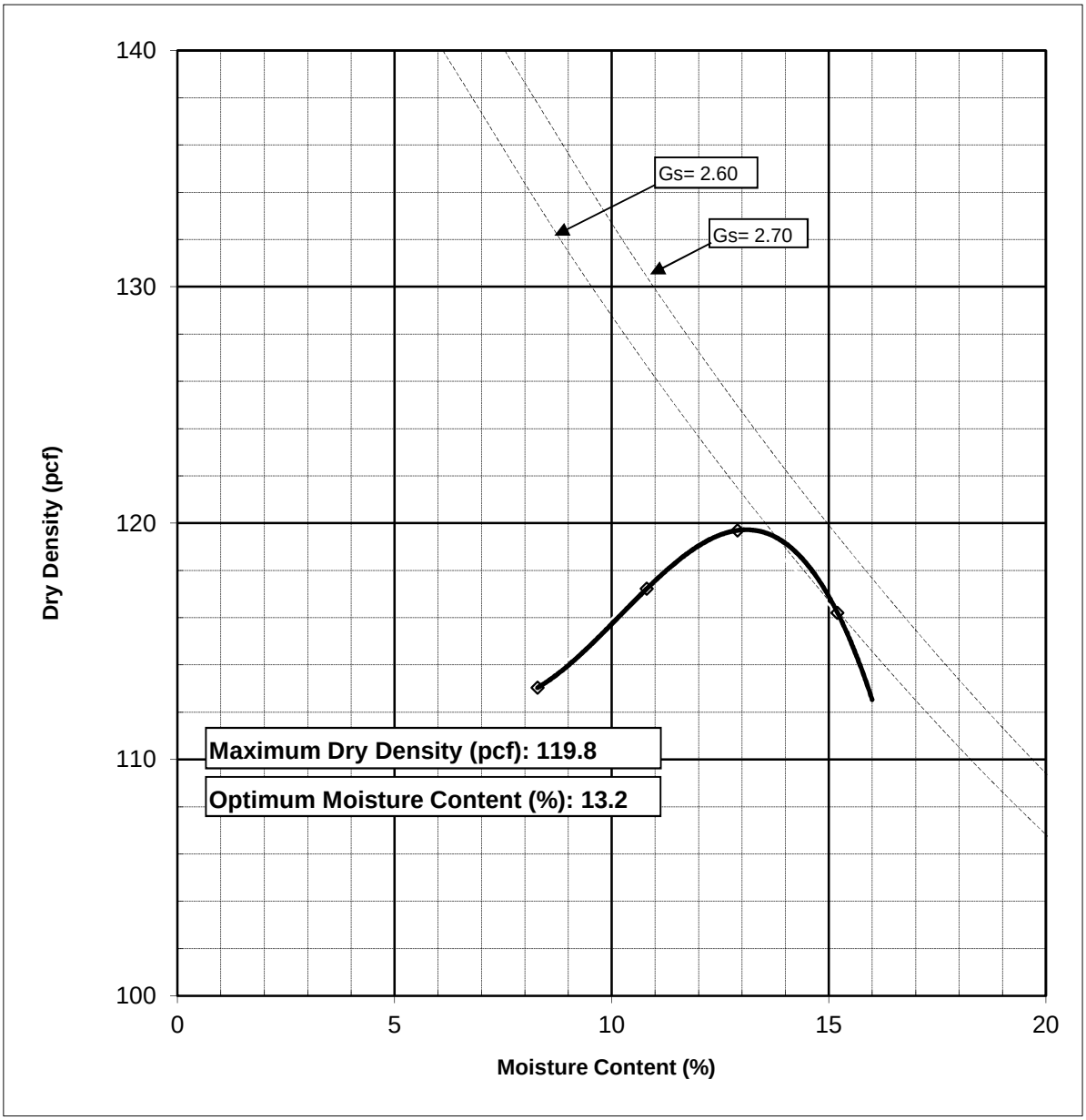
TEST TEMP (ºC): 22.3
Correction factor for Temp Tº: 0.9466
HYDRAULIC CONDUCTIVITY (cm/sec): **3.14E-06**

Corrected Hydraulic Conductivity for Tº: **2.98E-06**

HUSHMAND ASSOCIATES, INC.
Geotechnical and Earthquake Engineers

COMPACTION CURVE
(ASTM D1557)

Client :	CDM Smith	***HAI Project No.:***	CDM-14-002
Project Name:	Cambria Emergency Water Supply Project	***Tested by:***	BS/PM
Project No.:	138760-104133	***Checked by:***	JT
Boring No.:	**B-1**	***Date:***	6/5/2014
Sample No.:	**Bulk 1** ***Depth:*** **0 - 5'**	***Mold size:***	4 in
Soil Description:	Brown, Lean Clay with Sand (CL)	***Procedure:***	A
		% Ret on # 4:	3.4



HUSHMAND ASSOCIATES, INC.
Geotechnical and Earthquake Engineers

COMPACTION CURVE
(ASTM D1557)

Client :	CDM Smith	***HAI Project No.:***	CDM-14-002
Project Name:	Cambria Emergency Water Supply Project	***Tested by:***	BS/PM
Project No.:	138760-104133	***Checked by:***	JT
Boring No.:	**B-4**	***Date:***	6/5/2014
Sample No.:	**Bulk 1** ***Depth:*** **0 - 5'**	***Mold size:***	4 in
Soil Description:	Brown, Clayey Sand (SC)	***Procedure:***	A
		% Ret on # 4:	8.3

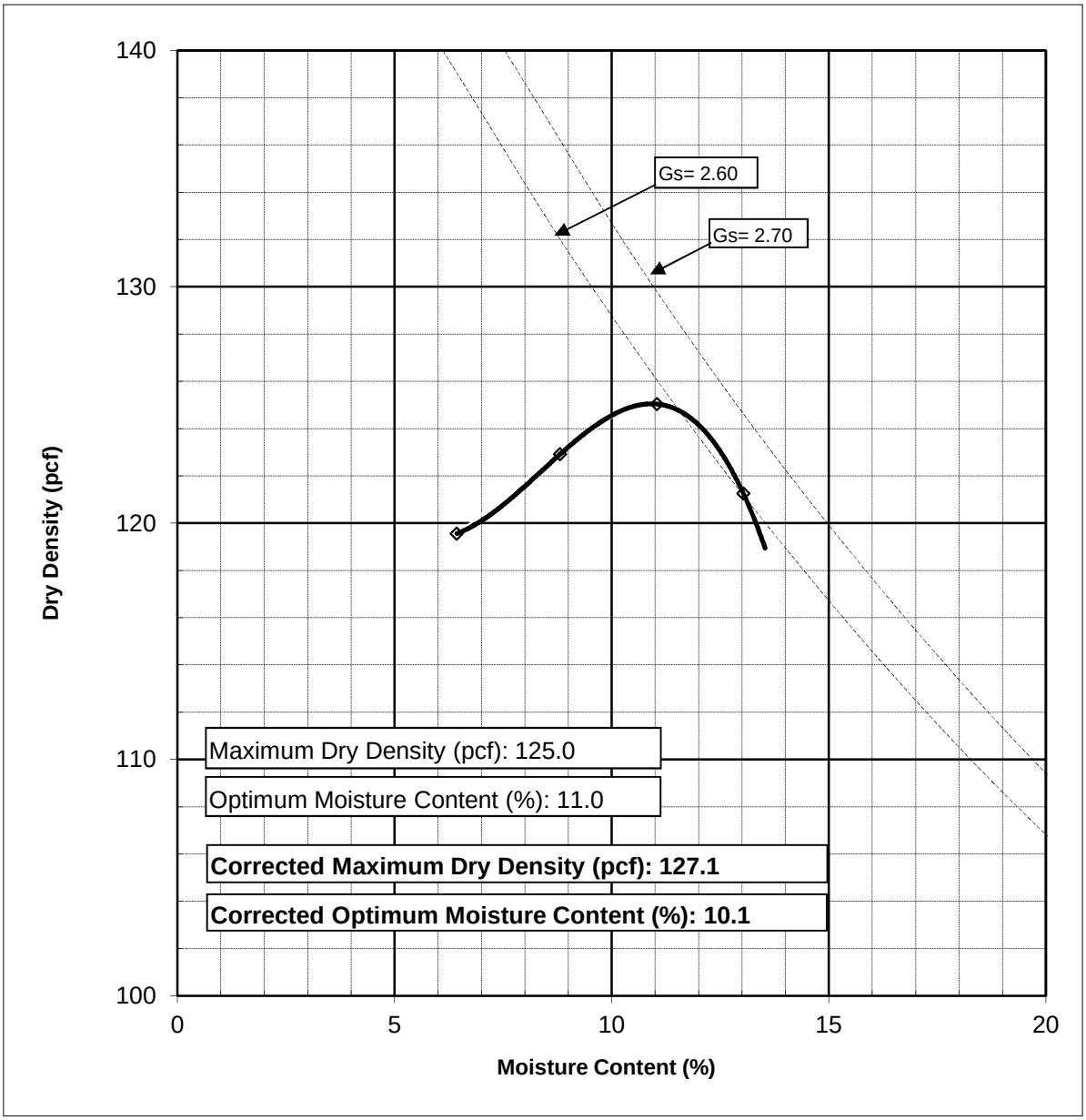


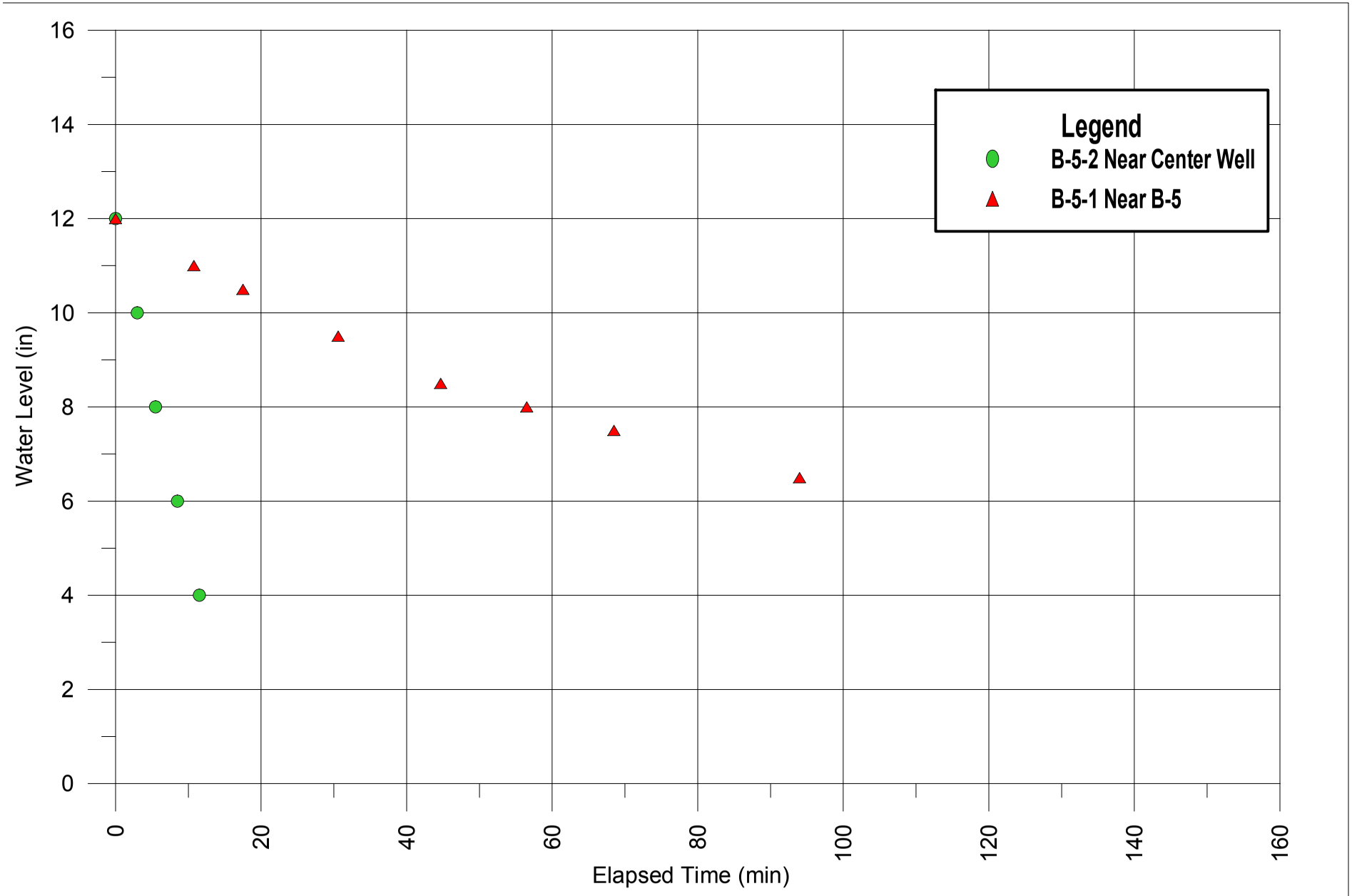
Table 1 - Laboratory Tests on Soil Samples

Hushmand Associates, Inc.
CEWSP
Your #CDM-14-002, HDR|Schiff #14-0386LAB
4-Jun-14

Sample ID			B1 0-5' ML	B3 0-5' CL	B6 0-5' ML
Resistivity		**Units**			
as-received		ohm-cm	38,000	3,600	22,800
minimum		ohm-cm	3,180	2,800	1,680
pH			6.9	7.1	6.8
Electrical Conductivity		mS/cm	0.09	0.08	0.25
Chemical Analyses					
Cations					
calcium	Ca^{2+}	mg/kg	35	45	75
magnesium	Mg^{2+}	mg/kg	15	13	19
sodium	Na^{1+}	mg/kg	48	24	164
potassium	K^{1+}	mg/kg	9.4	11	23
Anions					
carbonate	CO_3^{2-}	mg/kg	ND	ND	ND
bicarbonate	HCO_3^{1-}	mg/kg	223	174	461
fluoride	F^{1-}	mg/kg	2.7	2.8	ND
chloride	Cl^{1-}	mg/kg	16	6.2	85
sulfate	SO_4^{2-}	mg/kg	18	18	85
phosphate	PO_4^{3-}	mg/kg	ND	11	ND
Other Tests					
ammonium	NH_4^{1+}	mg/kg	ND	ND	ND
nitrate	NO_3^{1-}	mg/kg	ND	9.9	ND
sulfide	S^{2-}	qual	na	na	na
Redox		mV	na	na	na

Minimum resistivity per CTM 643, Chlorides per CTM 422, Sulfates per CTM 417
Electrical conductivity in millisiemens/cm and chemical analysis were made on a 1:5 soil-to-water extract.
mg/kg = milligrams per kilogram (parts per million) of dry soil.
Redox = oxidation-reduction potential in millivolts
ND = not detected
na = not analyzed

Double Ring Infiltrometer Test Results

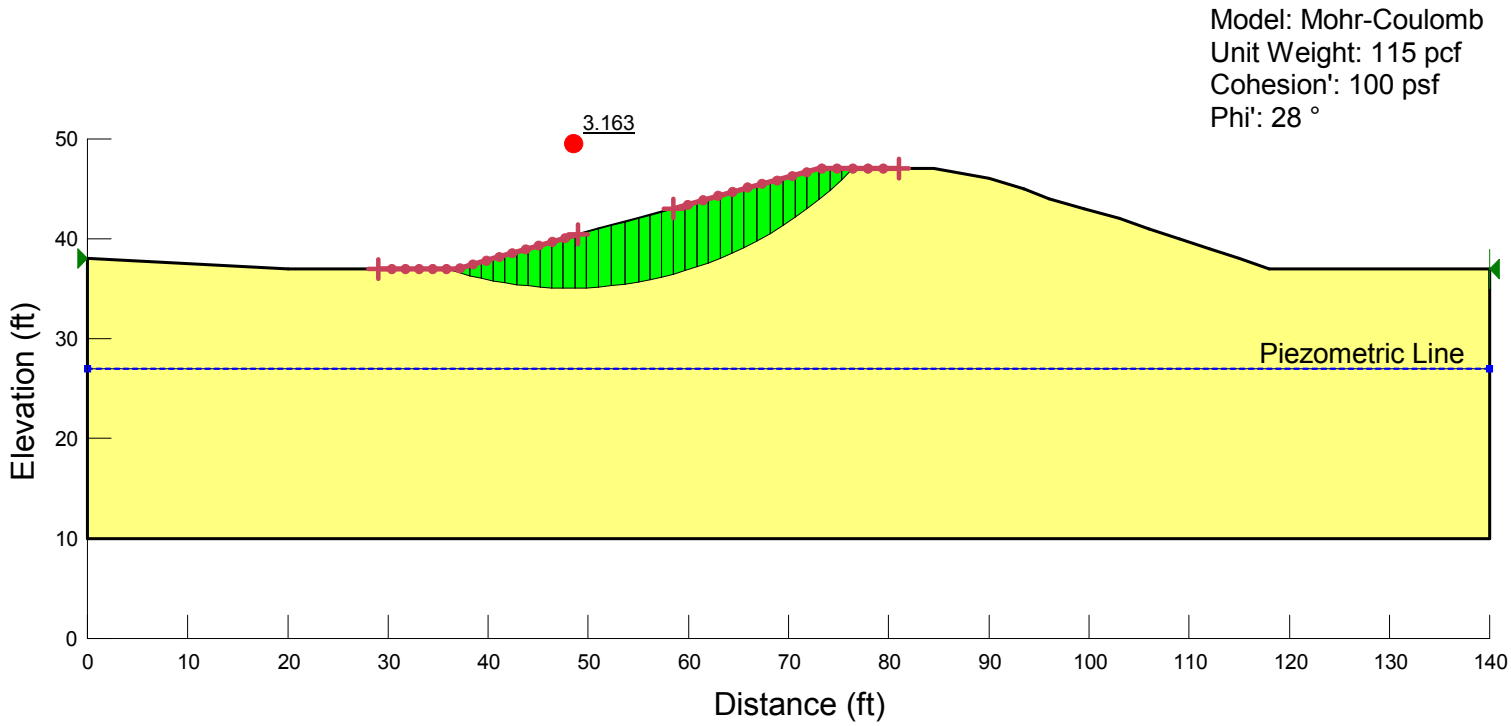


Double Ring Infiltrometer Test at Van Gordon Reservoir
Cambria Emergency Water Supply Project
Cambria Community Services District
Cambria, CA
138760-104133

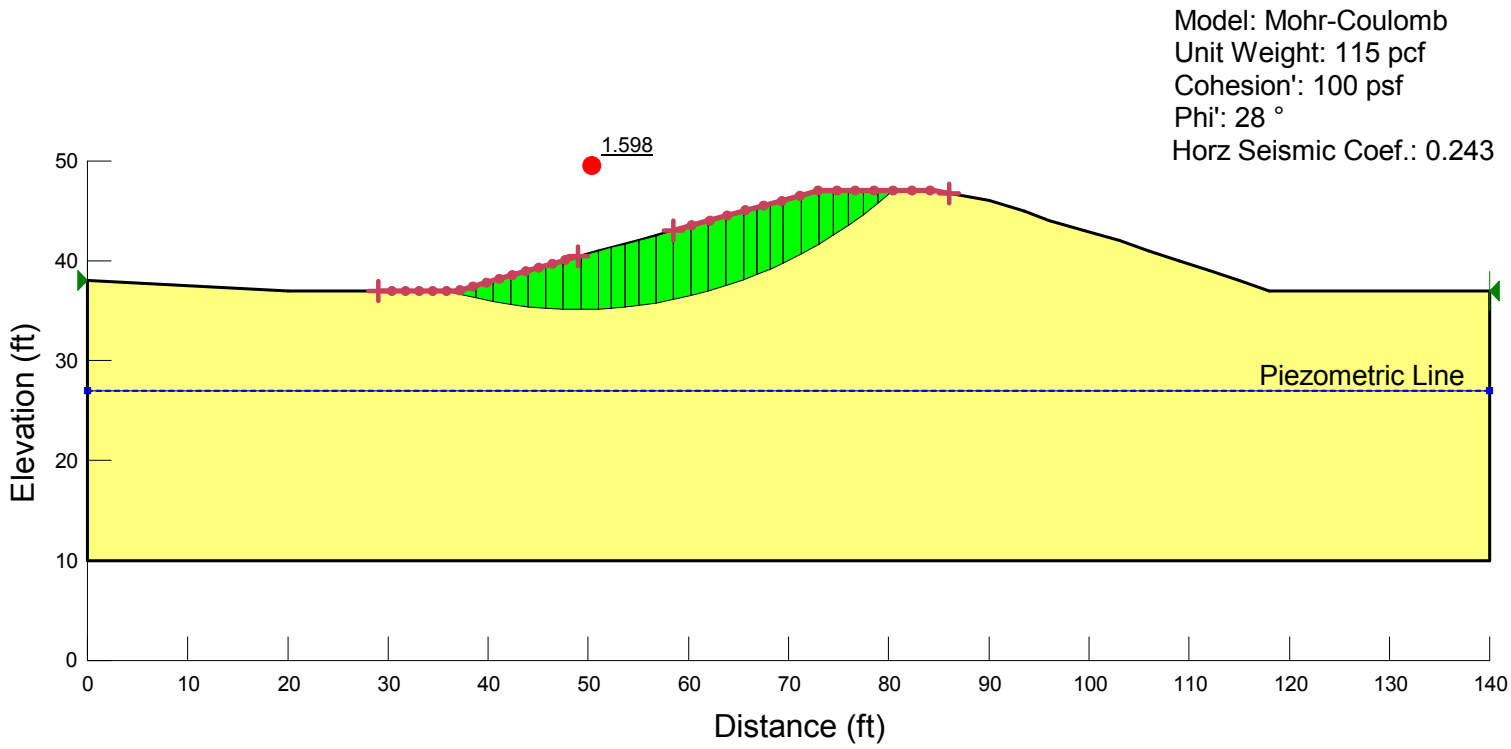
Appendix C

Slope Stability Analysis

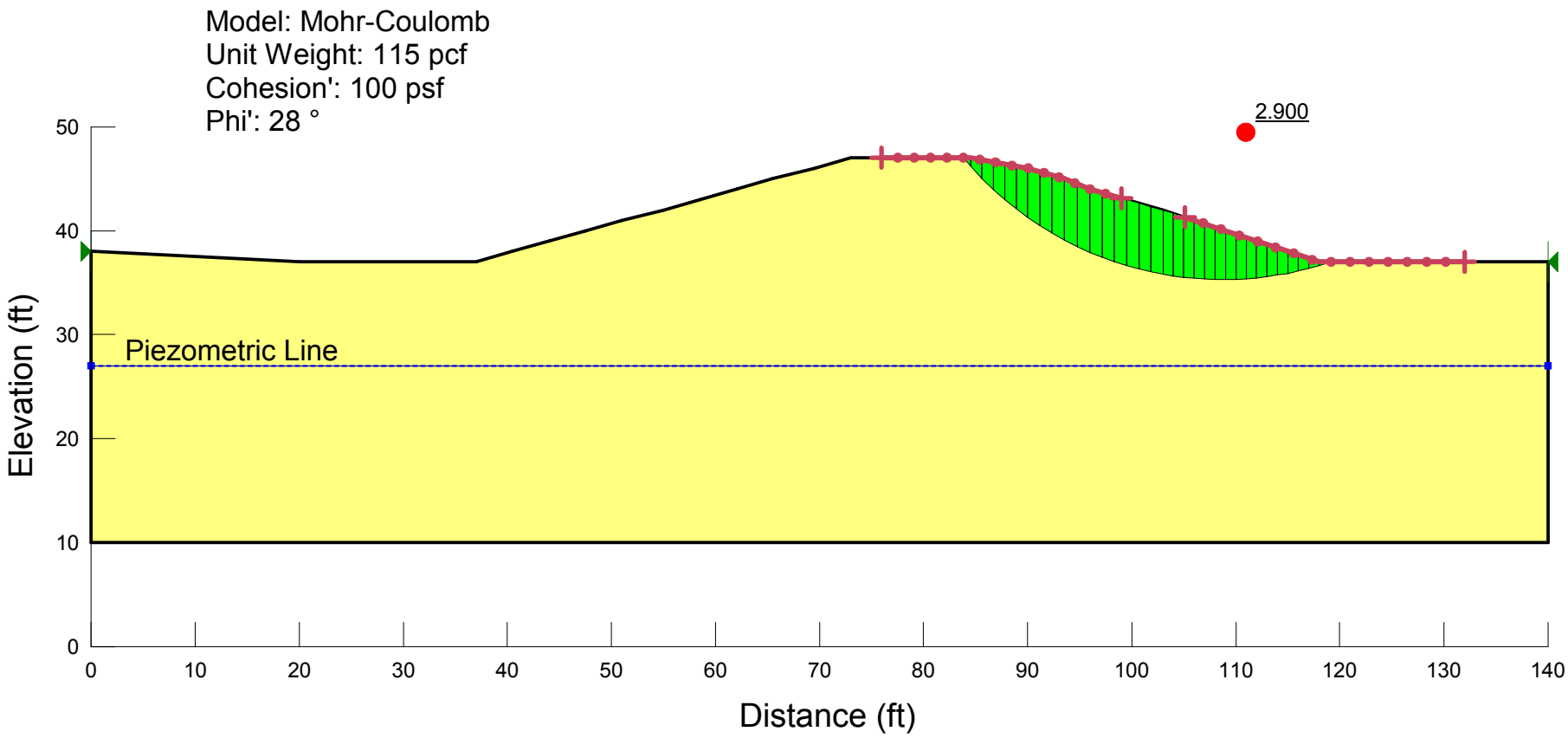
Evaporation Pond Slope Stability (southern berm, north-facing slope)



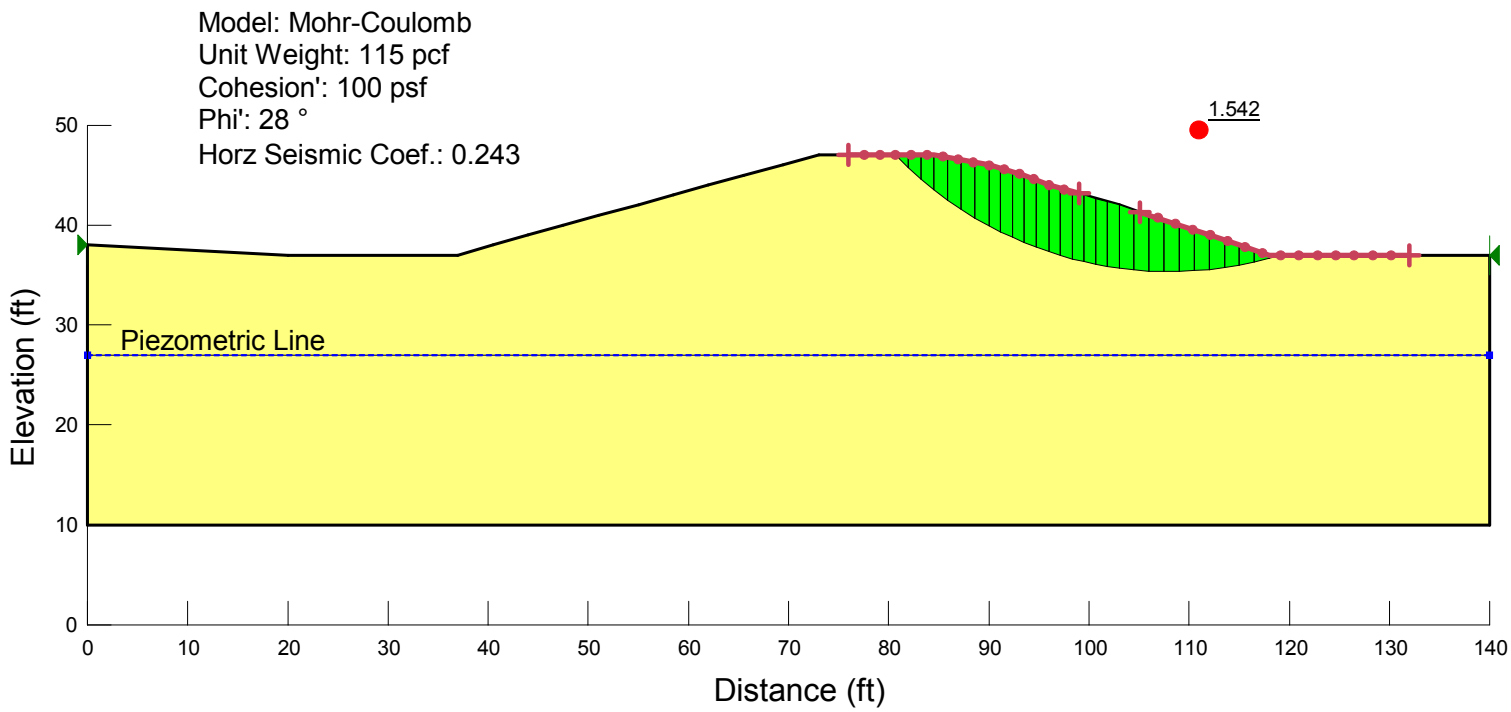
Evaporation Pond Slope Stability with Seismic Loading (southern berm, north-facing slope)



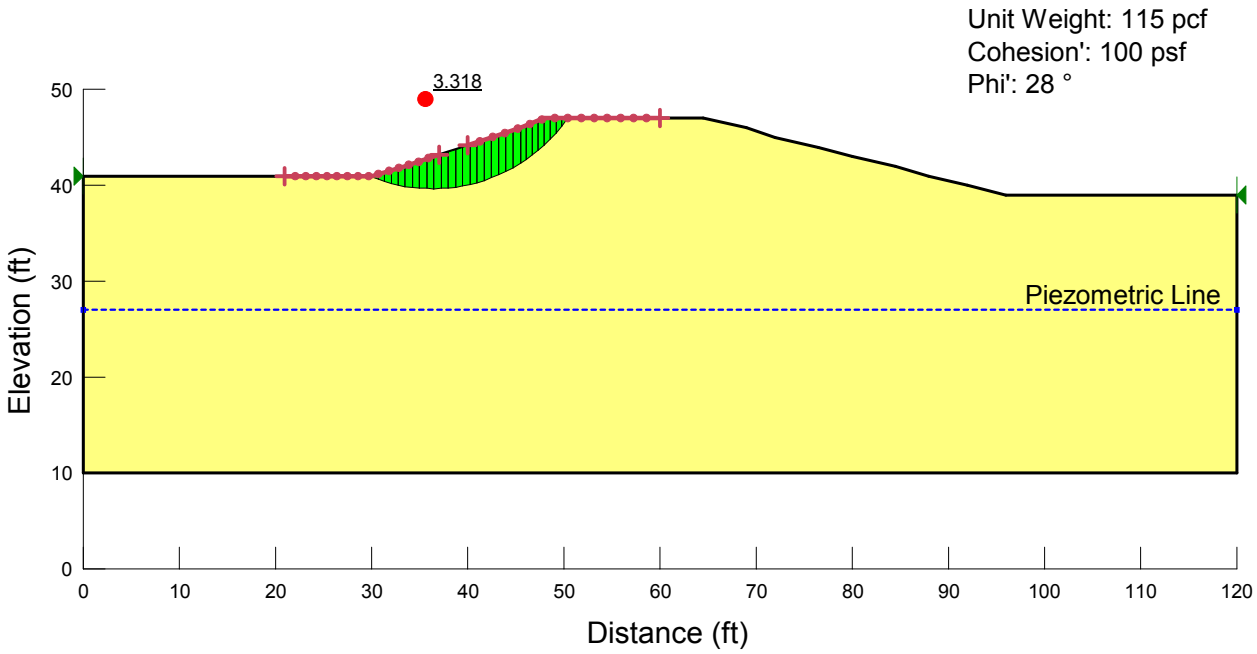
Evaporation Pond Slope Stability (southern berm, south-facing slope)



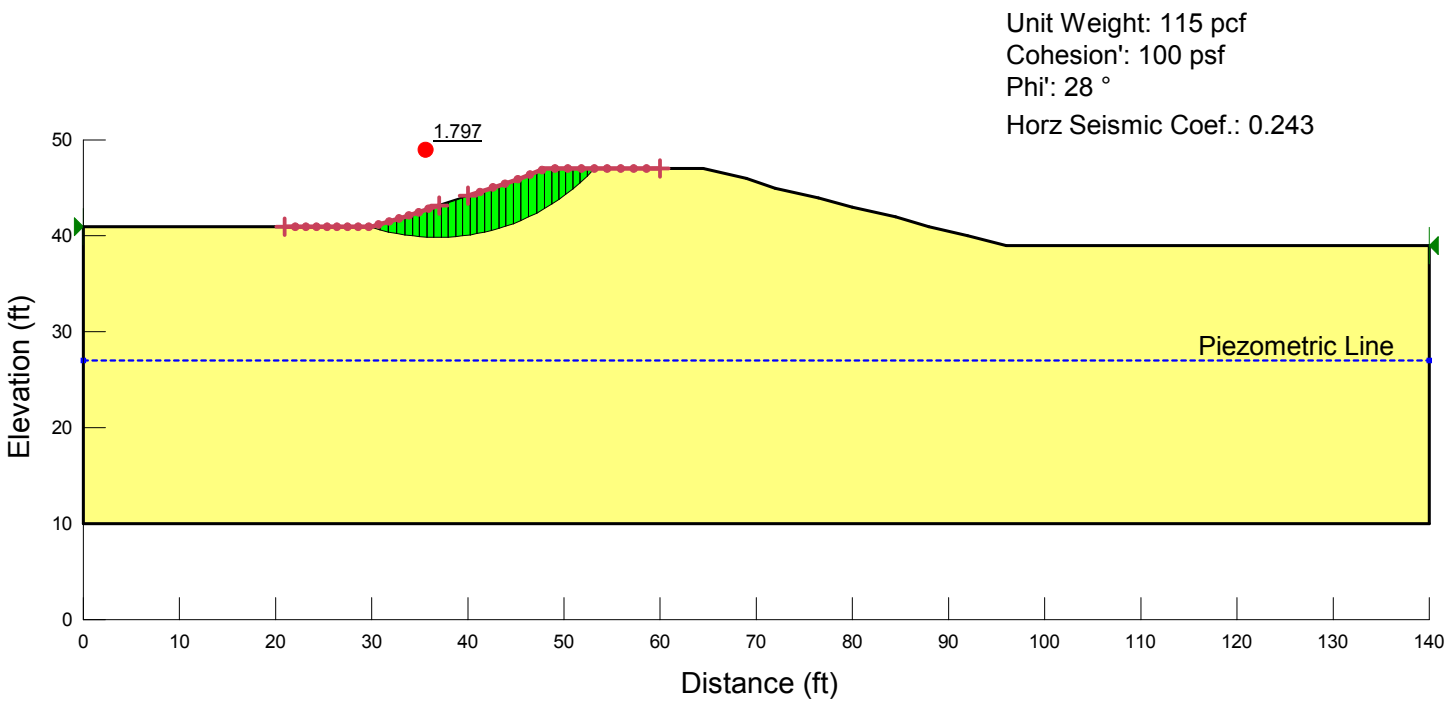
Evaporation Pond Slope Stability with Seismic Loading (southern berm, south-facing slope)



Evaporation Pond Slope Stability (western berm, west facing slope)



Evaporation Pond Slope Stability with Seismic Loading (western berm, west facing slope)



Appendix D

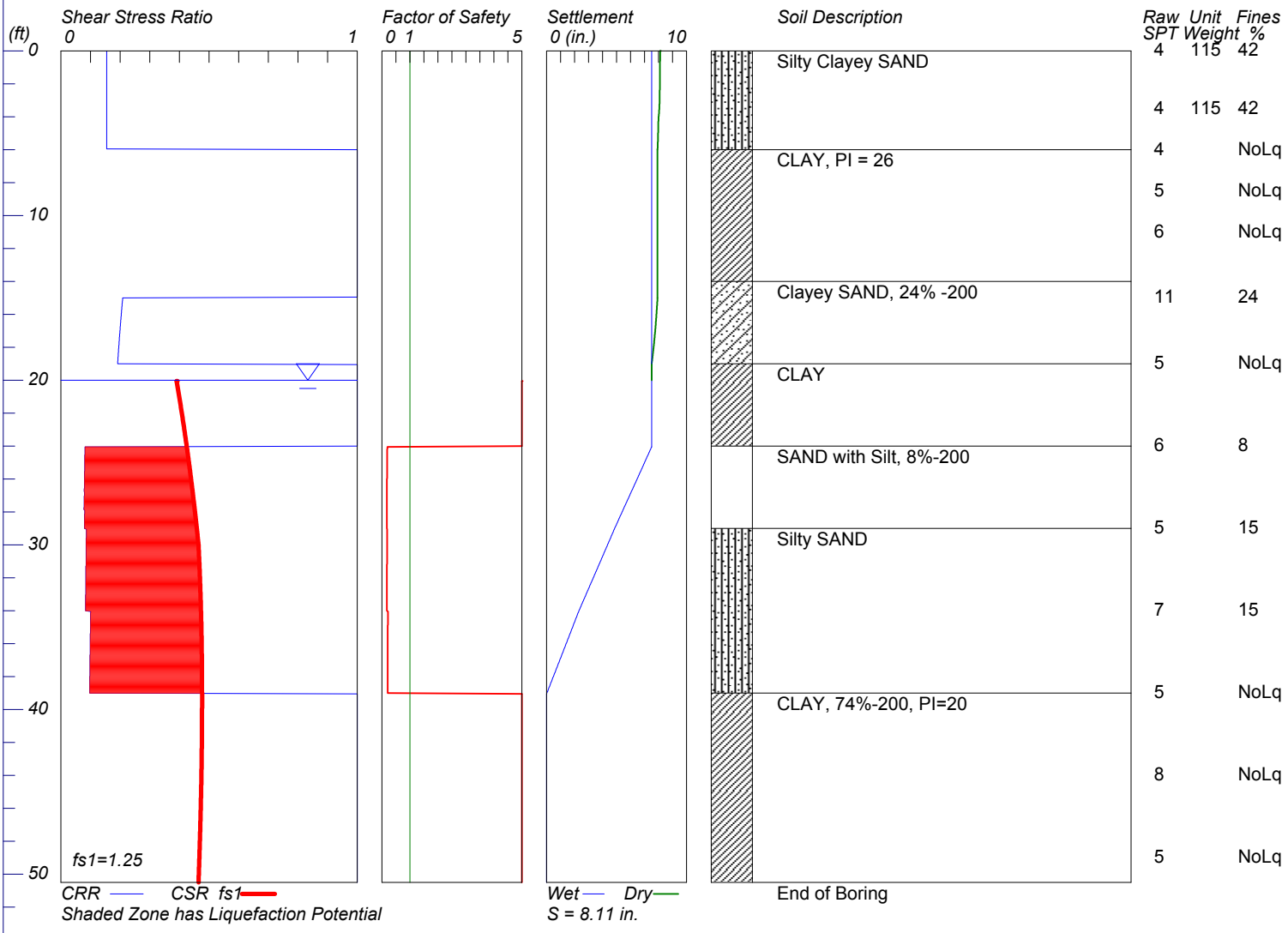
Liquefaction Analysis

LIQUEFACTION ANALYSIS

Cambria Emergency Water Supply

Hole No.=B-4 Water Depth=20 ft

Magnitude=7.3
Acceleration=0.63g



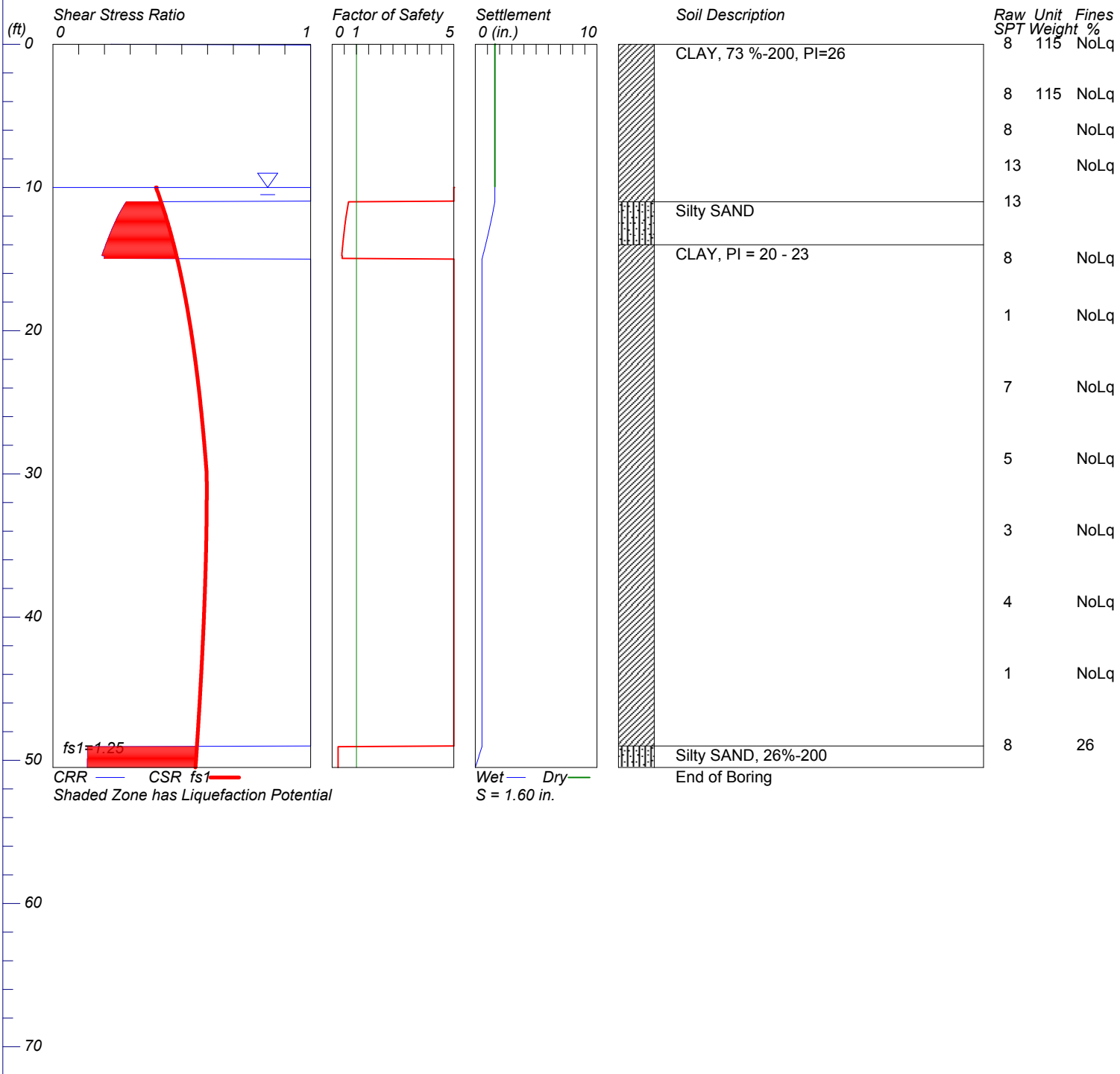
Raw SPT	Unit Weight	Fines %
4	115	42
4	115	42
4		NoLq
5		NoLq
6		NoLq
11		24
5		NoLq
6		8
5		15
7		15
5		NoLq
8		NoLq
5		NoLq

LIQUEFACTION ANALYSIS

Cambria Emergency Water Supply

Hole No.=B-5 Water Depth=10 ft

Magnitude=7.3
Acceleration=0.63g



Raw SPT	Unit Weight	Fines %
8	115	NoLq
8	115	NoLq
8		NoLq
13		NoLq
13		
8		NoLq
1		NoLq
7		NoLq
5		NoLq
3		NoLq
4		NoLq
1		NoLq
8		26

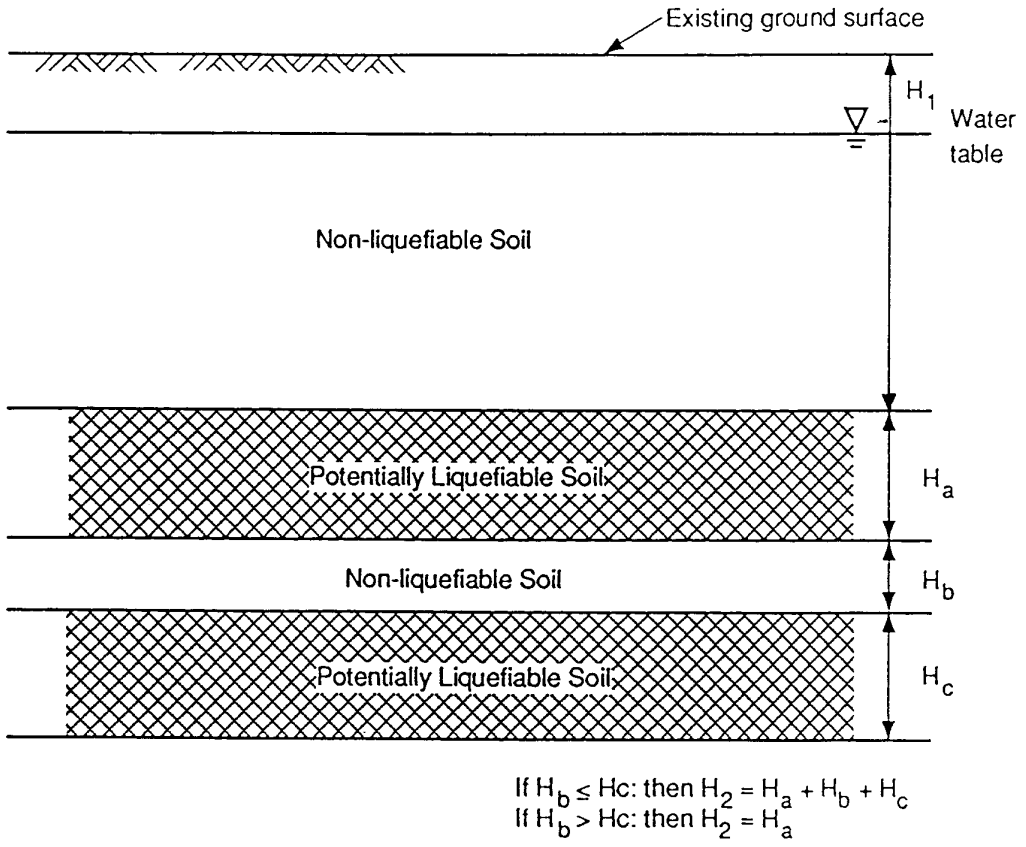


Figure 7.12. Schematic Diagram for Determination of H_1 and H_2 Used in Figure 7.13 (After Ishihara, 1985)

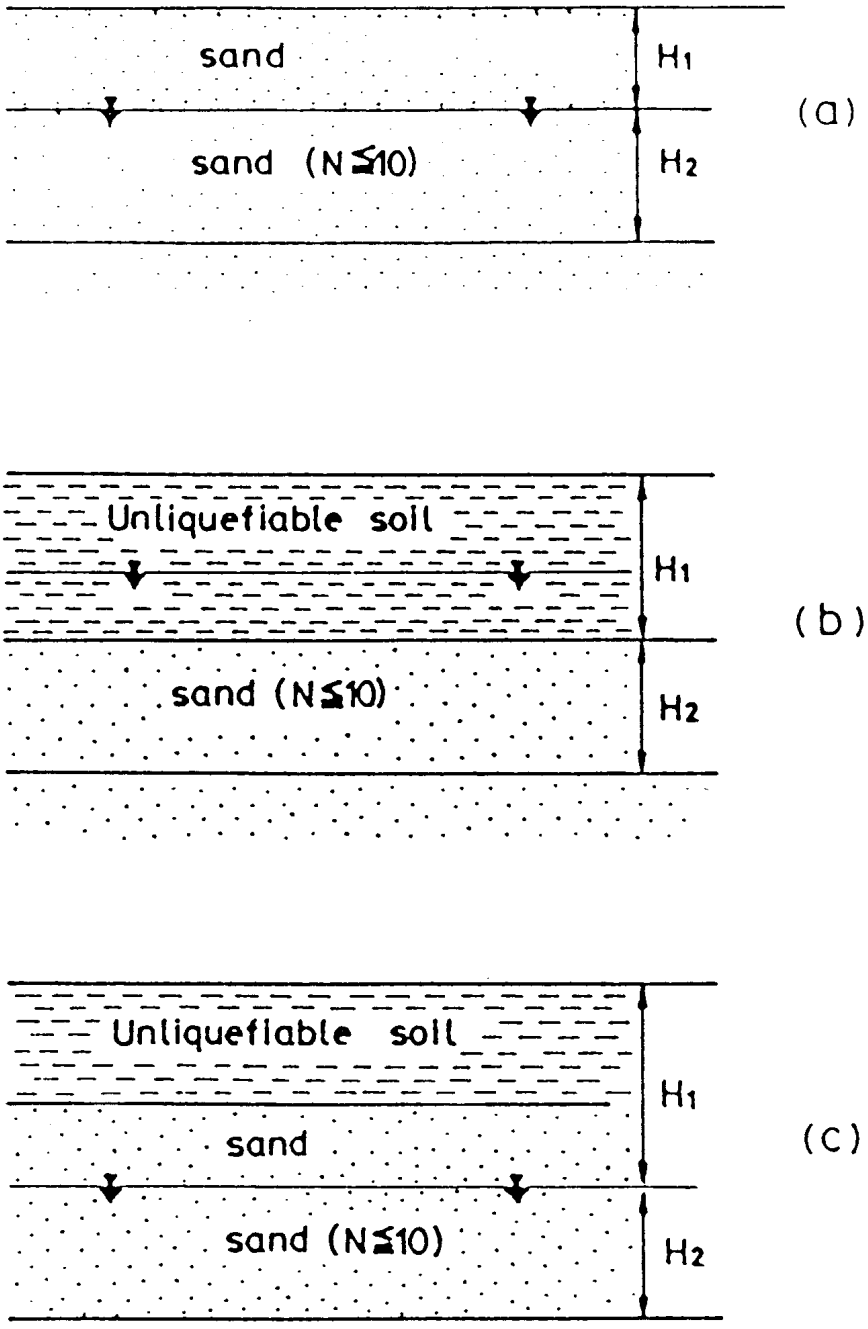


Figure 7.13. Definitions of the Surface Unliquefiable Layer and the Underlying Liquefiable Sand Layer (After Ishihara, 1985)

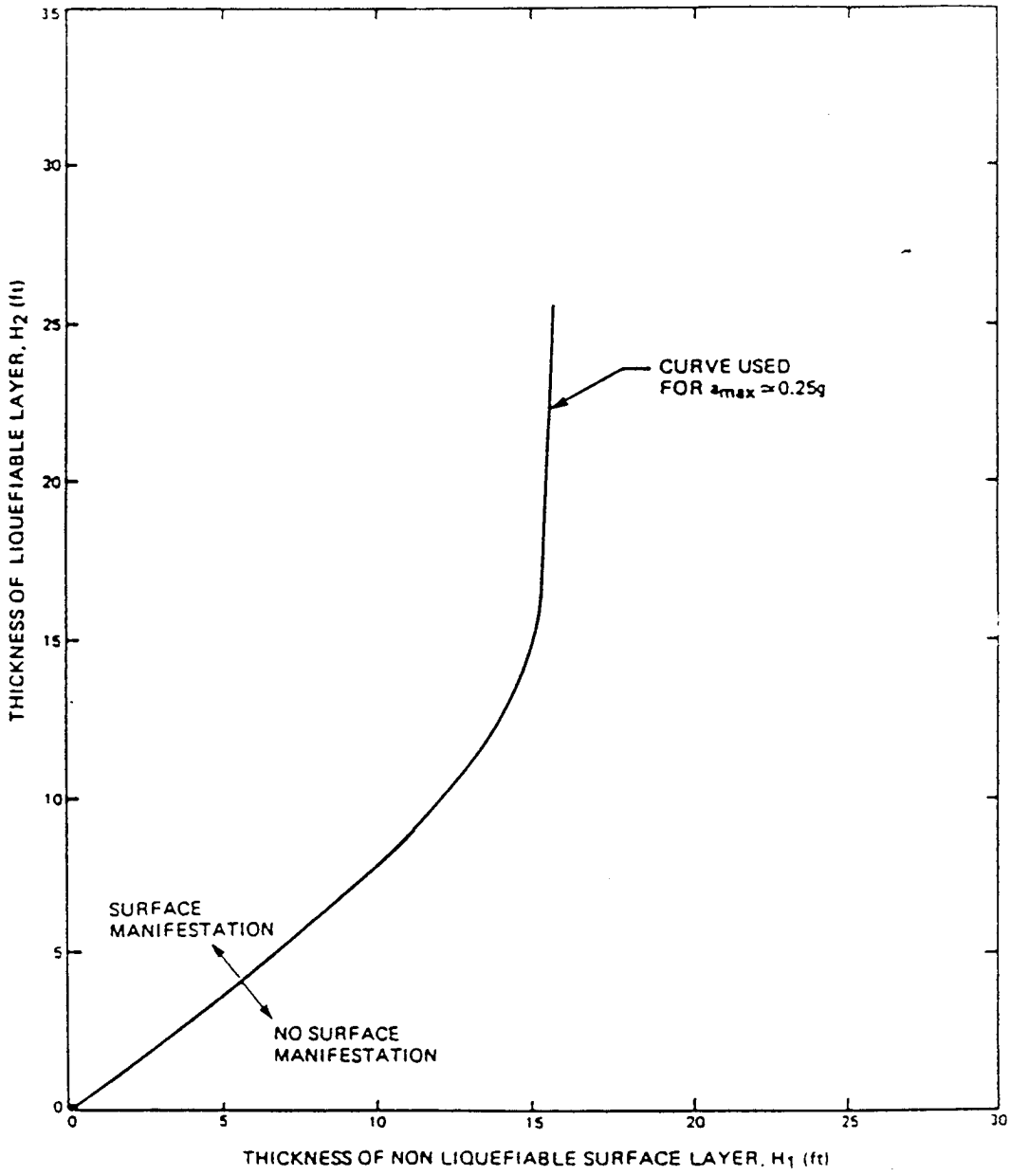


Figure 7.14. Typical Chart for Evaluation of Surface Manifestations of Liquefaction (for Maximum Ground Acceleration of 0.25g) (After Ishihara, 1985)

RESPONSE TO COMMENT LETTER NO. PA-2
Tom Luster, Senior Environmental Scientist
California Coastal Commission
October 5, 2016

PA 2-1 The commenter questions the availability of the *Cambria Emergency Water Supply Project Geotechnical Evaluation* (CDM Smith, July 31, 2014) referenced in DSEIR Section 8.3, *Geology and Soils*, and requests a copy. The CCSD replied and provided a copy of the Geotechnical Evaluation on October 6, 2016. The Geotechnical Evaluation is available for public review at the Cambria Community Services District, 1316 Tamson Drive, Suite 201, Cambria, California 93428. No further response is necessary.

California Water Boards

Edmund G. Brown Jr.
Governor

Matthew Rodriquez
Secretary for
Environmental Protection

Central Coast Regional Water Quality Control Board

October 12, 2016

Bob Gresens
District Engineer
Cambria Community Services District
bgresens@cambriacsd.org

Sent via Electronic Mail

Dear Mr. Gresens:

CENTRAL COAST REGIONAL WATER QUALITY CONTROL BOARD - COMMENTS ON THE DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT - CAMBRIA SUSTAINABLE WATER FACILITY PROJECT

Thank you for the opportunity to comment on the above referenced document. Central Coast Regional Water Quality Control Board staff has reviewed the Draft Subsequent Environmental Impact Report (DSEIR) and offers the following comments:

General Comments

1. Table 3-13 on page 3-56 shows that new strainer and membrane filter (MF) backwash waste flows from the proposed Surface Water Treatment Facility (SWTF), combine for a total of 0.12 mgd when running at capacity. **3-1**

   This amount of new MF waste would violate discharge specification #5 of waste discharge requirements Order No. R3-01-100. The DSEIR should provide an analysis of estimated MF waste flows from both the SWF and SWTF facilities and determine whether or not the combined flows will be able to meet the flow limit contained in Order No. R3-01-100.

2. Table 3-15 on page 3-57 of the Project Description section of the DSEIR, states that water from the proposed potable water supply storage basin (re-purposed brine pond) could be impacted by contamination from bird and animal wastes. **3-2**

   What are the plans for disinfecting this water prior to delivery to customers should the need arise?

3. On page 5.5-15 of the Hydrology/Water Quality section of the DSEIR, the document states "Through the NPDES Permit Program, the RWQCB regulates waste discharges to both surface waters, such as rivers and the ocean, and groundwaters (via discharge to land)." **3-3**

   The text should be revised to read "The RWQCB regulates discharges to surface water, such as rivers and the ocean through the NPDES Permit Program, and discharges to groundwaters (discharges to land) through the Waste Discharge Requirements (WDR) program."

4. On page 5.5-27 of the Hydrology/Water Quality section of the DSEIR, the document states that the project returns 100 gpm to the San Simeon Creek Lagoon".

   The statement regarding the100 gpm figure for water returned to San Simeon Creek should be revised to reflect the approximate nature of this flow. It should be stated that CCSD personnel can modify the return flow rate according to its Adaptive Management Program (AMP), the Operations Maintenance and Monitoring Program (OMMP), and their Monitoring and Response Program and Adaptive Management Plan. The 100 gpm return flow figure should be corrected throughout the Hydrology/Water Quality section of the SDEIR, to reflect its approximate nature. **3-4**

5. On page 5.5-27 the document states "De-chlorinated/oxygenated product water (filtrate) is pumped during dry weather conditions for surface discharge habitat enhancement in the San Simeon Creek Lagoon."

   This statement should be revised to state that it is MF filtrate water that is pumped to San Simeon Creek Lagoon, and that it can potentially be augmented with de-chlorinated/oxygenated product water if the need arises (e.g. high TDS in the MF water). **3-5**

6. On page 5.5-34 of the Hydrology/Water Quality section, the document states: "The proposed 100 gpm discharge to the San Simeon Creek Lagoon would remain the same as the Project, although the location of the discharge point would be relocated further south to the northern San Simeon Creek bank. The proposed discharge at the creek bank would provide more efficient delivery of water into San Simeon Creek to maintain water levels in the lagoon"

   It should be recognized in the hydrology/water quality section that moving the discharge point to anywhere impinging upon, or below the ordinary high water mark for the Lagoon will require a 401 Water Quality Certification from the Regional Water Board, a 404 permit from the U.S. Army Corp of Engineers (USACOE), and a Streambed Alteration Agreement from the CA Department of Fish and Wildlife. Appendix E, Biological Resources Report notes these requirements, but typically it is the USACOE that makes the determination as to where the ordinary high water mark is on a project by project basis. **3-6**

Please contact Jon Rokke at (805) 549-3892 jon.rokke@waterboards.ca.gov or Chris Adair (805) 549-3761 Chris.Adair@waterboards.ca.gov with any questions you may have concerning this matter.

Sincerely,

Chris Adair

Digitally signed by Chris Adair
Date: 2016.10.12 09:14:11 -07'00'

for John M. Robertson
Executive Officer

ECM# 272525

R:\RB3\Shared\WDR\WDR Facilities\San Luis Obispo Co\Cambria WWTP\Emergency Water Supply Project\CEQA Response\SWF SDEIR Comments Ltr.doc

RESPONSE TO COMMENT LETTER NO. PA-3
Chris Adair
Central Coast Regional Water Quality Control Board (CCRWQCB)
October 12, 2016

PA 3-1 This comment is concerning DSEIR Table 3-13 and questions the potential violation of Discharge Specification #5. Namely, that the combined strainer and backwash rate flows would exceed an existing Water Board Order (R3-01-100) flow limit of 0.12 million gallons daily (mgd), which equates to 83 gallons per minute (gpm). DSEIR Table 3-13 shows the estimated backwash water flows to the percolation pond from the strainer and microfilter (i.e., SWTP: 0.07 MGD and Well SS-1: 0.05 MGD) of the proposed SWTP, which would treat water stored within the repurposed raw water storage basin, or water pumped by Well SS-1. This comment assumed from DSEIR Table 3-13 that a total of 0.12 MGD would be entering the percolation pond from the SWTP and Well SS-1. However, and to further clarify the Table, the SWTP and Well SS-1 would not operate at the same time. Therefore, the maximum backwash flow rate from the proposed modifications would be 0.07 MGD from the SWTP. The AWTP, per Permit 2014-0047-WDR Figure 2, has an average backwash flow of 37 gpm, or 0.053 MGD. Since the AWTP and SWTP could operate at the same time, the total maximum backwash flow to the percolation pond from these two sources would be 0.07 MGD + 0.053 MGD = 0.123 MGD. Pursuant to Waste Discharge Order R3-2014-0050 Table 2, the CCSD is allowed to discharge 90,000 gpd (0.09 MGD) to the percolation ponds.

As part of its future detailed design, the SWTP's backwash flow rates will be reviewed to determine whether it would be feasible to stay below the existing permit limit of 0.09 mgd while operating at the same time as the AWTP. If this is not found to be feasible, a modification request would be made to the Water Board to consider increasing the permit's 0.09 mgd backwash water rate to approximately 0.123 mgd. It is also anticipated that there would be ample capacity in the percolation pond system to handle the 0.033 mgd differential increase in the allowable backwash rate. Such a future request would explain that wastewater effluent flows into the percolation ponds are relatively low while the AWTP is normally operating.

PA 3-2 DSEIR Section 3.5.2.2, *Surface Water Treatment Plant*, discusses the plans for disinfecting water from the proposed raw water storage basin prior to delivery to customers. The membrane filtration system would be designed to achieve the membrane filtration water goals described in DSEIR Table 3-14, *SWTP Membrane Filtration Water Quality Goals*.

PA 3-3 To further clarify the CCRWQCB's regulatory jurisdiction, DSEIR Page 5.5-15 is revised in the FSEIR as follows:

The quality of the State's waters can be affected by many sources that come in different forms and amounts. For regulatory purposes, these sources are categorized by whether they are planned, easily-identified "end-of-pipe" waste discharges from a single, discrete source such as constructed conveyance systems (known as "point source discharges"), or from planned or unplanned discharges from more diffuse runoff that covers a wide area (known as "nonpoint source discharges"). The waste can be in liquid or solid form, and can be in small to very large volumes. The RWQCB regulates discharges to surface water, such as rivers and the ocean through the NPDES Permit Program, and discharges to groundwaters (discharges to land) through the Waste Discharge Requirements (WDR) program. ~~Through the NPDES Permit Program, the RWQCB regulates waste discharges to both surface waters, such as rivers and the ocean, and groundwaters (via discharge to land).~~ The type of permits issued by the RWQCBs to control these various sources of pollutants depends on the type/category of waste, where the waste is discharged, and State and federal laws and regulations.

PA 3-4 The comment accurately notes that the amount of surface water that is returned to San Simeon Creek Lagoon is adaptable, as discussed on DSEIR Page 5.3-60. Mitigation Measure BIO-7 (Adaptive Management Plan), requires that the CCSD implement an AMP entailing long-term monitoring. The AMP requires monitoring of groundwater levels, surface water levels/flows, in-stream and riparian habitat, and presence of listed species. As specified in BIO-7, based on the results of the biological monitoring and any noted adverse changes in these habitats, SWF operations shall be adjusted such that the amount of treated water that is re-injected into the system, is either increased or decreased to restore affected habitat features. It is expected that the filtrate product water flow returned at any time would be approximately 100 gallons per minute (gpm), as deemed necessary by the Project's AMP. To further clarify the Project Design Feature's (PDF) approximate 100 gpm flow to San Simeon Creek Lagoon is adaptable, DSEIR Page 5.5-27 is revised in the FSEIR as follows:

SUSTAINABLE WATER FACILITY

The SWF transfers extracted groundwater to the AWTP, which treats brackish water to produce potable water. The treated AWTP product water is re-introduced/pumped for injection into the groundwater basin. The RO concentrate is disposed for evaporation in the evaporation pond and the MF backwash is discharged to the existing percolation ponds. As detailed in Table 3-3, *AWTP Process Design Flows*, the SWF specifically includes the following activities that involve discharges to groundwater and land: ~~reinjects 452 gpm into San Simeon Creek aquifer~~

~~further up-gradient at the well field; returns 100 gpm to the San Simeon Creek Lagoon; discharges 39 gpm of RO concentrate to the evaporation pond; and discharges 37 gpm of MF backwash to the percolation ponds.~~

- 452 gpm of advanced treated water (RO permeate and UV feed flow) is re-injected into the San Simeon Creek aquifer further up-gradient at the well field; ~~returns~~
- Approximately 100 gpm of MF filtrate flow (as deemed necessary by the Project's Adaptive Management Plan (AMP) (see Mitigation Measure BIO-7 ~~reinjects~~) is surface discharged to the San Simeon Creek Lagoon; [1]
- 39 gpm of RO concentrate and membrane cleaning waste is discharged to the evaporation pond; and ~~discharges~~
- 37 gpm of automatic strainer backwash and MF backwash is discharged to ~~the~~ a percolation pond, which flows back into the groundwater aquifer.

As previously noted, the SWF transfers extracted groundwater to the AWTP, which treats brackish water to produce potable water. To meet California Department of Public Health (DPH) and CCRWQCB regulations, the treated AWTP product water is re-introduced/pumped for injection into the groundwater basin. MF filtrate water, which could potentially be augmented with de-chlorinated/oxygenated product water ~~(filtrate)~~, is pumped during dry weather conditions for surface discharge habitat enhancement in the San Simeon Creek Lagoon. An above-ground pipeline delivers approximately 100 gpm of ~~water~~ MF filtrate (as deemed necessary by the Project's AMP; see Mitigation Measure BIO-7) from the AWTP to a surface discharge structure; see Exhibit 3-5. The discharge structure, which is located just north of the San Simeon Creek tree line, dissipates velocity, in order to create a sheet flow of mitigation water, prior to entering upstream of the San Simeon Creek Lagoon. The RO concentrate from the AWTP is disposed for evaporation in the Van Gordon Reservoir, an existing storage pond that was rehabilitated/modified into an evaporation pond to meet State Title 27 requirements. The CCRWQCB classifies the RO concentrate as a *Special Waste* and prohibits its discharge to Waters of the State in excess of background levels. The evaporation pond is lined with an impermeable liner system with leak detection to contain the RO concentrate and protect the underlying soil and groundwater. The RO concentrate evaporation is aided with five mechanical spray evaporators.

[1] As discussed in DSEIR Section 5.5 and specified in DSEIR BIO-7, based on the results of the biological monitoring and any noted adverse changes in these habitats, SWF operations would be adjusted such that the amount of MF filtrate product water re-injected into the system, is either increased or decreased to restore affected habitat features. It is expected that the MF filtrate product water re-injected at any time would be approximately 100 gpm.

PA 3-6 As noted on DSEIR Page 5.3-74, Mitigation Measure BIO-18 requires that the San Simeon Creek Lagoon discharge structure be designed to avoid impacts to riparian habitat to the greatest extent feasible, and that the CCSD comply with all applicable local, state, and federal regulations concerning impacts to riparian habitat, including Clean Water Act (CWA) Sections 401 and 404, and/or California Department of Fish and Wildlife (CDFW) Code §1602. Finally, Mitigation Measure BIO-19 requires that the CCSD minimize the disturbance and removal of riparian vegetation, to the extent possible.

DSEIR Page 5.5-34 is revised in the FSEIR as follows:

The lagoon surface discharge extension would be required to file an Amendment to the Region-wide General NPDES Permit for Discharges with Low Threat to Water Quality (General Permit). The Project design feature's approximate 100 gpm ~~discharge~~ filtrate product water flow to the San Simeon Creek Lagoon (as deemed necessary by the Project's Adaptive Management Plan, see Mitigation Measure BIO-7) would remain the same as the Project, although the location of the discharge point would be relocated further south to the northern San Simeon Creek bank. Moving the discharge point to anywhere impinging upon, or below the ordinary high water mark, would require a 401 Water Quality Certification from the Regional Water Quality Control Board, a 404 Permit from the U.S. Army Corp of Engineers, and a Streambed Alteration Agreement from the CDFW; see also Mitigation Measure BIO-18. The proposed discharge at the creek bank would provide more efficient delivery of water into San Simeon Creek to maintain lagoon water levels, while also avoiding the potential favoring of water quality samples taken from nearby monitoring well 16D1 due to the lagoon water discharge's high quality. At the revised discharge point, articulating concrete block (ACB) (Armorflex) lining is proposed to protect the northern San Simeon Creek channel bank from erosion. Armorflex allows for the continued growth of riparian vegetation, further protecting the channel from any potential erosion.

STATE OF CALIFORNIA—NATURAL RESOURCES AGENCY EDMUND G. BROWN, JR., *GOVERNOR*

CALIFORNIA COASTAL COMMISSION

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October 26, 2016

TO: Mr. Robert C. Gresens, P.E.,
District Engineer
Cambria Community Services District, Planning Department
1316 Tamson Drive, Suite 201
Cambria, CA 93428

VIA EMAIL: bgresens@cambriacsd.org

RE: Comments on Draft Subsequent Environmental Impact Report ("DSEIR") for the Cambria Community Service District's ("CCSD's") proposed Cambria Sustainable Water Facility Project (SCH #2014061073)

Dear Mr. Gresens:

Thank you for the opportunity to comment on the above-referenced document, which evaluates the CCSD's proposed water supply project. The DSEIR describes two versions of the project – first, the project as it was constructed and operated by the CCSD pursuant to an emergency Coastal Development Permit ("CDP") issued in 2014 by the County of San Luis Obispo; and second, the same project with modifications the CCSD is proposing that would change the project from providing a short-term emergency water supply to providing a longer term supply. For purposes of clarity, we refer herein where necessary to the project as currently constructed and operating as the "existing" project and to the project as proposed to be modified as the "proposed" project – i.e., as it is described in the DSEIR's Section 3.5.2 with a "repurposed" evaporation basin, modified treatment system, alternative discharge disposal methods, etc. The DSEIR's main focus is on the proposed project, and our comments are similarly focused on the proposed project. However, some of our comments will refer to concerns or questions about the existing project. **4-1**

The project is subject to CDP review and approval by San Luis Obispo County for conformity to the County's certified Local Coastal Program ("LCP"). The project is also subject to the Coastal Commission's federal consistency review, with portions of it subject to CDP review and approval by the Commission. Our comments below are focused primarily on project components that have a known or potential effect on coastal resources. We are also incorporating by reference relevant comments we previously provided in our April 6, 2015 comment letter on the CCSD's 2015 *Notice of Preparation of a Draft Environmental Impact Report* for the previous version of the proposed project and in our July 22, 2014 letter on the CCSD's 2014 *Initial Study/Mitigated Negative Declaration* ("IS/MND") for another previous version of the proposed project. **4-2**

Our overall recommendation is that the CCSD substantially revise the DSEIR to incorporate more complete and accurate data and information and to use this information to fully re-evaluate the project's known and expected adverse effects. Given the need for significant revision of the document, our comments below cover just certain key aspects of the DSEIR, not each of the analyses within it. Our primary concerns, elaborated below, are: (1) The San Simeon watershed does not appear to have adequate water available for the proposed project; (2) Both the existing project and the proposed project will have significant adverse impacts on habitat and biological resources, including listed species, that have not been adequately analyzed in the DSEIR; and (3) The new growth anticipated by the proposed project and analyzed in the DSEIR would not be supported by the project once the constraints of the water available in the San Simeon watershed are adequately analyzed. Even if this growth were sustainable in the short run, the DSEIR does not analyze how such new growth would be provided with water beyond the project's expected 20-25 years of operations and it does not evaluate the adverse effects that would result from that situation. **4-3**

Specific Comments

Section 2.3 – Notice of Preparation/Early Consultation (Scoping): The DSEIR states that the project results in "no impacts" or "less than significant impacts" in several issue areas, including "Geology and Soils," "Hazards and Hazardous Materials," and "Traffic and Transportation." We believe, however, that the project could result in significant adverse effects related to each of these issue areas, as described in our comments below on the DSEIR's Section 8.0. **4-4**

Section 3.1 – Project Location: The DSEIR's project description states that development associated with the project will occur on two parcels owned by the CCSD. We understand, however, that the project's monitoring equipment will extend onto adjoining State Parks property and that the CCSD may also need to conduct additional well monitoring at other nearby properties. We recommend the DSEIR be revised to describe all offsite components of the project along with analyses of any adverse effects that may result from placement and operation of that equipment. **4-5**

Section 3.2.1 – Project History, Water Supplies and Drought: The DSEIR's descriptions and analyses of the project's available and expected water volumes appear to be incomplete and inaccurate. We recommend the DSEIR be revised to correct and clarify the actual water volumes available to the CCSD and that it incorporate relevant stream flow data and groundwater volumes into its assessments, including as described in the examples below. The revised DSEIR should also include a complete description of the San Simeon watershed water balance based on these corrected volume and flow values. **4-6**

- **Incorrect description and analyses of available water rights:** The DSEIR states (at page 3-7) that the CCSD is able to pump a maximum of 1,118 acre-feet from the San Simeon and Santa Rosa groundwater basins during the wet season and a maximum of 630 acre-feet from those basins during the dry season.[1] However, the actual water volumes

[1] The DSEIR also acknowledges that Coastal Commission CDP #428-10 limits the total combined production from both creeks to no more than 1,230 acre-feet per year and further limits production from Santa Rosa Creek to no more than 260 acre-feet between July 1 and November 20 of any year and no more than 147 acre-feet during the rest of any year, with at least 20% of the CCSD supply required to be made available for visitor-serving purposes.

available to the CCSD are substantially less than those stated in the DSEIR and the associated pumping and diversion requirements are more complex than described in the DSEIR.[2] The CCSD's water rights permit for San Simeon Creek also requires that the CCSD "maintain water levels in the lower basin" to sustain stream flow to the lagoon and maintain fish and riparian wildlife habitat, to provide irrigation to maintain riparian vegetation along the shoreline of the CCSD-owned property, and to obtain a determination from the California Department of Fish and Wildlife that measures necessary to protect fish and wildlife resources are incorporated into any water diversion. Further, and pursuant to a separate 2006 settlement, the CCSD must separately provide approximately 205 acre-feet per year from the San Simeon basin to a neighboring property, which, presumably, would further reduce the water available to the CCSD for the proposed project. The DSEIR does not adequately analyze the adverse impacts of the project on the watershed and how it would comply with the requirement that water levels in the lower basin be sustained. **4-6**

- **Excessive proposed project diversions:** The DSEIR descriptions of expected project water use and the accompanying analyses (see, for example, Section 3.5.1.2 – Project Flows and Water Quality) are based on the proposed project diverting 629 gallons per minute ("gpm") from Well 9P7 during its six months of annual dry season operations. This would total about 500 acre-feet during that period, or about 130 acre-feet more than the 370 acre-feet permitted during the dry season. Of that total diversion, the CCSD proposes to reinject up to 452 gpm (equal to about 360 acre-feet over a six-month period) of treated water higher in the aquifer, and divert up to 100 gpm (or about 80 acre-feet total) as mitigation flows to San Simeon Lagoon. The DSEIR does not adequately address how the CCSD will obtain up to 100 gpm for use as mitigation flows when its water rights are about 130 acre-feet less than what the DSEIR assumes is available to the CCSD. Given that the proposed project requires water both for extraction to be provided to customers and to mitigate for the adverse impacts of the project, it is important that the DSEIR accurately reflect how the CCSD will obtain all of the water necessary for the project and required mitigation. As we have discussed with you previously, recent independent stream flow studies have indicated that the existing levels of diversions from San Simeon Creek are adversely affecting the watershed's habitat values.[3] Additionally, and as noted in our comments below, the DSEIR's analyses are not sufficient to support its conclusion that "up to 100 gpm" is an adequate mitigation flow to address the project's adverse effects. **4-7**

[2] According to the State Water Resources Control Board Division of Water Rights, the CCSD initially requested through its application for Water Rights Diversion Permit #20387 a diversion of 518 acre-feet per year from Santa Rosa Creek, though we understand the CCSD perfected only about 217 acre-feet of that requested annual diversion prior to expiration of its application. Similarly, the CCSD initially requested through its application for Water Rights Diversion Permit #17827 a diversion of up to 1,230 acre-feet per year from San Simeon Creek, though we understand the CCSD perfected only about 798 of that requested annual diversion before expiration of its application. These permits also include other conditions that further limit the amount of water the CCSD may divert any year.

[3] See, for example, *San Luis Obispo County Regional Instream Flow Assessment*, Stillwater Sciences, January 2014 and the *San Luis Obispo County Watershed Management Planning Project Phase 1*, Resource Conservation District, January, 2014.

- Most of the DSEIR's analyses appear to be based primarily on a "net" diversion of 452 gpm instead of the proposed "gross" diversion of 629 gpm. This leads to underestimates of the project's potential impacts – for example, the higher extraction volume would presumably lead to greater dewatering and drawdown in the lower basin of San Simeon Creek than described or evaluated in the DSEIR, which would lead to the project causing greater adverse effects than described to surface water characteristics, riparian and wetland areas, and seawater intrusion beneath the San Simeon Lagoon. The analyses should be based on the "gross" withdrawals and should describe expected drawdowns and the extent of the "cone of depression" around the extraction well to identify potential adverse effects to streamflow and nearby riparian and wetland habitats. **4-8**

- The project depends in part on percolated treated wastewater from the CCSD's wastewater treatment facility, but the DSEIR does not appear to incorporate the contributions of this water source into its analyses. The DSEIR should describe the expected volumes, seasonal and daily timing, flow rates, and other relevant characteristics regarding the project's reliance on this water source, and should describe the effects of withdrawing this water source from the aquifer. The DSEIR is also not clear as to how the CCSD's water rights might be influenced by wastewater it introduces back into the basin. **4-9**

We understand, too, that the CCSD's current (September-October 2016) tracer test to determine the suitability of the proposed facility as a drinking water supply source is using substantially lower water volumes than those described and evaluated in the DSEIR – i.e., the tracer test is being run at a pumping and injection rate of 400 gpm, not the project's proposed 452 gpm described and evaluated in the DSEIR. This suggests, at the very least, that any conclusions resulting from the tracer test regarding the effects of project pumping and injection would be undercharacterized. These tracer test results will therefore be unreliable predictors of the adverse impacts of the proposed project. We recommend that any revised DSEIR or final SEIR not rely on these tracer test results to characterize project effects on the aquifer or nearby habitats. **4-10**

Section 3.5.1.2 – Advanced Water Treatment Plant: Table 3-4 in this Section summarizes the expected constituent levels for lagoon discharge, RO permeate, and RO concentrate water quality based on "an assumed mid-year membrane life following three years of operations." We recommend the DSEIR be modified to include the expected water quality during the full range of membrane life – i.e., provide the expected water qualities at the beginning and end of membrane service life, so that the environmental effects of these discharges can be fully analyzed. **4-11**

Section 3.5.1.2 – Lagoon Surface Discharge: The project includes a proposed mitigation flow of up to 100 gallons per minute into the San Simeon Lagoon; however, the DSEIR does not provide the necessary data or analyses to support its contentions that this flow would be available for use as mitigation or that it would adequately mitigate for project effects. For example, and as described elsewhere in these comments, the DSEIR does not adequately describe or assess the extent of surface water and aquifer drawdowns that would occur due to the proposed project's pumping rates, and it is therefore not clear whether 100 gallons per minute would provide adequate mitigation. The document also does not describe how the mitigation pumping rates would be determined – i.e., how the CCSD would determine whether to provide the full "up to" 100 gallons per minute or some lesser volume. While the DSEIR refers to an "Adaptive Management Plan" regarding this and other mitigation measures, that Plan has not yet been made available for public or agency review. **4-12**

Additionally, the selected site for the proposed flow mitigation would not provide the levels of protection required by the CCSD's water rights permit, which establishes that the CCSD is to maintain water levels in the San Simeon lower basin that will sustain stream flow to the lagoon and provide for fish and riparian wildlife habitat. The San Simeon Creek lower basin extends about three-quarters of a mile upstream from the proposed flow mitigation site and consists of a riparian and wetland corridor that is likely to be adversely affected by drawdown resulting from project pumping.[4] Any mitigation flows meant to provide the required support of lower basin habitat should be introduced at the upstream end of the lower basin, and likely at substantially higher volumes than are currently proposed. We recommend the DSEIR be revised to fully identify the expected extent of project-related drawdowns, to assess the water volumes needed to support the lower basin's riparian and wetland habitats, and to identify the timing and volume of mitigation flows needed to provide the water needed for these habitat areas. 4-13

Section 3.5.2 – Mitigation Measures (Project Modifications) – "Repurposing" the Evaporation Basin and adding a Surface Water Treatment Plant: The DSEIR describes "repurposing" the existing project's evaporation basin to instead serve as a potable water supply storage basin. The document also describes adding a surface water treatment plant ("SWTP") to treat the water stored in the basin before distributing it to the CCSD's water customers. The DSEIR states that the potable water supply storage basin "would be seasonally filled during the wet season when there is adequate flow occurring in the local creeks." It also states that the repurposed basin and SWTP would allow the CCSD to produce not only the currently proposed 400 gpm from the San Simeon well field but an additional 500 gpm from the SWTP to "meet the projected maximum day demand." The document, however, does not explain how this proposed production is consistent with the CCSD's actual water rights or the overall water balance for the San Simeon watershed. For example, the document does not describe the amount or timing of the diversions proposed under this "mitigation measure," and it does not analyze the impact of these diversions. This description is also inconsistent with others in the DSEIR that describe the project as operating just during the six-month dry season. We recommend the document be revised to include consistent definitions of the proposed project and that if wet season diversions are proposed that their impacts are adequately analyzed. It is also not clear why the DSEIR describes the SWTP as a "mitigation measure," since it appears that it would exacerbate adverse effects on San Simeon Creek and nearby habitats. We recommend the DSEIR evaluate the proposed SWTP as a project component that will need mitigation measures to avoid or reduce the impacts of its operations. 4-14

Additionally, and as part of the "repurposed" basin proposal, the DSEIR describes two scenarios to transport the project's effluent to a hazardous waste facility instead of storing it in the basin. These scenarios would involve four to 10 truck trips per day during six to 12 months of annual operations, and both assume 6,000 gallons of effluent per truck and 170 miles for each round trip. The DSEIR does not adequately evaluate potential adverse effects that would result from 4-15

[4] The DSEIR cites a 1998 USGS report that describes the lower basin of San Simeon Creek as extending upstream to Well 9L1, which is located about three-quarters of a mile upstream of the location that the CCSD proposes to have mitigation flows enter San Simeon Creek. See Yates and Konyenburg, *Hydrogeology, Water Quality, Water Budgets, and Simulated Responses to Hydrologic Changes in Santa Rosa and San Simeon Creek Ground-Water Basins, San Luis Obispo County, California*, by U.S Geological Survey Water Resources Investigations Report 98-4061, prepared in cooperation with the San Luis Obispo County Flood Control and Water Conservation District, 1998.

spills or releases that occur during transport of the project effluent. We recommend that the DSEIR be revised to include descriptions and evaluations of the likely effects of spills or releases along the potential transport routes. The analyses should include a description of maximum expected volumes of any spills or releases, measures that would be implemented to avoid or reduce the potential for spills or releases, the measures needed to respond to any spills or releases, and the likely impacts of spills or releases on coastal biological resources, public access to the shoreline, and other coastal resources. **4-15**

Section 3.5.2 – Mitigation Measures (Project Modifications) – Lagoon Surface Discharge Extension: Section 3.5.2.7 of the DSEIR proposes moving the lagoon surface discharge extension closer to the San Simeon Lagoon. The DSEIR, however, fails to conduct an adequate alternatives analysis for this mitigation feature. The DSEIR should also analyze a discharge location about three quarters of a mile further upstream of this proposed location, so that the discharge could provide benefits to the upper end of the lower San Simeon watershed. **4-16**

Section 3.7 – Agreements, Permits, and Approvals: The DSEIR states that approvals "may" be required from several agencies, including the California Department of Fish and Wildlife and the U.S. Fish and Wildlife Service. As described in our comments below on Biological Resources, and the comments the CCSD received previously from state and federal wildlife agencies, it appears that the project as proposed would result, or already has resulted, in "take" of listed species and therefore is subject to review and approval of "take" permits from one or both of those agencies, as well as from the National Marine Fisheries Service.[5]

We recommend the DSEIR be revised to describe approvals from the wildlife agencies as being required for the project and that the document's analyses be modified to address the likely requirements of these approvals.[6] For example, because the proposed project would pump and transport water in a way that is likely to further reduce surface and subsurface creek flows within lower San Simeon Creek, we recommend the DSEIR be revised to identify what mitigation measures are needed to avoid the "take" of steelhead and other listed species and to protect other riparian and wetland functions. We also recommend that the DSEIR identify the U.S. Army Corps of Engineers as an agency with jurisdiction, both through the Section 404 permit that the project will require and through the ongoing funding the Corps has provided for the project.[7] The project is also subject to the Coastal Commission's federal consistency review. **4-17**

Section 4.0 – Basis of Cumulative Analysis: This section of the DSEIR describes a number of nearby projects that, along with the CCSD's proposed water project, may result in cumulative adverse impacts. However, the DSEIR does not include in its list or assessment of nearby **4-18**

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[5] See CDWF letter of August 6, 2015, USFWS letters of April 6, 2015 and July 22, 2014, and NMFS letters of April 6, 2015 and August 14, 2014. Additionally, and as noted above, the proposed project is subject to a determination by the CDFW to ensure that any measures needed to protect fish and wildlife resources are incorporated into the proposed water diversion.

[6] Alternatively, the CCSD may wish to provide confirmation from the agencies that no such approvals are needed.

[7] The DSEIR acknowledges the Corps' role in project design (see Section 3.2.1) and the Corps has identified ongoing funding for the project (see, for example, the Corps' Project Cooperation Agreement at: http://cdm16021.contentdm.oclc.org/cdm/ref/collection/p16021coll7/id/1509 , the Amendment to the Agreement at: http://cdm16021.contentdm.oclc.org/cdm/ref/collection/p16021coll7/id/1510, and the 2016 federal funding of $190,000 at http://www.spl.usace.army.mil/Media/Fact-Sheets/Article/477360/cambria-seawater-desalination/).

projects the 2013 National Marine Fisheries Service's *South-Central California Steelhead Recovery Plan* and does not adequately describe or assess the effects of the project site being within designated critical habitat for steelhead.[8] This *Recovery Plan* identifies several Critical Recovery Actions for the San Simeon Creek watershed, including:

> *Develop and implement operating criteria to ensure the pattern and magnitude of groundwater extractions and water releases, including bypass flows around diversions, provide the essential habitat functions to support the life history and habitat requirements of adult and juvenile steelhead. Remove or modify instream fish passage impediments to allow steelhead natural rates of migration to upstream spawning and rearing habitats, and passage of smolts and kelts downstream to the estuary and ocean. Manage instream mining to minimize impacts to migration, spawning and rearing habitat. Identify, protect, and where necessary, restore estuarine rearing habitat, including management of artificial sandbar breeching at the river's mouth, and upstream freshwater spawning and rearing habitats.*

4-18

We recommend the DSEIR be revised to include a comprehensive assessment of the cumulative impacts the proposed project is likely to cause as they relate to relevant components of the *Recovery Plan*. These should include an assessment of whether the project's effects on streamflow and the aquifer due to groundwater extraction will result in take of listed species and the adequacy of the proposed mitigation flows for addressing any adverse effects in the lower basin of the San Simeon watershed. [See also our comments below on Section 5.3 – Biological Resources.]

Section 5.0 – Environmental Analysis

This section of the DSEIR describes the analyses conducted for each environmental issue area for which the CCSD determined the project could result in significant adverse impacts. It also states that no significant impacts are anticipated for some issue areas including "Hazards and Hazardous Materials," "Traffic and Transportation," and "Geology and Soils." However, because the proposed project would involve increased chemical use, would generate hazardous materials in the form of waste brine, and would require transport of those materials over a substantial distance (up to about 160 miles) to a landfill or suitable disposal facility, we recommend the document be revised to include a full evaluation of the potential significant impacts in these issue areas, as described below in our comments on Section 8.0 – Effects Found Not To Be Significant.

4-19

[8] Section 21065 of the CEQA regulations defines "project" as "an activity which may cause either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment, and which is any of the following:
(a) An activity directly undertaken by any public agency.
(b) An activity undertaken by a person which is supported, in whole or in part, through contracts, grants, subsidies, loans, or other forms of assistance from one or more public agencies.
(c) An activity that involves the issuance to a person of a lease, permit, license, certificate, or other entitlement for use by one or more public agencies."

Section 5.3 – Biological Resources

The project site is within designated critical habitat for four listed species – Central Coast steelhead, tidewater goby, California red-legged frog, and Western snowy plover – yet the DSEIR does not adequately evaluate the project's effects on these species or their habitats.[9] Our comments below focus on just two main components of the project's adverse effects on biological resources – its effects on sensitive habitat areas and on steelhead, but the DSEIR should be revised to evaluate the project's effects on all of these species. 4-20

- **Environmentally Sensitive Habitat Areas and Waterbodies:** The DSEIR identifies eight plant communities within and adjacent to the project area, several of which are likely considered environmentally sensitive habitat areas (ESHAs) for purposes of the County's LCP and the Coastal Act. It also describes wetlands and stream habitats onsite and adjacent to the project that are protected by LCP and Coastal Act policies. While the DSEIR lists a number of relevant LCP and Coastal Act policies (in both Section 5.3 and in Section 5.6 – Land Use), it does not adequately describe whether the project is consistent with these policies.[10] In some instances, the DSEIR does not address project nonconformity at all, or does not identify mitigation measures that would likely be needed for the project to conform to relevant LCP and Coastal Act policies. For example, the DSEIR does not address project development in the form of water withdrawals and changes in intensity of use within these habitat areas that are likely to significantly disrupt or degrade their habitat values. It also does not fully describe some of the habitat areas affected by the project – for example, while the document states that there are approximately 54.65 acres of Commission-jurisdictional wetlands within and adjacent to the project area, it does not fully illustrate their location or describe the different types of wetlands and the different wetland functions likely to be adversely affected by the project. We recommend the DSEIR be substantially revised to address these issues, including a full evaluation of the adverse effects of project development on these areas and a description of the mitigation measures needed to avoid or minimize those effects. 4-21

- **Steelhead:** The DSEIR appears to discount the presence of steelhead in San Simeon Creek and provides an inadequate evaluation of the proposed project's adverse effects on this listed species. The DSEIR cites only a limited amount of the full set of available data applicable to the species' presence in the watershed and does not provide the comprehensive analysis required to identify and avoid effects on a listed sensitive species such as the Central Coast steelhead. It also does not fully acknowledge the designation by the National Marine Fisheries Service of the lower San Simeon watershed as listed critical habitat for the species[11] and does not evaluate the project for conformity to provisions of the *South-Central California Steelhead Recovery Plan.* For example, the 4-22

[9] The project site is also in or adjacent to, and would affect, habitat used by a number of California species of special concern or CDFW "watch list" species, including the Western pond turtle, foothill yellow-legged frog, Coast Range newt, two-striped garter snake, and others.

[10] The DSEIR at page 5.3-27 also erroneously cites Coastal Act Section 30007.5, which is related to conflicts between Coastal Act provisions but is not applicable to this project.

[11] See National Marine Fisheries Service, *South-Central California Coast Steelhead Recovery Plan*, Southwest Region, Protected Resources Division, Long Beach, California, 2013.

DSEIR implies that suitable habitat for steelhead exists only in the perennial reaches of San Simeon Creek, not in the lower reaches adjacent to the project site where flows are not always perennial.[12] This is inconsistent with the more complete data available in the *Recovery Plan* regarding steelhead life history and evidence of the steelhead's extended presence in the watershed during periods of drought and low flows. The *Recovery Plan* states, for example, that steelhead exhibit several basic life history strategies regarding the amount of time they spend in fresh, estuarine, and marine water habitats, and that the substantial variation among these strategies has allowed the steelhead "to persist in the highly variable and challenging south-central California environment." While some of these strategies depend on summer flows, others allow for survival in fresh water or estuarine refugia during times of low or no flows. Further, the *Recovery Plan* notes that progeny of fish that exhibit one particular strategy can exhibit the other strategies and states that this "switching of life-history strategies is an important adaptive response" in these highly variable environments. This appears to help explain the persistence of steelhead in San Simeon Creek not only during the 18 years of streamflow records referenced in the DSEIR, but during the preceding millennia that included a number of multiple-year droughts and low/no streamflow conditions in the lower San Simeon Creek watershed. **4-22**

The *Recovery Plan* also identifies threats to the steelhead and identifies a number of "Critical Recovery Actions", several of which relate to the CCSD's proposed project. For example, the project is largely a groundwater extraction project, and the *Recovery Plan* specifically designates groundwater extraction in San Simeon Creek as a "Very High Threat" to ongoing survival of steelhead within the watershed. The *Recovery Plan* also includes at least one specific Critical Recovery Action related to the proposed project: "Implement operating criteria to ensure the pattern and magnitude of groundwater extractions and water releases, including bypass flows around diversions in San Simeon, Santa Rosa, San Luis Obispo, Pismo, and Arroyo Grande Creeks provide the essential habitat functions to support the life history and habitat requirements of adult and juvenile steelhead."[13] While the DSEIR identifies at least two CEQA "Significance Criteria" that appear to apply to the project's adverse effects on steelhead – i.e., would the project have a substantial direct or indirect adverse effect on listed species, and would the project interfere substantially with the movement of native fish or impede the use of native wildlife nursery sites – the document's analyses do not adequately evaluate the project against these criteria. We recommend that the DSEIR be revised so that its **4-23**

[12] See, for example, the DSEIR's Appendix E6, which is an October 2015 technical memorandum from CDM Smith prepared in response to Coastal Commission staff's April 2015 comment letter on the CCSD's previous version of the project. In response to concerns raised about the environmental flows needed to support critical habitat in the lower portion of San Simeon Creek, the memo states that "[l]ower San Simeon Creek should not be designated as steelhead critical habitat, due to predominant dry conditions during the critical summer period."

[13] The Recovery Plan also includes the following additional Critical Recovery Actions:

- Remove or modify instream fish passage barriers to allow steelhead natural rates of migration to upstream spawning and rearing habitats, and passage of smolts and kelts downstream to the estuary and ocean.
- Minimize erosion and sedimentation caused by upslope development and land uses (including roads, overgrazing, and agricultural and urban development).
- Restore channel morphology and riparian habitats affected by urban and agricultural floodplain encroachment and related flood control activities.
- Identify, protect, and where necessary, restore estuarine and freshwater rearing habitats.

analyses of these two criteria also acknowledge and incorporate the Critical Recovery Actions identified in the *Recovery Plan*.

We specifically recommend these criteria be applied to the CCSD's proposed mitigation flows. As noted above, the "up to 100 gpm" proposed flows do not appear to be adequate to support fish and riparian wildlife habitat in the lower basin and appear to be similarly inadequate to protect steelhead and other listed species. For example, introducing the proposed mitigation flows at the estuary instead of the upper reach of the lower basin would not support refugia that may be located between the upper reach and the estuary. **4-23**

Section 5.5 – Hydrology and Water Quality: The DSEIR identifies several reasons for decreases in surface water and groundwater levels, including seasonal differences in precipitation, natural dry-season drainage, and groundwater pumping by the CCSD and other water users in the watershed, but does not provide the full suite of analyses needed to assess the project's adverse effects on watershed hydrology and water quality. However, the DSEIR relies primarily on studies and models done just in the vicinity of the project, which do not adequately characterize project-related effects that may result in part from effects in other parts of the watershed (e.g., upstream pumping or diversions that reduce streamflows should be evaluated as to how their timing and volumes may affect instream flows near the project site). The CCSD has not yet conducted the instream flow study needed prior to approval of any new water project, as required pursuant to relevant provisions of the North Coast Area Plan. We recommend the necessary study be conducted as part of a revised DSEIR. **4-24**

We additionally recommend the DSEIR be revised to include the following analyses:

- **Identify extent of drawdown/"cone of depression":** Our previous comment letters requested that the CCSD identify the extent of the drawdown resulting from use of the project's extraction well and evaluate the effects of this drawdown related to the biological integrity of the nearby stream, wetlands, and estuary. We note, too, that the emergency CDP issued by the County includes a Special Condition requiring the CCSD to "provide results of hydrogeologic modeling showing the expected extent and elevations of aquifer drawdown from project operations and the extent of any "cone of depression" in relation to nearby wetlands, streams, and other coastal waters." **4-25**

  The DSEIR does not adequately characterize these elements of the project and their potential adverse effect. We recommend it be revised to include descriptions and analyses showing the extent of the expected project drawdowns and cones of depression under different proposed operating scenarios, especially as they extend to areas within or beneath the nearby coastal waters, as described above.

- **Identify expected/potential changes to estuary:** The proposed project has the potential to cause long-term changes to the San Simeon Creek estuary. Under some circumstances, the project's extraction well is likely to move the salt water "wedge" underlying the estuary to locations further inland, possibly creating more saline surface waters in the estuary than would otherwise occur and possibly affecting species dependent on the estuary. We recommend the DSEIR more fully describe and evaluate these likely changes and identify mitigation measures that could be implemented to avoid degradation of estuarine waters. **4-26**

- **Identify modified drainage patterns and loss of water from watershed:** The DSEIR does not assess the loss of water from the San Simeon Creek watershed resulting from construction of the evaporation/storage basin and from transport of water from that basin to areas outside of the watershed. For example, the basin creates about 3.3 acres of impervious surface on a portion of the project site that would otherwise contribute to the aquifer and nearby streams. At an average area rainfall of about 20 inches per year, the new impervious surface prevents between five and six acre-feet of water from reaching the lower watershed's aquifer, creek, wetlands, and estuary. This loss does not appear to be included in the evaluation of the project's proposed 100 gpm mitigation flows, which as noted above, do not appear sufficient to fully mitigate for the project's adverse effects, even without considering this additional adverse effect of the project. As we recommended in our April 2015 comments, we request the DSEIR assess the effects of the loss of this water from the lower watershed area and identify measures that will fully mitigate for this loss. **4-27**

- **Identify project effects on listed beneficial uses:** The document partially describes water quality beneficial uses of San Simeon Creek and its estuary, but does not assess how the project operations would be consistent with those beneficial uses.[14] As noted above, the project is likely to have more significant adverse effects that are currently described in the DSEIR, with some of those adverse effects potentially leading to nonconformity to the required beneficial uses of these waterbodies. We recommend the DSEIR be revised to fully evaluate whether the project conforms to these uses and what mitigation measures the CCSD would need to implement to ensure full conformity. **4-28**

Section 5.5 – Hydrology and Water Quality, Coastal Hazards – Tsunami, Seiches, Flooding: We recommend the DSEIR be revised to include additional analysis of the potential for these coastal hazards to adversely affect the project and for the project to result in adverse effects to coastal resources due to these hazards. Regarding tsunamis, the DSEIR acknowledges that portions of the project and site would be located in a tsunami runup zone, though it concludes that the project would result in less than significant impacts and would not contribute to cumulative impacts because it does not include habitable structures and would not have people residing at the site. Both the County's April 2016 Tsunami Emergency Response Plan and the state's 2009 Tsunami Inundation Map for the area identify much of the site as susceptible to tsunami runup and damage. Additionally, the County's Hazard Mitigation Plan states specifically that development and infrastructure near the mouth of San Simeon Creek would be **4-29**

[14] The beneficial uses of the San Simeon Creek Estuary include: Ground Water Recharge (GWR), Water Contact Recreation (REC-1), Non-Contact Water Recreation (REC-2), Wildlife Habitat (WILD), Cold Fresh Water Habitat (COLD), Migration of Aquatic Organisms (MIGR), Spawning, Reproduction, and/or Early Development (SPWN), Preservation of Biological Habitats of Special Significance (BIOL), Rare, Threatened, or Endangered Species (RARE), Estuarine Habitat (EST), Commercial and Sport Fishing (COMM) and Shellfish Harvesting (SHELL).

The beneficial uses of San Simeon Creek include: Municipal & Domestic Supply (MUN), Agricultural Supply (AGR), Ground Water Recharge (GWR), Water Contact Recreation (REC-1), Non-Contact Water Recreation (REC-2), Wildlife Habitat (WILD), Cold Fresh Water Habitat (COLD), Warm Fresh Water Habitat (WARM), Migration of Aquatic Organisms (MIGR), Spawning, Reproduction, and/or Early Development (SPWN), Preservation of Biological Habitats of Special Significance (BIOL), Rare, Threatened, or Endangered Species (RARE), Freshwater Replenishment (FRSH) and Commercial and Sport Fishing (COMM).

vulnerable to tsunami hazards.[15] Regarding seiches, the DSEIR states only that the project would not be subject to seiches because it is not near an enclosed body of water. However, seiches occur in rivers and creeks, and the DSEIR ignores the potential for seiches to travel up San Simeon Creek. Regarding flooding, the DSEIR states that just a small part of the project site is within the 100-year floodplain, though we understand the project was damaged in January 2016 during a storm event that caused something less than a 100-year flood, so the project site is demonstrably vulnerable to flooding and those impacts should be analyzed. **4-29**

The County's LCP requires that development such as the proposed project located in coastal hazard areas and tsunami runup zones be located outside of potential inundation areas where feasible, and if not feasible, that they be elevated or otherwise protected from inundation. This is particularly important for a project such as this that is meant to provide a reliable water supply in the face of emergencies and that stores substantial amounts of chemicals on site that could be released during inundation and could damage nearby sensitive waterbodies and habitat areas. We are not aware of the CCSD conducting the required feasibility analysis to determine whether the project could be located outside of this hazardous area or elevated above inundation levels. As we previously requested in our April 2015 comment letter, we recommend the DSEIR be revised to identify the full extent of these hazard areas as they relate to project components and that alternative project designs that minimize potential impacts and damage resulting from these hazards be analyzed. We also recommend, in particular, that the revised document describe all measures that will be included in the proposed project to avoid and respond to potential spills of hazardous chemicals from the project and to avoid and respond to the potential that project components damaged during tsunami, seiche, or flooding events could be transported to, and adversely affect nearby sensitive waterbodies and habitat areas. We also recommend that the project be evaluated for the effects of a 500-year flood, which is the level commonly conducted for hazard or risk assessments on what are considered "critical" facilities. **4-30**

Section 5.6.2 – Land Use – Regulatory Setting, North Coast Area Plan: The DSEIR references a provision of the project's emergency CDP, which states that review of the project pursuant to the required follow-up CDP will be subject to provisions of the North Coast Area Plan Community Wide Policy related to desalination facilities for Cambria. However, the DSEIR contends that the proposed project is not subject to this Policy because the project is outside the Cambria Urban Area and because it "is a groundwater replenishment project – not a desalination facility."

For several reasons, including the following, the project is subject to the referenced policy. First, Community Wide Standard 4C, which provides a broad overview of requirements for any water supply project for Cambria, requires that "the project shall assure that CCSD water withdrawals from Santa Rosa and San Simeon Creeks will be sufficiently limited to protect: (1) adequate instream flows necessary to support species and other riparian/wetland habitats within the reach of the streams affected by CCSD pumping, (2) underlying groundwater aquifers, and (3) agricultural resources." Additionally, the project provides water to, and includes components within, the Cambria Urban Area, and therefore includes development within that area. As defined in the LCP and Coastal Act, "development" includes "discharge... of any... liquid...", "change in the density or intensity of use of land..." and "change in the intensity of use of water, **4-31**

[15] See *San Luis Obispo County and San Luis Obispo Flood Control and Water Conservation District Local Hazard Mitigation Plan*, page 138, December 2014.

or of access thereto…", all of which are integral components of the project within the Cambria Urban Area. Additionally, project operations affect, and are affected by, conditions within the San Simeon watershed but also the Santa Rosa watersheds, which is within the Urban Area boundary – for example, the project's pumping regime will vary based on pumping opportunities and constraints in the Santa Rosa watershed. Further, project development includes proposed mitigation measures within Cambria such as proposed build-out reductions, conservation measures, and others. Finally, the project is not a "groundwater replenishment project," as it withdraws groundwater from the San Simeon watershed rather than replenishes it, though it is a desalination project, as it uses the same technology as other desalination facilities to remove salts and other contaminants from brackish water, seawater, treated wastewater, or groundwater. Therefore, the project is subject to the above-cited Community Wide Policy 4D. We recommend the DSEIR be revised to clarify this issue. **4-31**

Section 6.3 – Growth-Inducing Impacts: The DSEIR concludes that the project would result in relatively limited growth-inducement effects primarily related to those growth elements described in the CCSD's 2008 Water Master Plan or those resulting from economic benefits derived from the project providing improved water supply reliability. We agree that the existing project will likely have limited growth-inducement effects, since it is for existing development and for emergency situations only; however, the proposed project would clearly result in growth-inducing impacts that must be fully evaluated in a revised DSEIR (though, as noted above, there appears to be substantially less water available to the CCSD in the San Simeon watershed than needed for the project to support the proposed additional development in Cambria). The DSEIR references the CCSD's 2008 Master Water Plan EIR as the basis for its conclusion that the proposed project will result in few growth-inducing impacts; however that previous EIR did not adequately evaluate these effects. That 2008 document states, in fact, that a future project specific EIR/EIS would need to determine potential impacts occurring resulting from growth and from other aspects of a proposed water supply project, which the current DSEIR does not do. Additionally, neither the project's proposed 20-year operating life nor the DSEIR's analyses that are based on that 20-year project life are sufficient to support potential new development, since most of that development would require water for far longer than the project is expected to provide it. For example, new residences and commercial developments, which have expected useful lives of about 75 years and 50 years, respectively, would not be able to rely on water provided by this project beyond its expected 20-year operating life – i.e., until about 2036 or 2037. Further, the CCSD expects some of the new development that would rely on water from this project to not be built until 2050,[16] which would be long after the project's expected operating life and well short of the 50 or 75 years of reliable water needed to support such development. **4-32**

We therefore recommend that the DSEIR be revised to acknowledge these limitations on the project's expected growth-inducement. Alternatively, the document could be revised to identify project changes that would be needed to provide the long-term water supply needed to support the CCSD's anticipated growth levels, to assess the impacts resulting from these project changes, and to identify the mitigation measures that would be implemented to avoid or minimize these impacts.

[16] See CCSD *Progress Reports for Proposition 84 Grant* identifying January 1, 2050 as expected time to reach build-out.

Section 7.3 – Alternatives to the Proposed Project – "RO Concentrate Ocean Outfall Disposal" Alternative (and Section 7.4 – "Environmentally Superior" Alternative): The DSEIR describes the potential for disposing of the project's effluent by trucking it to any of 16 existing facilities with permitted ocean outfalls within about 150 miles of the proposed project. It concludes that the proposed discharge alternative would be the "environmentally superior" alternative for the project. However, as described below, the DSEIR does not adequately evaluate components of this alternative that could result in significant adverse effects or could result in all or some elements of this alternative being infeasible. As a result, the DSEIR does not provide adequate support for its conclusion that this alternative is environmentally superior.

Regarding adverse effects, and similar to our comments above on transportation risks, the analyses of this alternative do not adequately evaluate potential adverse effects that would result from spills or releases that occur during transport of the project effluent to any of the 16 proposed locations. Most, if not all, of the transport routes would be along the Pacific Coast Highway adjacent to coastal waters where spills or releases could result in significant adverse effects on coastal resources. We recommend that the DSEIR be revised to include descriptions and evaluations of the likely effects of spills or releases on coastal resources along each of the transport routes. The analyses should include a description of maximum expected volumes of any spills or releases, measures that would be implemented to avoid or reduce the potential for spills or releases, the measures needed to respond to any spills or releases, and the likely impacts of spills or releases on coastal biological resources, public access to the shoreline, and other coastal resources. **4-33**

Regarding feasibility, the DSEIR states that the identified facilities being considered for disposing of the project effluent have permitted ocean outfalls, but it does not identify the relevant permit conditions at these facilities or whether those permits or facilities would need to be modified to accept effluent from the project. All or some of these facilities may have limits on the types, concentrations, or volumes of wastes they can accept or discharge, and they may need to modify their treatment methods or outfall structures to ensure that discharging this project's effluent will meet water quality standards, mixing zone or dilution requirements, and will be otherwise consistent with state and federal water quality standards. The DSEIR should be revised to include sufficient information about these components of the 16 facilities to determine whether they would provide a feasible disposal alternative and what modifications would be required for them to serve as a feasible alternative. **4-34**

Section 8 – Effects Found Not To Be Significant: The DSEIR states that several issue areas are not likely to result in significant adverse effects; however, and as noted in our comments above, we recommend the DSEIR be revised to include full evaluations of the potentially significant adverse effects on coastal resources that may result from project-related traffic and hazardous wastes, including waste storage, potential releases and spills and spill response both onsite and during transport. **4-35**

We additionally recommend the DSEIR be revised to more fully evaluate effects associated with the project's geologic risks. As noted in the DSEIR's Section 8.3 – Geology and Soils, the project site has the potential to experience strong ground shaking and project components could experience liquefaction. The DSEIR concludes these effects would not be significant, yet it does not provide the analyses needed to support that conclusion. For example, regarding seismic events, the DSEIR states that the project is likely to experience at least one moderate to severe **4-36**

earthquake during its operating life, with the accompanying Geotechnical Evaluation conducted for the project identifying a peak ground acceleration at the site of up to 0.52g. The DSEIR states that the project will be built to withstand this type of event, but it does not identify the specific design standards that were used to construct the existing project or those that will be used to ensure the proposed project will be able to withstand this event. Similarly, the Geotechnical Evaluation states that liquefaction is likely (on page 11), though it does not specifically identify expected amounts of settlement or damage that might occur and what design standards or project components may be necessary to avoid or reduce effects of this hazard.

4-36

We recommend the DSEIR be revised to specifically state how the proposed project will be built to resist the expected levels of ground acceleration and liquefaction at the site, and that it include the analyses used to show the facility could withstand the expected forces. We particularly recommend that the document describe how the chemical storage facilities at the site will be constructed to withstand potential geologic and seismic forces and that it provide the analyses used to ensure those events would not result in release or spill of project chemicals.

Conclusion: In sum, we strongly recommend the CCSD substantially revise the DSEIR as described above to ensure the adverse environmental impacts of the existing and proposed projects are fully analyzed, that project alternatives are adequately evaluated, and that the project's cumulative effects are assessed. We would be happy to provide further comments or assistance in modifying the document or in considering alternatives to the project as currently proposed. Again, thank you for the opportunity to comment.

4-37

Sincerely,

Tom Luster

Tom Luster
Senior Environmental Scientist

Cc: National Marine Fisheries Service – Matthew McGoogan
U.S. Fish and Wildlife Service – Lena Chang
U.S. Army Corps of Engineers – Kathleen Anderson
California Department of Fish and Wildlife – Annette Tenneboe
California Department of Parks and Recreation – Doug Barker
San Luis Obispo County – Airlin Singewald

RESPONSE TO COMMENT LETTER NO. PA-4
Tom Luster, Senior Environmental Scientist
California Coastal Commission
October 26, 2016

PA 4-1 The DSEIR addresses a single Project (e.g., the Sustainable Water Facility (SWF)) and as required by CEQA, addresses the Project modifications, which include Mitigation Measures identified to avoid/mitigate potential impacts; see DSEIR Page 3-16 and Mitigation Measures AES-2 and BIO-3. There aren't two versions of the Project. DSEIR Section 3.5, *Project Characteristics*, describes both components equally; see DSEIR Section 3.5.1, *Sustainable Water Facility*, and DSEIR Section 3.5.2, *Mitigation Measures (Project Modifications)*, respectively. The DSEIR does not have as a "main focus" what the comment refers to as the "proposed project," which is assumed to refer to the Mitigation Measures (Project modifications). Rather, the DSEIR focusses equally on both the SWF and Project Modifications.

PA 4-2 This comment notes that the Project is subject to Coastal Development Plan (CDP) review and approval by San Luis Obispo County (SLO County) and California Coastal Commission's (CCC) federal consistency review. This comment also notes documents incorporated by reference. Comments so noted. No further response is necessary.

PA 4-3 This comment recommends substantial revisions to the DSEIR to incorporate additional data, however, does not specify the additional data. Therefore, this comment is so noted and will be considered by the CCSD Board during their deliberations on the Project. This comment also introduces various concerns, which are elaborated in subsequent comments. See Responses PA 4-4 through PA 4-37 below.

PA 4-4 This comment introduces concerns regarding Geology and Soils, Hazards and Hazardous Materials, and Traffic and Transportation, which are elaborated in subsequent comments; see Response PA 4-19 below. As concluded in DSEIR Section 8.0, *Effects Found Not To Be Significant*, the Project would result in less than significant impacts following compliance with the established regulatory framework concerning Geology and Soils, Hazards and Hazardous Materials, and Traffic and Transportation.

PA 4-5 As a function of its existing water and wastewater operations, the CCSD has been monitoring existing groundwater wells in the Project area for decades prior to SWF completion. The two specific items that this comment identifies are level measurements and sampling at existing Monitoring Well (MW) SS-4; and, level measurements and sampling of the San Simeon Creek from the Hearst San Simeon State Park (State Park) San Simeon Creek Campground (SSC Campground) pedestrian

bridge. Each of these existing measurement and sampling locations are within State Parks' property. Access to existing MW SS-4 is by foot and results in no environmental impacts. The pedestrian bridge was constructed by the CCSD during the early 1980s. The pedestrian bridge is within a 25-foot wide easement that State Parks issued to the CCSD in 1977 in exchange for water and wastewater service to the SSC Campground. The pedestrian bridge is used to collect water quality samples by both the CCSD and CCRWQCB. The pedestrian bridge location is also part of the CCRWQCB's Central Coast Ambient Monitoring Program (CCAMP). The installation of remote sensing instrumentation on the pedestrian bridge was subject of a Notice of Exemption (NOE) filed by the CCSD with the SLO County Clerk on August 30, 2016. The CCRWQCB has issued a letter of support for installation of remote sensing instrumentation at the pedestrian bridge. It is the CCSD's contention that such operational monitoring and sampling are not part of the SWF Project, since the proposed installation of remote sensing instrumentation at the pedestrian bridge supports the CCSD's existing water and wastewater operations, as well as the SSC Campground, regardless of whether the SWF existed.

As of the writing of this response, State Parks has not issued a Right of Entry (ROE) Permit for installation of the instrumentation at the pedestrian bridge. Until that the ROW Permit is granted, the CCSD will conduct its monitoring within CCSD property limits, which are east/upstream from the bridge.

Due to access restrictions to State Parks' property, and to reflect the Project modifications, the Adaptive Management Plan (AMP) was updated to reflect that all necessary monitoring would be conducted on the Project site. Therefore, no offsite components are proposed and no revisions to DSEIR Section 3.2.1 are required. The AMP is available for public review at the Cambria Community Services District, 1316 Tamson Drive, Suite 201, Cambria, California 93428.

PA 4-6 This comment introduces various comments concerning available and projected water volumes, which are elaborated in subsequent comments. On December 15, 2016, the CCSD Board adopted an update to its Urban Water Management Plan (2015 UWMP), which included detailed demand modeling for recommended Conservation Program B. Although the 2015 UWMP is exempt from CEQA, the results of this modeling are included within the DSEIR, as a forecasted demand plot; see DSEIR Page 3-5. This plot shows that with Conservation Program B, the annual CCSD demand at build-out is less than approximately 700 acre-feet per year (AFY). In addition, the CCSD is also in the process of licensing its existing diversion permits, which would result in a maximum allowable diversion of 798.82 AFY for the San Simeon Creek aquifer wells, and 217.92 AFY for the Santa Rosa Creek aquifer wells. Because the extracted and highly treated water from the SWF is returned to the aquifer, it is not an additional diversion from the aquifer. The treated and re-injected water from the SWF improves

the reliability of the existing CCSD aquifer supply and is ultimately removed by the CCSD's existing San Simeon aquifer wells. Therefore, the SWF re-injected water would be included within the 798.82 AFY maximum allowable of a licensed San Simeon Creek aquifer diversion. Once licensed, the 798.82 AFY maximum San Simeon Creek aquifer diversion would be approximately 35 percent less than a historically permitted maximum of 1,230 AFY for the San Simeon Creek aquifer wells.

It is also noted that the 205 AF mentioned in this comment concerning the Warren Ranch property is for riparian, agricultural water use, which was the subject of a 2006 Settlement Agreement between Warren and the CCSD. This agreement allows up to 183.5 AFY of agricultural irrigation to be supplied to the Warren property from a CCSD agricultural irrigation well. In addition, 20 AFY is provided by the CCSD's San Simeon potable wells for Warren property fronting San Simeon Creek Road, and 1.5 AFY is provided to a small parcel that was sold by Warren (a former one-room schoolhouse, APN 013-062-005).

It is further noted that per a 1998 USGS Report of the watershed, approximately 30 to 35 percent of riparian irrigation water returns to the aquifer.[2] In addition, the CCSD removed an earlier agricultural irrigation demand of 49.7 AFY[3] within the San Simeon aquifer by facilitating the conversion of prior agricultural property to State Parks land.[4] The 1998 USGS Report also showed approximately 45.1 AF[5] of the 184 AFY included within the Warren settlement agreement as being existing agricultural irrigation demand. Therefore, the net increase resulting from the 205 AFY agreed to within the 2006 Settlement Agreement is approximately 77 AFY more than what was analyzed within the 1998 USGS Report.[6] Should the agricultural water supply from the CCSD to Warren cause a conflict with existing regulations and laws, the 2006 Settlement Agreement includes provisions where the supply to Warren could be further reduced (or stopped if warranted). During calendar year 2016, the following volumes, as described in the Warren Settlement, were actually supplied to Warren by the CCSD:

- 13.5 AFY of the 183.5 AFY;
- 16.7 AFY of the 20 AFY; and,
- 0.8 AFY of the 1.5 AFY.

[2] 1998 USGS Report 98-4061, Table 4, Page 46. As determined by comparing agricultural pumpage against Irrigation return flow.

[3] 1998 USGS Report 98-4061, Table 6, Page 59, field numbers 53 through 57 inclusive.

[4] During 2006, the CCSD facilitated a three-way property exchange that resulted in the old Molinari bean field (the southeastern portion of APN 013-011-016) being owned by State Parks. This same field is now being kept fallow as an undeveloped wetlands.

[5] 1998 USGS Report 98-4061, Table 6, Page 59, field numbers 58, 64, and 92.

[6] Estimated at 70 percent of (205 AFY agricultural demand less 49.7 AFY (fallowed bean field) less 45.1 AFY of pre-existing Warren irrigation demands).

See also Responses PA 4-7 through PA 4-10 below.

PA 4-7 This comment incorrectly describes the re-injected water from the SWF as a diversion and being subject to the CCSD's SWRCB-issued diversion permits. Therefore, the comment incorrectly frames this as an aquifer diversion. Additionally, the diversion from the existing San Simeon Creek aquifer wells cannot exceed 400 gpm whenever the SWF is re-injecting treated water back into the aquifer. Except for a 39 gpm discharge of RO concentrate into the evaporation pond, all of the water extracted by SWF Well 9P7 is returned to the aquifer. The Project Design Feature's (PDF) approximate 100 gpm filtrate product water flow that is discharged to the San Simeon Creek Lagoon does infiltrate to the aquifer below the lagoon, as noted. If run 24 hours per day over a 184-day dry season, the 400 gpm extraction rate by the CCSD's existing San Simeon wells would total 325 AF, and the 39 gpm of RO concentrate discharge to the evaporation pond would total 32 AF. These two values total 357 AF over an assumed 184-day dry period.

The PDF's approximate 100 gpm riparian flow discharged into the upper San Simeon Creek Lagoon area is for habitat protection. It is discharged onto the existing CCSD property that is contiguous with San Simeon Creek, and is not a diversion. DSEIR Appendix E6, *Technical Memorandum – San Simeon Creek Flows*, (TM) (CDM Smith, October 16, 2016) includes an analysis of instream flows, which supports the approximate 100 gpm flow rate. Additionally, DSEIR Appendix E1, *Cambria Emergency Water Supply Project San Simeon Creek Basin Groundwater Modeling Report*, (GMR) (CDM Smith, May 2014) included detailed hydrogeological modeling; see DSEIR Page 5.3-55. The GMR found that while the SWF is operating, the PDF's 100 gpm of filtrate product water flow discharged to the San Simeon Creek Lagoon would maintain water levels in the lagoon, thereby avoiding potential impacts to lagoon habitat; see also DSEIR Impact 5.5-3. Further, the TM concluded that under normal climatic conditions, flows of 50 gpm, which would be one-half of the 100 gpm flow, would be sufficient to maintain lagoon levels similar to conditions without the SWF. The TM also included simulations under extreme drought conditions, comparing the zero (0) gpm, 50 gpm, and 100 gpm flow to conditions without the SWF. During the first year of simulated drought, the 100 gpm flow would maintain lagoon levels similar to conditions without the SWF. During the second year of simulated drought, both the 50 gpm and 100 gpm flows would result in higher lagoon levels than conditions without the SWF. Under extreme drought conditions without the SWF, the CCSD well field would not be capable of producing the permitted quantities, while under conditions with the SWF, production at permitted rates could continue. Based on the GMR's and TM's findings, while the SWF is operating, the PDF's approximate 100 gpm filtrate product water flow to the San Simeon Creek Lagoon would maintain water levels in the lagoon. Notwithstanding, Mitigation Measure BIO-7 requires implementation of an AMP for long-term SWF operations. The AMP is intended to

monitor and protect the lagoon, creek, and riparian habitats and, by extension, protect the species that inhabit them. The AMP's primary goal is to monitor the response of the lagoon, creeks, and riparian habitats to SWF operations. Monitoring is required as part of the AMP to ensure that creek and lagoon levels are maintained during SWF operations. This analysis concluded that the 100 gpm flow provides greater protection to the San Simeon Creek Lagoon area than a no project alternative would offer.

PA 4-8 The Project re-injects highly treated water back into the same aquifer that the Project's extraction well (Well 9P7) is using as source water. This is why a net diversion is described, as opposed to a gross diversion. After travelling at least 60-days underground, the highly treated and re-injected water is extracted by existing CCSD Wells SS-1 and SS-2. Wells SS-1 and SS-2 are subject to a licensed extraction limitation of no more than 798.82 AFY (as compared to 1,230 AFY in earlier permits). See Response PA 4-6 for an additional related discussion.

Extraction at Well 9P7 is further downgradient from the potable well field, and is pumping brackish water. A localized cone of depression at Well 9P7 is being addressed by hydraulic modeling, which is further supported by an AMP. Hydraulic modeling has concluded that the 100 gpm filtrate product water discharged as surface flow to the head of the upper end of the San Simeon Creek Lagoon provides a net benefit to the riparian habitat. TM Figure 7 (DSEIR Appendix E6) provides a convenient summary illustration, which shows the lagoon levels without the Project (blue dashed line) versus with the Project operating with the 100 gpm flow to the lagoon (yellow line). This graph concludes that there is noticeable improvement on the lagoon level (i.e., the graph's vertical axis) with the Project operating and 100 gpm filtrate product water flow being discharged to the lagoon.

The Project's AMP provides additional assurances that there would be less than significant impacts to the riparian corridor and its existing species of concern; see DSEIR Mitigation Measure BIO-7. The Project would also operate during times when there is likely to be no water in the adjacent San Simeon Creek's channel upstream from the San Simeon Creek Lagoon, given that the creek is seasonal. During such times, the AMP would require monitoring for such items as signs of stress in trees closest to the Well 9P7 extraction wells. Should signs of stress in trees ever be observed, adaptations may include moving which pond the CCSD percolates into, to place percolated water closer to the tree drip line and root zone.

PA 4-9 See Responses PA 4-7 and PA 4-8, which address the PDF's approximate 100 gpm filtrate product water flow.

PA 4-10 The 2016 Tracer Study confirmed that the geohydraulic model is accurate. Therefore, the model findings are accurate. The 400 gpm flow rate was agreed to with the

permitting agencies, in order to confirm the model predicted the travel time, not to analyze the permitted flow rate. The model output at 400 gpm predicted the travel time observed during the second tracer study, confirming that the model can be used to demonstrate that operating at 452 gpm while still exceeding the minimum 60 day travel time.

PA 4-11 The facility is required to meet RWQCB permit conditions, regardless of membrane age. Therefore, modifying the DSEIR to account for membrane life would have questionable benefit, since the facility would still need to meet performance criteria required of the permits.

PA 4-12 See Response PA 4-7 concerning the PDF's approximate 100 gpm filtrate product water flow to San Simeon Creek Lagoon. Based on the GMR's and TM's findings, while the SWF is operating, the PDF's approximate 100 gpm filtrate product water flow to the San Simeon Creek Lagoon would maintain water levels in the lagoon, thereby avoiding potential impacts to lagoon habitat. Notwithstanding, Mitigation Measure BIO-7 requires implementation of an AMP for long-term SWF operations. The AMP is intended to monitor and protect the lagoon, creek, and riparian habitats and, by extension, protect the species that inhabit them. The AMP's primary goal is to monitor the response of the lagoon, creeks, and riparian habitats to SWF operations. Monitoring is required as part of the AMP to ensure that creek and lagoon levels are maintained during SWF operations. It is noted, while a perennial section of San Simeon Creek is known to be present upstream of the confluence with Steiner Creek, San Simeon Creek's lower reaches are intermittent and are generally only inundated from late fall to late spring or early summer, which would likely coincide with periods when the SWF would not operate. The U.S. Geological Survey found that the lower reaches of the creek (such as traverse the Project site) flow subterranean during the dry season due to natural dry-season water level decline (i.e., decline without any pumping occurring). Thus, the creek would normally not be inundated during the six dry months of the year when the SWF would operate, discharging approximately 100 gpm of filtrate product water to the lagoon. With implementation of Mitigation Measure BIO-7, the lagoon and creek habitats would be protected. With mitigation, Project impacts to biological resources would be reduced to less than significant.

PA 4-13 See Responses PA 4-7, PA 4-8, and PA 4-12 concerning the PDF's approximate 100 gpm filtrate product water flow to San Simeon Creek Lagoon. The comment suggests that the surface water discharge should occur at a location 0.75 mile upstream from the upstream end of the San Simeon Creek Lagoon to help sustain streamflow and instream refugia for steelhead between the upper San Simeon Creek basin and San Simeon Creek Lagoon.

Stream elevation profiles presented in the GMR were used to define the discharge point for MF filtrate water, which is where the water surface elevation is flat, representing the lagoon, rather than flowing surface water. This point is approximately at the location of the pedestrian bridge. Additionally, the 1988 USGS Report (98-4061) found that no flow is typically observed in San Simeon Creek during the dry season. Therefore, maintaining the levels further upstream as suggested by this comment would not be practical, nor meet natural conditions. See also Responses PA 4-7, PA 4-8, and PA 4-12, which further address the PDF's approximate 100 gpm filtrate product water flow to the upper reach of the San Simeon Creek Lagoon. It is further noted that the commenter's indirect reference to SWRCB Permit 17287 (Condition 16) excludes the following underlined words:

> "16. PERMITTEE SHALL MAINTAIN WATER LEVELS IN THE LOWER BASIN TO SUSTAIN STREAM FLOW TO THE LAGOON *AT THE MOUTH OF SAN SIMEON CREEK* TO MAINTAIN FISH AND RIPARIAN WILDLIFE HABITAT."

In addition, the comment requests that a thorough analysis be conducted into the volume of water and timing of releases that would be required to sustain this upstream area. However, this portion of the creek is generally dry during the time of year when the SWF would be operated; see Response PA 4-12. The SWF would not be operated during the wetter portions of the year, when the creek would have water. Therefore, moving the surface water discharge pipeline to an upstream location that is generally expected to be dry during the time when the 100 gpm filtrate product water flow would not meet the Project's objective concerning the 100 gpm flow to San Simeon Creek Lagoon. Namely, the purpose of the PDF's 100 gpm flow is to recharge potential groundwater extraction-related surface water drawdown within San Simeon Creek Lagoon, which is why the discharge is planned to go directly into the lagoon. Moving the pipeline away from this area would negate the purpose and effectiveness of this PDF. Therefore, moving the discharge point farther upstream where, under natural conditions no flow would be expected at the time of discharge, is not a feasible option.

Further, USGS Report 98-4061's reference to the upper end of a basin (Footnote 4) was taken out of context and confuses the separation of the underground groundwater basin with the extent of surface water.

PA 4-14 Water used to fill the repurposed pond would be within the limitations of the CCSD's licensed diversion permits; see Responses PA 4-6, PA 4-7, and PA 4-8. The repurposed pond would be filled when demands are low, which is typically during January through March. The stored water would then be available for use during times of maximum demand, which are typically during July and August.

PA 4-15 As discussed in DSEIR Section 3.5.2.6, *Offsite RO Concentrate Disposal*, concentrate from the RO treatment process would be hauled away to a disposal site, such as the Kettleman Hills Hazardous Waste Facility (Kettleman Hills). While two operational scenarios are discussed, as stated on DSEIR Page 3-64, for purposes of conducting a conservative analysis of the Project's potential environmental impacts associated with offsite RO concentrate disposal (i.e., mobile emissions, transportation, etc.), this SEIR assumes the SWF would operate 24/7 for six months per year, and the RO concentrate would be hauled away to Kettleman Hills for disposal. Therefore, all Project impact analyses assume the SWF would run for 24 hours per day seven days per week (24/7), during the driest time of the year (approximately six months). Under this scenario, ten truck trips per day (limited to operating within the SWF site between the hours of 7:00 AM and 7:00 PM) would be needed to haul the RO concentrate to Kettleman Hills, assuming a 6,000 gallon truck would be used. Since DSEIR release, the CCSD has confirmed that RO concentrate disposal could occur much closer. On February 22, 2017, the South SLO County Sanitation District (South-SLO SD) issued the CCSD a Brine Disposal Permit, which authorizes the CCSD to discharge the RO concentrate (salt brine) to the South-SLO SD's existing turn-out structure pipeline connection, pursuant to various permit conditions. The Brine Disposal Permit specifies the CCSD would utilize trucks to deliver RO concentrate (brine) to the South-SLO SD for disposal. Use of the South-SLO SD facility's existing permitted disposal system would result in fewer impacts than the worst-case, conservative analysis presented in the DSEIR; see also DSEIR Section 7.3, *"RO Concentrate Ocean Outfall Disposal" Alternative*, and Responses PA 4-33 and PA 4-34, concerning the RO Concentrate Ocean Outfall Disposal Alternative.

The Project proposes to discharge 39 gpm of RO concentrate, wastewater from the analytical instruments, and membrane cleaning waste to the evaporation pond. The CCRWQCB classifies the RO concentrate as a Title 27 nonhazardous waste; specifically, the RO is classified a Special Waste. Notwithstanding, potential Project impacts associated with the routine transport, use, and disposal of hazardous materials are evaluated in DSEIR Section 8.5, *Hazards and Hazardous Materials*. All proposed transport activities would be required to follow federal and state laws and regulations regarding the transport of hazardous materials. Hauling would be accomplished by having a fill station designed with a perimeter berm to capture any water that could inadvertently spill during a fill operation. The truck hauling the water would be fitted with sealed hatches, as well as internal baffles to further prevent sloshing and spilling. The truck driver would be equipped with conventional clay litter or other absorbent material, which could be spread and used for shoveling incidental spillage into a trash barrel. The unloading station would be similarly bermed as the fill station, to prevent and contain any spillage during unloading. The hauling driver and haul truck would be licensed and credentialed to meet applicable local and State requirements. Transportation of all hazardous materials to/from the

site is also subject to compliance with all applicable Caltrans protocols. Therefore, compliance with the regulatory requirements ensures that the Project does not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. A less than significant impact would occur in this regard.

PA 4-16 The USGS Report reference to the upper end of the lower basin (Comment 4-13, Footnote 4) was taken out of context, and is confusing the separation of the underground groundwater basin with the extent of surface water. Operations to date under the E-CDP found that the current discharge location is reasonably close to the upper extent of the San Simeon Creek Lagoon surface water during dry weather. The intent is to introduce the PDF's product water as surface water into the upper lagoon to maximize its effectiveness in maintaining the lagoon's surface water elevation. See Response PA 4-13 concerning relocating the lagoon surface discharge extension 0.75 miles upstream.

PA 4-17 See also Responses PA 4-7, PA 4-8, and PA 4-12, which further address the PDF's approximate 100 gpm filtrate product water flow to the upper reach of the San Simeon Creek Lagoon and the Project's AMP. As concluded in the DSEIR, with mitigation, Project impacts to biological resources would be reduced to less than significant. As discussed in Response PA 3-6, Mitigation Measure BIO-18 requires that the CCSD comply with all applicable local, state, and federal regulations concerning impacts to riparian habitat, including Clean Water Act (CWA) Sections 401 and 404, and/or CDFW Code §1602. This comment also introduces concerns regarding potential "take" of listed species, which are elaborated in subsequent comments. See Responses PA 4-18 through PA 4-20 below.

This comment requests clarification concerning which public agencies whose approval would be required. Although, the Project would not require a permit from the NMFS, the agency has been added to the list. DSEIR Page 3-70 is revised in the FSEIR as follows:

Other public agencies whose approval may be required include the following:

- San Luis Obispo County Air Pollution Control District (Rule 202 Permits);
- Central Coast Regional Water Quality Control Board (CCRWQCB);
- Surface Water Discharges and Title 27 Evaporation Pond Compliance;
- CCRWQCB, Division of Drinking Water;
- Title 22 –Indirect Potable Reuse of Recycled Water compliance;
- California Department of Fish and Wildlife;
- California Department of Parks and Recreation;

- California Coastal Commission; ~~and~~
- U.S. Fish and Wildlife Service;
- U.S. Army Corps of Engineers; and
- National Marine Fisheries Service.

In addition, this comment requests that the DSEIR be revised to identify the mitigation measures required to avoid take of steelhead or other listed species and protect riparian and wetland functions. These mitigation measures are already identified on DSEIR Pages 5.3-69, 5.3-70, 5.3-71, 5.3-72, and 5.3-76.

PA 4-18 The commentator references the 2013 National Marine Fisheries Service's South-Central California Steelhead Recovery Plan (Recovery Plan) and suggests that it be included in DSEIR Table 4-1, *Cumulative Projects List*, which is comprised of the related SLO County projects that could potentially produce cumulative impacts; see DSEIR Exhibit 4-1, *Cumulative Projects*. The commentator also recommends revisions to include a comprehensive assessment of Project impacts, as they relate to relevant Recovery Plan components. As discussed on DSEIR Page 4-3, the SLO County Department of Planning and Building was consulted, in an effort to develop a cumulative projects list. SLO County provided a list of 270 relevant projects and a map illustrating their locations throughout the County.[7] The factors considered when determining whether to include a related project involved the nature of each environmental resource being examined, the location of the project, and its type.

The Recovery Plan's goal is to prevent the extinction of South-Central California Coast steelhead (*Oncorhynchus mykiss*) in the wild and ensure the long-term persistence of viable, self-sustaining, populations of steelhead distributed across the South-Central California Coast Steelhead (SCCCS) Distinct Population Segment (DPS).[8] Recovery Plan Section 12.4 cites the following threats for San Simeon Creek: groundwater extraction; severe stream incision (caused by confinement of the active channel due to the encroachment of agriculture on the floodplain); cattle grazing within the active channel; and, the presence of ranch houses and the main road through the watershed. Other information within Recovery Plan Section 12.4 are no longer being pursued, such as construction of a desalination project with withdrawals along Santa Rosa Creek. Recovery Plan Table 12-2 (see below) provides a visual, color-coded ranking of threats.

[7] Written Communication: Singewald, Airlin, Senior Planner San Luis Obispo County Department of Planning and Building, May 14, 2015.

[8] National Marine Fisheries Service. 2013. *South-Central California Coast Steelhead Recovery Plan*. West Coast Region, California Coastal Area Office, Long Beach, California.

San Luis Obispo Terrace Biogeographic Population Gro

Table 12-2. Threat source rankings in the San Luis Obispo Terrace BPG (see CAP Workbooks for individual watersheds for details).

THREAT SOURCES	San Luis Obispo BPG Component Watersheds (north to south)											
	San Carpoforo Creek*	Arroyo de la Cruz*	Little Pico Creek*	Pico Creek	San Simeon Creek	Santa Rosa Creek	Morro Creek	Chorro Creek	Los Osos Creek	San Luis Obispo Creek	Pismo Creek	Arroyo Grande Creek
Agricultural Development												
Groundwater Extraction												
Dams and Surface Water Diversions												
Levees and Channelization												
Culverts and Road Crossings (Other Passage Barriers)												
Urban Development												
Roads												
Recreational Facilities												
Urban Effluents												
Agricultural Effluents												

Key: Threat cell colors represent threat rating from CAP Workbook: Red = Very High threat; Light green = Medium threat; Yellow = High threat; Dark green = Low threa

The five highest threats for the San Simeon Creek are agricultural development, groundwater extraction, levees and channelization, roads, and recreational facilities. See Responses PA 4-6, PA 4-7, and PA 4-8, which address the PDF's approximate 100 gpm filtrate product water flow to the upper reach of the San Simeon Creek Lagoon and how the Project is not increasing groundwater extraction. The Project does not include features associated with the other four high-level threats.

The Recovery Plan was not identified as a cumulative Project, since the Project's potential impacts concerning the Recovery Plan (analyzed in DSEIR Pages 5.3-60 through 5.3-61) were concluded to be less than significant and localized, thus, would not be capable of combining with the broader Recovery Plan or conflicting with its objectives. Overall, Project impacts were not determined to be considerable when viewed in connection with the Recovery Plan's impacts. The Recovery Plan is a non-regulatory, guidance document intended to promote the full recovery of a listed species, which would be beneficial impacts the Project would not conflict with. Additionally, the PDF's approximate 100 gpm filtrate product water flow is discharged to the upper end of the San Simeon Creek Lagoon, which is described within the TM (DSEIR Appendix E6). This PDF's beneficial impact is further described in Responses PA 4-7 and PA 4-8. In addition, Mitigation Measure BIO-7

requires an AMP with monitoring to further ensure there would be no taking of listed species associated with SWF operations. The beneficial impacts of the PDF's approximate 100 gpm flow to the lagoon and AMP monitoring avoid any take of listed species. Therefore, the DSEIR should not require a comprehensive assessment, as the comment suggests.

The commenter also specifically references the need for an assessment of whether Project impacts on streamflow and the aquifer resulting from groundwater extraction would result in a take and also the adequacy of the PDF's approximate 100 gpm filtrate product water flow. See DSEIR Pages 5.3-60 and 5.3-61, and Responses PA 4-7 and PA 4-12 concerning the PDF's approximate 100 gpm filtrate product water flow to San Simeon Creek Lagoon and the Project's AMP. The GMR and TM conclude that while the SWF is operating, the PDF's approximate 100 gpm water flow to the San Simeon Creek Lagoon would be adequate to maintain lagoon water levels and sufficient to protect critical habitat and avoid adverse impacts to steelhead. The AMP (Mitigation Measure BIO-7) is specifically intended to monitor the response of the lagoon, creeks, and riparian habitat to Project operations and would be used to carefully monitor stream flows and the lagoon water level to detect potentially adverse effects on creek and lagoon habitat (and therefore on steelhead), which would require Project MF filtrate flow rate adjustments, modifying the use of production wells, Project shutdown and consultation with regulatory agencies. The GMR and TM indicate that the Project would provide ample MF filtrate flow to ensure suitable habitat for steelhead. The AMP is intended to ensure that, even during dry periods, surface water in San Simeon Creek would not dry up faster than under existing conditions, thus enhancing steelhead runs.

PA 4-19 See Response PA 4-15 and DSEIR Section 8.5 concerning potential Project impacts associated with the routine transport, use, and disposal of hazardous materials. DSEIR Section 8.5 acknowledges the Project would involve chemical use, generate RO concentrate, and require the routine transport of these materials. A less than significant impact would occur in this regard following compliance with the established regulatory framework. No mitigation is required.

PA 4-20 The comment states that the Project site is located within designated Critical Habitat for four listed species (Central Coast steelhead, tidewater goby, California red-legged frog, and Western snowy plover) and that the DSEIR does not evaluate the Project's effects on these species and their habitats. The Project's effects on Central Coast steelhead, tidewater goby, and California red-legged frog and their habitats are discussed in detail in DSEIR Section 5.3.5, *[Biological Resources] Impacts and Mitigation Measures*.

As discussed on DSEIR Page 5.3-23, Western snowy plover Critical Habitat Unit CA-26 is located offsite along San Simeon State Beach and encompasses most of San

Simeon Creek Lagoon downstream (west) of SR-1. This area includes sandy beach above and below the high-tide line (PCE 1) with occasional surf-cast wrack supporting small invertebrates and generally barren to sparsely vegetated terrain (PCEs 2 and 3). It is an important wintering area where up to 143 snowy plovers have been recorded in a single season (at the time of Critical Habitat designation in 2012). This area includes a portion of the lagoon, which is partially located onsite; however, the occupied habitat of this species occurs in sandy areas, which are offsite. Therefore, the Project would not impact Western snowy plover or its habitat. No further analysis is necessary.

To further clarify potential impacts to tidewater gobies, DSEIR Page 5.3-54 is revised in the FSEIR as follows:

Indirect operational impacts to tidewater goby could occur as the result of pumping 629 gpm of groundwater upstream of San Simeon Creek ~~Lagoon~~ at Well 9P7, which is located at the CCSD's treated wastewater effluent percolation ponds. If the SWF were to lower the lagoon water level during its dry period operation, it could result in a premature sandbar closure at San Simeon Creek Lagoon. This could reduce the amount of habitat for tidewater goby found in the lagoon. Unexpected habitat loss from groundwater drawdown could result in decreased food and shelter for tidewater gobies, resulting in increased competition for resources not just between tidewater gobies, but between gobies and other fish species that may be present in the lagoon. Adverse effects to tidewater goby could result in a take of this listed species; any such take would require either exemption from the prohibition against take or take authorization. ~~However, the SWF returns 100 gpm to the San Simeon Creek Lagoon and 452 gpm are re-injected into the San Simeon Creek aquifer further up-gradient at the well field (a minor flow of 37 gpm of MF backwash water enters one of the percolation ponds and 39 gpm of RO concentrate is discharged in the evaporation pond).~~ However, San Simeon Creek Lagoon would continue to provide tidewater goby a persistent, shallow lagoon containing soft substrate suitable for the construction of burrows for reproduction (PCE 1a) that also has submerged and emergent aquatic vegetation that provides protection from predators and high flow events (PCE 1b). The SWF includes a Project design feature that provides approximately 100 gpm of riparian water flow to the head of the San Simeon Creek Lagoon, which would maintain lagoon water levels. The SWF is also limited in how it operates in order to maintain a 60-day underground travel time between the re-injection well and existing CCSD potable wells (Wells SS1 and SS2). To maintain this minimum travel time, the maximum Well SS1 and Well SS2 extraction rates cannot exceed 400 gpm collectively. Additionally, detailed hydraulic modeling found that approximately 40 percent of the water re-injected by the SWF stays within the aquifer and either returns to the subterranean creek channel or recycles back to extraction Well 9P7. Other SWF sidestreams include approximately 39 gpm of RO concentrate and membrane cleaning waste that is diverted to the evaporation pond or will otherwise enter above-ground storage tanks for offsite disposal (as part of a proposed Project modifications).

Certain minor Project sidestreams (e.g., approximately 37 gpm of automatic strainer backwash and MF backwash) re-enter the groundwater basin through an existing percolation pond. Mitigation Measure BIO-3 requires that the filtrate pipeline be extended to relocate the discharge point further south to the San Simeon Creek bank to more efficiently deliver surface water into San Simeon Creek to maintain water levels at San Simeon Creek Lagoon, while also addressing its potential interference with water samples pulled from existing monitoring well 16D1. The GMR (see Appendix E1) included detailed hydrogeological modeling and found that the 100 gpm of ~~mitigation~~ MF filtrate water to the lagoon while the SWF is operating would maintain water levels in the lagoon, thereby avoiding potential impacts to the lagoon habitat; refer to Impact 5.5-3. Further, the Technical Memorandum concluded that under normal climatic conditions, flows of 50 gpm, which would be one-half of the proposed 100 gpm ~~mitigation~~ flow, would be sufficient to maintain lagoon levels similar to conditions without the SWF. The Technical Memorandum (see Appendix E6) also included simulations under extreme drought conditions, comparing the zero (0) gpm, 50 gpm, and 100 gpm ~~mitigation~~ flow to conditions without the SWF. During the first year of simulated drought, the 100 gpm ~~mitigation~~ flow would maintain lagoon levels similar to conditions without the SWF. During the second year of simulated drought, both the 50 gpm and 100 gpm ~~mitigation~~ flows would result in higher lagoon levels than conditions without the SWF. Under extreme drought conditions without the SWF, the CCSD well field would not be capable of producing the permitted quantities, while under conditions with the SWF, production at permitted rates could continue. Based on the GMR's and Technical Memorandum's findings, the 100 gpm ~~mitigation~~ flow to the lagoon while the SWF is operating would maintain water levels in the lagoon. Notwithstanding, Mitigation Measure BIO-7 requires implementation of an Adaptive Management Program (AMP) for long-term SWF operations. The AMP is intended to monitor and protect the lagoon, creek, and riparian habitats and, by extension, protect the species that inhabit them (including the tidewater goby). The AMP's primary goal is to monitor the response of the lagoon, creeks, and riparian habitats to SWF operations. Monitoring is required as part of the AMP to ensure that creek and lagoon levels are maintained during SWF operations. It is noted, while a perennial section of San Simeon Creek is known to be present upstream of the confluence with Steiner Creek, San Simeon Creek's lower reaches are intermittent and are generally only inundated from late fall to late spring or early summer, which would likely coincide with periods when the SWF would not operate. The U.S. Geological Survey has found that the lower reaches of the creek (such as traverse the Project site) flow subterranean during the dry season due to natural dry-season water level decline (i.e., decline without any pumping occurring). Thus, the creek would normally not be inundated during the six dry months of the year when the SWF would operate, discharging 100 gpm of ~~lagoon~~ MF filtrate water. With implementation of Mitigation Measure BIO-7, the lagoon and creek habitats would be protected, and by extension, the tidewater goby that inhabit them, as well. With mitigation, impacts to tide water goby would be reduced to less than significant.

To further clarify potential impacts to California red-legged frog designated Critical Habitat, DSEIR Page 5.3-63 is revised in the FSEIR as follows:

Although the waste stream constituents are considered non-hazardous (see Section 8.0, *Effects Found Not To Be Significant*), CRLF could be attracted to the evaporation pond due to the presence of standing water and adversely impacted by the RO concentrate's hypersalinity. The SWF employs deterrent and exclusion methods to prohibit CRLF entry into the evaporation pond area. The four-foot high CRLF exclusion fence installed along the evaporation pond's perimeter prevents CRLF, as well as various other terrestrial wildlife, from entry into the evaporation pond area. Additionally, the climber barrier and HDPE matrix prevent CRLF from being trapped within the fence. Further, Mitigation Measure AES-2 requires removal of the mechanical spray evaporators and their enclosures, and as a result, the RO concentrate would be disposed of offsite; see *Project Modifications* discussion that follows. Given that the exclusionary fence would prohibit CRLF entry to the evaporation pond, and since the evaporation pond would no longer be used to store RO concentrate, but rather would be repurposed as a ~~potable~~ raw water ~~supply~~ storage basin, the SWF would result in less than significant impacts in this regard.

Indirect operational impacts could occur, particularly if reductions in the water table result in earlier-than-average seasonal drops in creek surface water. In San Simeon Creek, because CRLF can breed as late as late April, early drops in water levels could possibly affect the ability of CRLF eggs to hatch. CRLF typically attaches its eggs to floating vegetation or vegetation rooted in the creek substrate; drops in the water level could cause egg masses to desiccate. Tadpoles in turn could be lost if the creek dries too quickly, or increased competition for food from fish (such as stranded smolts) could result in tadpoles being subjected to increased predation. Project implementation could also have related impacts on California red-legged frog designated Critical Habitat. The area surrounding the Project site, including San Simeon Creek, San Simeon Creek Lagoon, Van Gordon Creek, and other upland areas, provides aquatic habitat that is suitable for both breeding (PCE 1) and non-breeding (PCE 2) by California red-legged frog, as well as upland habitat that could be used for foraging (PCE 3) and dispersal (PCE 4). Groundwater extraction may result in surface water drawdowns that could adversely modify Critical Habitat to by reducing water levels and affecting the availability of breeding areas, PCE 1. This could cause the frogs to concentrate into smaller areas during the breeding season, or cause them to leave the creek and look for breeding or non-breeding habitat elsewhere. Non-breeding habitat and upland habitat are unlikely to be adversely modified. Adverse effects to ~~steelhead~~ California red-legged frog could result in a take of this listed species; any such take would require either exemption from the prohibition against take or take authorization. However, the SWF returns approximately 100 gpm (as deemed necessary by the Project's AMP; see Mitigation Measure BIO-7) of filtrate product water to the San Simeon Creek Lagoon and approximately 452 gpm are re-injected into the San Simeon Creek aquifer further up-gradient at the well field. Mitigation Measure BIO-3 requires that the filtrate

pipeline be extended to relocate the discharge point further south to the San Simeon Creek bank to more efficiently deliver surface water into San Simeon Creek to maintain water levels at San Simeon Creek Lagoon. The GMR and San Simeon Creek Flows Technical Memorandum (Appendices E-1 and E-6) included detailed hydrogeological modeling and found that, when the SWF is operating, the 100 gpm of ~~sidestream~~ MF filtrate flow being provided ~~mitigation water~~ to the lagoon would maintain lagoon water levels, thereby avoiding potential impacts to the CRLF habitat. Further, the Technical Memorandum concluded that under normal climatic conditions, flows of 50 gpm, which would be one-half of the proposed 100 gpm ~~mitigation~~ flow to the lagoon, would be sufficient to maintain lagoon levels ~~similar to conditions without the SWF~~, while the SWF is operating. Based on the GMR's and Technical Memorandum's findings, the Project's design feature of providing approximately 100 gpm of ~~mitigation~~ flow to the lagoon while the SWF is operating and Mitigation Measure BIO-7 would maintain water levels in the San Simeon Creek Lagoon. Notwithstanding, monitoring would be required as part of the AMP (Mitigation Measure BIO-7) to ensure that creek/lagoon levels are maintained during SWF operations. With implementation of the AMP (Mitigation Measure BIO-7), the lagoon, creek, and riparian habitats would be protected, and by extension, the CRLF that inhabit them, as well. The U.S. Geological Survey has found that the lower reaches of the creek (such as traverse the Project site) flow subterranean during the dry season due to natural dry-season water level decline (i.e., decline without any pumping occurring). Thus, the creek would normally not be inundated during the six dry months of the year when the SWF would operate, discharging 100 gpm of ~~mitigation~~ MF filtrate water. With mitigation, impacts to CRLF would be reduced to less than significant.

PA 4-21 Consistency with local policies and ordinances, including the Coastal Zone Land Use Ordinance (CZLUO) and the Local Coastal Program (LCP) is evaluated under DSEIR Impact 5.3-5, *Consistency With Local Policies/ Ordinances – CZLUO & LCP*.; see DSEIR Page 5.3-87. As discussed, the LCP was implemented and approved to ensure the protection of SLO County's Coastal Zone in compliance with the Coastal Act of 1976. CZLUO §23.01.033 (Consistency with the Land Use Element and Local Coastal Plan Required) specifies that when an application is accepted for processing, such application shall not be approved unless, among other requirements, the proposed use or division satisfies LCP policies, programs, and standards. According to CZLUO §23.01.010 (Title and Purpose), the CZLUO is intended (in part) to implement the SLO County LCP (as well as the SLO County General Plan). Coastal streams, riparian areas, and wetlands, such as are present on the Project site, are ESHA, which are protected through compliance with CZLUO §23.07.170 (Environmentally Sensitive Habitats), CZLUO §23.07.172 (Wetlands), and CZLUO §23.07.174 (Streams and Riparian Vegetation). As concluded under DSEIR Impact 5.3-5, the SWF and Project modifications are in compliance with the CZLUO, which implements the relevant LCP Policies. In compliance with CZLUO §23.01.033, the Project satisfies LCP policies, programs, and standards; see also DSEIR Table 5.6-1, *Coastal Act and Local Coastal Plan*

Policy Consistency, and DSEIR Table 5.6-3, *LCP Consistency Analysis*. Therefore, the Project would not conflict with any local policies or ordinances protecting biological resources and a less than significant impact would occur in this regard.

PA 4-22 See Response PA 4-7 concerning the PDF's approximate 100 gpm filtrate product water flow to San Simeon Creek Lagoon. To further clarify potential Project impacts, DSEIR Page 5.3-58 is revised in the FSEIR as follows:

Indirect operational impacts could occur, particularly if reductions in the water table result in earlier-than-average seasonal drops in creek surface water. Adult steelhead typically migrate from the ocean into coastal streams between December and May, according to weather patterns and stream flow. On the other hand, smolts typically migrate downstream to lagoons and eventually the ocean between March and June, although low stream flows can block smolts from reaching their destinations. Reduced water in the lower reaches of San Simeon Creek could lead to earlier-than-usual sandbar closures in San Simeon Creek Lagoon, affecting the ability of smolts to migrate to the ocean and prematurely altering the lagoon/estuary temporal interchange. This may result in smolts becoming stranded in San Simeon Creek Lagoon and spending an extra year in the lagoon instead of at sea. Stranded smolts would suffer from increased competition in the lagoon habitat, particularly as upstream areas within San Simeon Creek dry up and leave only an isolated portion of the creek and lagoon. Adverse effects to steelhead could result in a take of this listed species; any such take would require either exemption from the prohibition against take or take authorization. However, the SWF Project design feature returns approximately 100 gpm of MF filtrate flow (as deemed necessary by the Project's AMP; see Mitigation Measure BIO-7) to the San Simeon Creek Lagoon and approximately 452 gpm are re-injected into the San Simeon Creek aquifer further up-gradient at the well field. Mitigation Measure BIO-3 requires that the filtrate pipeline be extended to relocate the discharge point further south to the San Simeon Creek bank to more efficiently deliver surface water into San Simeon Creek to maintain water levels at San Simeon Creek Lagoon, as discussed above. The GMR included detailed hydrogeological modeling and found that while the SWF is operating, the Project design feature's approximate 100 gpm of ~~mitigation~~ MF filtrate product water would maintain water levels in the lagoon, thereby avoiding potential impacts to steelhead habitat; ~~refer to~~ see Impact 5.5-3. Further, the Technical Memorandum concluded that under normal climatic conditions, flows of 50 gpm, which would be one-half of the ~~proposed~~ 100 gpm ~~mitigation~~ flow, would be sufficient to maintain lagoon levels similar to conditions without the SWF. Based on the GMR's and Technical Memorandum's findings, while the SWF is operating, the Project design feature's approximate 100 gpm ~~mitigation~~ of filtrate product water flow to the San Simeon Creek Lłgoon would maintain water levels in the lagoon. Notwithstanding, Mitigation Measure BIO-7 requires implementation of an AMP for long-term SWF operations. Monitoring would be required as part of the AMP to ensure that creek/lagoon levels are maintained during SWF operations. With implementation of the AMP (Mitigation Measure BIO-7), the lagoon and creek habitats

would be protected, and by extension, the steelhead that may inhabit them, as well. Additionally, Mitigation Measure BIO-15 requires that the CCSD continue with its existing efforts to monitor the creek habitat adjacent to, and downstream from the Project area, as required by the AMP, and specifies provisions, in the event migrating steelhead reappear within the San Simeon Creek. It is noted, San Simeon Creek's lower reaches are intermittent and are generally only inundated from late fall to late spring or early summer, which would likely coincide with periods when the SWF would not operate. The U.S. Geological Survey has found that the lower reaches of the creek (such as traverse the Project site) flow subterranean during the dry season due to natural dry-season water level decline (i.e., decline without any pumping occurring). Thus, the creek would normally not be inundated during the six dry months of the year when the SWF would operate, discharging 100 gpm of ~~mitigation~~ MF filtrate water. Therefore, with mitigation, impacts to steelhead would be reduced to less than significant.

This comment also states that the DSEIR "does not fully acknowledge the designation…of the lower San Simeon watershed as listed critical habitat" for steelhead. See DSEIR Section 5.3, *Critical Habitat*, (DSEIR Page 5.3-22) concerning designated Critical Habitat on the Project site. DSEIR Section 5.3 states that the Project site contains designated steelhead Critical Habitat, which runs for approximately 5.5 miles upstream from the shoreline.

To further clarify potential impacts to designated steelhead Critical Habitat, DSEIR Page 5.3-22 is revised in the FSEIR as follows:

South-central California Coast steelhead Critical Habitat is located within the Estero Bay Hydrologic Unit and includes an approximately 5.5-mile stretch of San Simeon Creek beginning downstream of the North Fork/South Fork San Simeon Creek convergence and ending at the ocean. ~~The lower reaches of San Simeon Creek flow intermittently, and are dry during the summer dry season, except for the lower San Simeon Creek Lagoon, which may have some hydraulic connectivity with the groundwater table where surface water occurs in the vicinity of the Hearst San Simeon State Park (State Park) San Simeon Creek Campground and San Simeon State Beach area. Past study of the area by the U.S. Geological Survey has found that the lower reaches of the creek flow subterranean during the dry season due to natural dry season water level decline (i.e., decline without any pumping occurring). Upper reaches of San Simeon Creek do have some perennial flow occurring, but these reaches are about three miles further up gradient from the Project site, at a higher elevation, and are beyond any area that may be influenced by the Project. Therefore, the primary reach of concern that could be indirectly affected by Project implementation is the lower reach area, which would include the San Simeon Creek Lagoon.~~ This 5.5-mile stretch of San Simeon Creek includes water of sufficient quantity and quality to support steelhead, as well as habitat

specifically suitable to support freshwater spawning sites (PCE 1), freshwater rearing sites with adequate forage and refuge opportunities to support juvenile growth (PCE 2), unobstructed freshwater migration corridors with adequate refugia to support upstream and downstream movement (PCE 3), and an unobstructed estuary (seasonally) with adequate forage and refuge opportunities to support juvenile and adult transitions between saltwater and freshwater habitats (PCE 4).

This comment also states that the DSEIR implies that suitable steelhead habitat is only present in upper, perennial reaches of San Simeon Creek, and not in the lower reaches near the Project site; see DSEIR Section 5.3, *Steelhead (South/Central California Coast DPS)* (DSEIR Page 5.3-21) concerning site suitability for steelhead. Despite the DSEIR Appendix E6 statement (quoted in a footnote at the bottom of the comment letter), the DSEIR does not imply/state that the site does not contain suitable steelhead habitat or that only portions of the site contain suitable steelhead habitat. The DSEIR does state that steelhead have been historically recorded throughout San Simeon Creek and San Simeon Creek Lagoon, that they have been historically planted in the watershed to increase species numbers. Despite a lack of detections during the general habitat assessment and focused tidewater goby surveys, steelhead have a high potential to occur during the wet season and are assumed present as the basis for the impact analysis, even without any positive survey results, throughout San Simeon Creek, San Simeon Creek Lagoon, and Van Gordon Creek where water is present.

PA 4-23 This comment states that the DSEIR does not adequately address how the Project would acknowledge and incorporate "Critical Recovery Actions" that are listed in the Recovery Plan. To further clarify Critical Recovery Actions, DSEIR Page 5.3-60 is revised in the FSEIR as follows:

South-Central California Steelhead Recovery Plan

The South-Central California Steelhead Recovery Plan (Recovery Plan) (NMFS 2013) identifies the San Simeon Creek steelhead population as one of the Core 1, or highest priority, populations of this subspecies for recovery. As stated in the Recovery Plan, groundwater extraction is one of the current threats to the stream and riparian corridor. Further, according to the Recovery Plan, the following constitute the "Critical Recovery Actions" for steelhead in San Simeon Creek:

Develop and implement operating criteria to ensure the pattern and magnitude of groundwater extractions and water releases, including bypass flows around diversions, provide the essential habitat functions to support the life history and habitat requirements of adult and juvenile steelhead. Remove or modify instream fish passage impediments to allow steelhead natural rates

of migration to upstream spawning and rearing habitats, and passage of smolts and kelts downstream to the estuary and ocean. Manage instream mining to minimize impacts to migration, spawning and rearing habitat. Identify, protect, and where necessary, restore estuarine rearing habitat, including management of artificial sandbar breeching at the river's mouth, and upstream freshwater spawning and rearing habitats.

SUSTAINABLE WATER FACILITY

SWF operations, without the project's lagoon water supply design feature and mitigation, could affect several of the Critical Recovery Actions listed in the Steelhead Recovery Plan: the ability to develop and implement operating criteria for groundwater extractions and water releases; the ability to provide essential habitat functions for adult and juvenile steelhead; and the ability to protect estuarine rearing habitat. Without mitigation, Project implementation could negatively affect all three of the Critical Recovery Actions, which are all ultimately related to groundwater/surface water availability. Project implementation would involve groundwater extractions during the SWF's operating period which, without mitigation, could adversely affect essential habitat functions supporting adult and juvenile steelhead including spawning and rearing, the availability of forage and refugia within San Simeon Creek. Reductions in adequate forage and refuge sites within the creek could have both short- and long-term effects on the local steelhead population in San Simeon Creek, resulting not only in increased competition for resources but also increased competition for water. Similarly, groundwater extractions could lower water levels in San Simeon Creek Lagoon, which provides estuarine habitat when the sandbar is breached; however, the sandbar has not been breached for several years, likely due to the drought conditions. Adverse impacts to the lagoon/estuarine habitat could affect the ability of steelhead smolt, to continually grow, and mature before swimming out to sea, or contrarily affect the ability of steelhead adults to replenish and rest after leaving the ocean and before swimming upstream to spawning habitat. Instream fish passage impediments and instream mining are not present in the creek within or adjacent to the Project site, and would not be affected by Project implementation. The amount of ~~surface water~~ MF filtrate flow that is returned to San Simeon Creek Lagoon would be ~~a minimum of~~ approximately 100 gpm, but this would be adaptable~~, up to 150 gpm through the AMP~~ as deemed necessary by the Project's AMP; see Mitigation Measure BIO-7. Mitigation Measure BIO-3 requires that the 4-inch diameter lagoon water pipeline be extended to relocate the discharge point further south to the San Simeon Creek bank to more efficiently deliver surface water into San Simeon Creek to maintain water levels at San Simeon Creek Lagoon. As discussed above, the GMR and Technical Memorandum (SEIR Appendices E1 and E6) included detailed hydrogeological modeling and found that, while the SWF is operating, the Project design feature's 100 gpm of filtrate product water flow discharged to the lagoon would maintain water levels in the lagoon, thereby avoiding potential impacts to steelhead habitat. Further, the Technical Memorandum concluded that under normal climatic conditions, flows of 50 gpm, which would be one-half of the ~~proposed~~ 100 gpm ~~mitigation~~ flow, would be sufficient to maintain lagoon levels similar to conditions without the SWF. Based on the GMR's

and Technical Memorandum's findings, while the SWF is operating, the Project design feature's approximate 100 gpm filtrate product water ~~mitigation~~ flow to the lagoon would maintain water levels in the lagoon. Mitigation Measure BIO-7 (Adaptive Management Plan), requires that the CCSD implement an AMP entailing long-term monitoring. The AMP requires monitoring of groundwater levels, surface water levels/flows, in-stream and riparian habitat, and presence of listed species, including steelhead. Implementation of the AMP is intended to avoid or reduce adverse impacts to steelhead, wherein if adverse effects to surface water, habitat, and/or species are detected as a result of AMP monitoring actions, the SWF would be required to shut down and consult with regulatory agencies to determine the best actions to take.

The Recovery Plan also notes the current loss of 50 percent of the estuary, but also states that this loss is due to earlier development of San Simeon State Park and its associated recreational facilities, as well as the placement of the park's vehicle and pedestrian bridge overcrossings. The SWF would not result in permanent losses of estuarine habitat, as it proposes no new development within the estuary. Based on detailed hydrogeological modeling (GMR), while the SWF is operating, the Project design feature's approximate ~~groundwater reinjection and~~ 100 gpm ~~of mitigation~~ filtrate product water discharge to the San Simeon Creek L~~l~~agoon would maintain water levels in the lagoon, thereby avoiding potential impacts to the lagoon habitat. Further, the Technical Memorandum concluded that under normal climatic conditions while the SWF is operating, flows of 50 gpm, which would be one-half of the ~~proposed~~ 100 gpm ~~mitigation~~ flow, would be sufficient to maintain lagoon levels similar to conditions without the SWF. Based on the GMR's and Technical Memorandum's findings, while the SWF is operating, the Project design feature's approximate 100 gpm ~~mitigation~~ filtrate product water flow to the lagoon would maintain water levels in the lagoon. The lagoon/estuary would be expected to be generally subject to its annual cycles, which are also influenced by weather. Thus, impacts would be less than significant in this regard.

Concerning the comment's suggestion to move the surface water discharge pipeline further upstream; see Response PA 4-13.

PA 4-24 The Project's potential effects on hydrology and water quality are fully evaluated according to CEQA Guidelines Appendix G thresholds, as follows:

- DSEIR Impact 5.5-1, *Water Quality – Construction-Related Impacts*;
- DSEIR Impact 5.5-2, *Water Quality – Operational Impacts*;
- DSEIR Impact 5.5-3, *Groundwater;*
- DSEIR Impact 5.5-4, *Drainage;*
- DSEIR Impact 5.5-5, *Flood Hazard Area - Structures*; and
- DSEIR Impact 5.5-6, *Seiche, Tsunami, or Mudflow.*

The commenter suggests that the DSEIR "relies primarily on studies and models done just in the vicinity of the project, which do not accurately characterize project-related effects on watershed hydrology and water quality." During evaluation of emergency water supply alternatives, CDM Smith developed and calibrated a comprehensive groundwater model, which synthesized prior information for the San Simeon alluvial basin. This work built upon modeling completed by Eugene Yates, who was one of principle authors of the 1988 USGS Report 98-4061, which had analyzed both the Santa Rosa and San Simeon Creek watersheds, and modeled each watershed's associated groundwater aquifers. Tracer studies completed by CDM Smith in 2014 and 2016 resulted in further field calibration and refinement of the San Simeon Creek groundwater model. Additionally, CDM Smith completed an instream flow study of the San Simeon Creek, which is provided as DSEIR Appendix E6.

As discussed in Responses PA 4-6, PA 4-7, and PA 4-8, the Project would not increase upstream pumping or diversions. DSEIR Appendix E6 Figure 7 shows the Project would provide a beneficial impact to the San Simeon Creek Lagoon when compared to the no Project condition.

PA 4-25 Concerning extent of drawdown/cone of depression, the GMR includes an assessment of the impact of the sustainable water supply on groundwater levels and the San Simeon Creek Lagoon level for the higher production and recharge rates. The potential impact on lagoon water level is addressed in DSEIR *Appendix E6* Figure 7. The simulated groundwater level from long term operations of the alternative was presented on GMR Figure 6-20. The model simulations indicate that water levels in the riparian area near Well 9P7 would decline during operations. The AMP has provisions to assess impacts on riparian vegetation and identifies mitigation measures, in the event impacts are detected. The PDF's approximate 100 gpm filtrate product water flows to the San Simeon Creek Lagoon allow maintenance of water levels similar to present conditions, and higher than what would result from current operations during an extended drought.

PA 4-26 Project operations would result in some movement of saline water inland, since one of the Project objectives is to enhance water availability during drought periods by recovering fresh water that would normally flow in the subsurface into the ocean. This is not expected to impact San Simeon Creek Lagoon water quality, since fresh water would be added to the lagoon at a rate equal to the groundwater seepage rate. Groundwater levels beneath the lagoon would decline to some degree, since flow would be induced back toward Well 9P7 during operations of the alternative. Addition of the PDF's approximate 100 gpm filtrate product water flow to the lagoon would maintain flow from the lagoon to groundwater, minimizing potential impacts of decreasing fresh water outflow to the ocean.

PA 4-27 This comment requests that the DSEIR evaluate the loss of groundwater recharge due to the increase in impervious surface area associated with the basin, which is assumed to refer to the evaporation pond. As state on DSEIR Page 5.5-2, groundwater occurs in the alluvial deposits beneath San Simeon Creek, which drains the western flanks of SLO County's Santa Lucia Range and discharges into the Pacific Ocean. The alluvium is saturated with groundwater near the ground surface at the creek's western extent. The alluvial aquifer is recharged primarily by seepage from San Simeon Creek, which typically flows during the winter and spring rainy seasons. During the periods when water is present in San Simeon Creek, groundwater levels are similar to those observed in the creek. The depth to groundwater increases away from the creek, since in many valley areas, the creek is incised below the adjacent terraces. Groundwater levels decline during dry periods due to lack of precipitation, natural dry-season drainage, and in response to CCSD pumping and surrounding agricultural users, which maintain private wells for farmland irrigation.

As concluded under DSEIR Impact 5.5-3, the Project enhances recharge to the groundwater basin, since fresh water that is currently lost to the ocean from operation of the treated waste water percolation ponds is captured, highly treated, and recharged to the groundwater basin to maintain CCSD well production and protective hydraulic gradients. The Project also results in a smaller decline in groundwater basin water levels than continuing current operations, since water from well 9P7 would be beneficially used for recharge, rather than lost as discharge to the ocean. Thus, with implementation of the required Order No. R3-01-100, the Project is required to replenish extracted groundwater, in order to avoid a substantial drop in production of existing nearby wells. Upon compliance with the required Monitoring Program required per this Order, the Project results in a less than significant impact involving long-term operational groundwater supplies and no mitigation is required. Therefore, based on these conclusions, and since the alluvial aquifer is recharged primarily by seepage from San Simeon Creek, the loss of groundwater recharge due to the increase in impervious surface area associated with the evaporation pond would be less than significant. Concerning the commenter's request that the DSEIR assess the effects of the loss of this water from the watershed, it is noted that the evaporation pond previously served as a wastewater effluent storage basin within the same footprint. Therefore, the current Project does not result in the 5.0 to 6.0 AFY of water loss alluded to in the comment.

PA 4-28 The Project's consistency with the identified beneficial uses are evaluated under DSEIR Impact 5.5-2, *Water Quality – Operational Impacts*. As discussed in DSEIR Page 5.5-27, because the SWF includes activities that involve discharges to groundwater and land, a Report of Waste Discharge (ROWD) for the SWF was filed with the CCRWQCB, pursuant to California Water Code §13260. The ROWD provides the technical information in support of the WDR Permits, in order to protect nearby

surface, coastal, and groundwaters. The CCRWQCB issued the WDR Permits for injecting AWTP product water into the groundwater basin (at the well field and percolation ponds) and the surface discharge at the evaporation pond and the San Simeon Creek Lagoon. These WDR Permits are discussed below.

Order No. R3-2014-0050. This Order permits the treatment and discharge of 452 gpm into the San Simeon Creek aquifer up-gradient at the well field. The Basin Plan contains beneficial uses and water quality objectives for the San Simeon Groundwater Basin, which is the receiving water affected by the injection of recycled water from the SWF. The beneficial uses of the San Simeon Groundwater Basin include MUN, IND, PROC, and AGR. Per this Order, the Project is required to meet the identified water quality objectives for the San Simeon Groundwater Basin, after the injection point for sodium hypochlorite and before injection into the aquifer.

Order No. R3-01-100. The Project modified the existing Order No. R3-01-100 to allow for the additional permitted waste discharge of 37 gpm of MF backwash to the percolation ponds. Present and anticipated beneficial uses of groundwater in the vicinity of the waste discharge include MUN and AGR. This Order contains provisions to maintain a salts management program to reduce salt mass loadings, and to ensure compliance with the Basin Plan objectives.

The Project would improve the reliability of the CCSD's water supply while providing a key design feature (approximate 100 gpm filtrate product water flow to San Simeon Creek Lagoon), which provides a beneficial impact to the lagoon; see Responses PA 4-7 and PA 4-8. It is further noted that the CCSD is also the water service provider to the Hearst San Simeon State Park SSC Campground. Therefore, the Project would provide a direct beneficial use to the State's visitor-serving campground and its related recreational activities. Overall, compliance with all Basin Plan objectives, as required by each of the Orders outlined above would ensure Project operations would be consistent with the beneficial uses and potential Project impacts are less than significant.

PA 4-29 The DSEIR (Page 5.5-14) acknowledges that portions of the Project site are located within a tsunami inundation area. It is noted that the Van Gordon Reservoir is located outside of this tsunami inundation area. Also, the DSEIR acknowledges the risk of tsunami under DSEIR Impact 5.5-6, *Seiche, Tsunami, or Mudflow*.

To further clarify potential impacts concerning tsunami, DSEIR Page 5.5-20 is revised in the FSEIR as follows:

Refer to Appendix C, *E-CDP Conditions of Approval*, for a list of E-CDP Conditions. E-CDP Conditions 6 and 20 are applicable to hydrology and water quality.

County of San Luis Obispo Tsunami Emergency Response Plan

The Emergency Response Plan (ERP) is primarily intended to establish and define emergency management procedures, organizational response, and coordination related to receipt of a Tsunami Information Statement, Watch, Advisory or Warning or an actual tsunami along the San Luis Obispo County coastline.

Emergency management in the County is implemented through the National Incident Management System (NIMS) and the Standardized Emergency Management System (SEMS). NIMS provides a comprehensive, national approach to incident management that is applicable at all jurisdictional levels. The County uses SEMS, as part of its emergency management and response operations.

According to the ERP, the potential tsunami hazard for the County's coastal areas is greatest for those communities or portions thereof located below the estimated elevations for the 100- to 500-year events, that is, below elevation 50 feet above mean sea level (amsl). Coastal land uses most vulnerable to tsunamis hazards are those located near mouths of streams that drain into the Pacific Ocean, such as San Simeon Creek, among other factors.

The ERP includes maps to illustrate the potential tsunami run-up along the County's coast. These maps use the 50 feet amsl topographic elevation as a working maximum height potential for tsunami incident. According to the ERP Southern San Simeon Inundation Map, portions of the Project site are located within the Tsunami Inundation Area and the Tsunami Plan Evacuation Area.

To further clarify potential impacts concerning seiche, DSEIR Page 5.5-9 is revised in the FSEIR as follows:

A seiche is an earthquake or slide-induced wave that can be generated in an enclosed body of water of any size from swimming pool, to a harbor, or lake. Given that the nearest large, enclosed open body of water is Lake Nacimiento, located approximately 12 miles northeast of the Project site, beyond the Santa Lucia Mountain Range, the potential for the Project site to be affected by seiching associated with Lake Nacimiento is nonexistent. Additionally, given that the onsite creeks are not inundated during the six dry months of the year, and given seiche is not considered a significant risk in San Luis Obispo County since County reservoirs are not

considered large enough, the potential for the Project site to be affected by seiching associated with onsite streams is not significant.

To further clarify potential impacts concerning seiche and tsunami, DSEIR Page 5.5-44 is revised in the FSEIR as follows:

A seiche is an earthquake or slide-induced wave that can be generated in an enclosed body of water of any size from swimming pool, to a harbor, or lake. Given that the nearest large, enclosed open body of water is Lake Nacimiento, located approximately 12 miles northeast of the Project site, beyond the Santa Lucia Mountain Range, the potential for seiching associated with Lake Nacimiento is nonexistent. Additionally, given that the onsite creeks are not inundated during the six dry months of the year, and given seiche is not considered a significant risk in San Luis Obispo County since County reservoirs are not considered large enough and there is none located in the Project vicinity, the potential for the Project site to be affected by seiching associated with onsite streams is not significant.[9] It is noted that the SWF includes an evaporation pond. However, the evaporation pond is not large enough to cause inundation to off-site properties as a result of a seiche. Therefore, less than significant impacts concerning seiche are anticipated.

Due to its location, the Project site has the potential to be exposed to mudflow (i.e., mudslide, debris flow) ~~and tsunami inundation~~. However, the SWF water facilities do not include habitable structures, or people residing at the Project site. Thus, less than significant impacts ~~result~~ involving ~~the~~ risk associated with ~~tsunami inundation or~~ mudflow are anticipated.

As discussed above, portions of the Project site are located within the Tsunami Inundation Area and the Tsunami Plan Evacuation Area, according to the ERP Southern San Simeon Inundation Map. The effects of a tsunami can range from little to heavy damage. Water storage and delivery infrastructure such as is proposed by the Project could be impacted, potentially impacting the ability to extinguish fires and availability of potable water for consumption. However, the AWTP and RO concentrate evaporation pond are located outside of the Tsunami Inundation Area; see ERP Southern San Simeon Inundation Map. As discussed above, portions of the Project site are located within the Tsunami Inundation Area and the Tsunami Plan Evacuation Area, according to the ERP Southern San Simeon Inundation Map. The effects of a tsunami can range from little to heavy damage. Water storage and delivery infrastructure such as is proposed by the Project could be impacted, potentially impacting the ability to extinguish fires and availability of potable water for consumption. However, the AWTP and RO concentrate evaporation pond are located outside of the Tsunami Inundation Area; see ERP

[9] County of San Luis Obispo Website, *San Luis Obispo County General Plan Safety Element*, http://www.slocounty.ca.gov/Assets/PL/Elements/Safety+Element.pdf, Accessed April 19, 2017.

Southern San Simeon Inundation Map.[10] Management of a tsunami incident pursuant to ERP specifications, which include implementation and compliance with the NIMS and SEMS, would ensure potential impacts associated with inundation by tsunami are less than significant.

MITIGATION MEASURES ~~(AND PROJECT MODIFICATIONS)~~

Similar to the SWF, Project modifications would not include habitable structures, or people residing at the Project site. Thus, less than significant impacts would result involving the risk associated with ~~tsunami inundation or~~ mudflow. As discussed above, portions of the Project site are located within the Tsunami Inundation Area and the Tsunami Plan Evacuation Area, according to the ERP Southern San Simeon Inundation Map. However, the SWTP, RO concentrate storage tanks, and treated water transfer tank and pump station are proposed outside of the Tsunami Inundation Area; see ERP Southern San Simeon Inundation Map.[11] The lagoon surface discharge structure would be the only Project component within the Tsunami Inundation Area and would be designed such that it can be flooded. Therefore, the impacts from this particular component being flooded would be less than significant. As with the SWF, management of a tsunami incident pursuant to ERP specifications would ensure potential impacts associated with inundation by tsunami are less than significant.

According to FEMA and as shown on Flood Insurance Rate Map Number 06079C0530G (DSEIR Page 5.5-12), portions of the Project site are located within Special Flood Hazard Area (SFHA) Zone A. Additionally, as shown on the *Flood Hazard Overlay Map*, figure (DSEIR Page 5.5-18) portions of the Project site are located within the FH Overlay. Potential Project impacts concerning placing a structure within a 100-year flood hazard area, which would impede or redirect flood flows are addressed under DSEIR Impact 5.5-5.

Portions of the Project site are situated within a 100-year flood plain and designated as FH Combining Designation. The proposed SWF aboveground improvements located within the 100-year flood zone and Flood Hazard combining designation are: the surface discharge structure; RIW; MW-4: and portions of the product water pipeline. No other permanent aboveground SWF facilities are located within the 100-year flood zone. Due to the nature and scale of the improvements located within the 100-year flood zone, none would affect the creeks' hydrologic/hydraulic characteristics or result in the modification of the existing regulatory floodway, the effective Base Flood Elevations (BFEs), or the Special Flood Hazard Area (SFHA). Therefore, none of these improvements would impede or redirect flows, such that they

[10] County of San Luis Obispo Website, *San Luis Obispo County General Plan Safety Element,* http://www.slocounty.ca.gov/Assets/PL/Elements/Safety+Element.pdf, Accessed April 19, 2017.

[11] Ibid.

would cause flooding downstream. According to FEMA, drinking water treatment plants are considered critical facilities that require special consideration.[12] FEMA further states that "a critical facility should not be located in a floodplain if at all possible. If a critical facility must be located in a floodplain it should be provided a higher level of protection so that it can continue to function and provide services after the flood." The evaporation pond and AWTP are located outside of the 100-year flood zone. Further, the AWTP would not be required to continue functioning and provide services after a flood event, since it is needed and would operate only during dry conditions, when flooding would not occur. The improvements located within the 100-year flood zone, as well as the SWF, were specifically designed to be protected from flooding or washout from a 100-year flood event. The SWF is not subject to the CZLUO Sections 23.07.064 through 23.07.066 standards, per CZLUO §23.07.062. As required by CZLUO §23.07.062, construction activities did not occur between October 15 and April 15. Further, during construction of underground SWF features located within the 100-year flood zone, the SWF complied with E-CDP Condition 6, pertaining to development in floodplains. As part of this condition, all SWF-related development within the 100-year floodplain, including water delivery pipes, were identified. As the SWF components within the 100-year flood zone were designed to be protected from flooding or washout during the 100-year flood event, the SWF results in a less than significant impact involving the placement of structures within a flood hazard area, since flows are not impeded or redirected as a result of the SWF.

No Project modifications are located within the 100-year flood zone, with the exception of the surface discharge extension. This structure would include Armorflex lining along the San Simeon Creek channel banks to protect the slopes from erosion. The Armorflex would allow for the continued growth of riparian vegetation, further protecting the channel from any potential erosion. Due to the nature and scale of the surface discharge extension proposed within the 100-year flood zone, this improvement would not affect the creeks' hydrologic/hydraulic characteristics or result in the modification of the existing regulatory floodway, the effective BFEs, or the SFHA. Therefore, the surface discharge extension would not impede or redirect flows, such that it would cause flooding downstream during the 100-year storm event. Further, the surface discharge extension would not be required to continue functioning after a flood event, since it would be needed and would operate only during conditions, when flooding would not occur. The Project modifications located within the 100-year FH overlay would be subject to CZLUO Sections 23.07.064 through 23.07.066 standards, per CZLUO §23.07.062. As required by CZLUO §23.07.062, construction activities would not occur between October 15 and April 15. Overall, Project improvements within the 100-year flood zone would not result in

[12] Federal Emergency Management Agency Website, *Critical Facilities and Higher Standards Fact Sheet*, https://www.fema.gov/media-library-data/1436818953164-4f8f6fc191d26a924f67911c5eaa6848/FPM_1_Page_Critical Facilities.pdf, Accessed April 14, 2017.

significant impact involving the placement of structures within a flood hazard area, such that flows are impeded or redirected. The Project's drinking water treatment plants (AWTP and SWTP) are located outside of the 100-year flood zone. Further, the AWTP and SWTP would not be required to continue functioning and provide services after a flood event, since they are needed and would operate only during dry conditions, when flooding would not occur. Impacts in this regard would be less than significant.

This comment also states the Project was damaged by the January 2016 storm event. CCSD staff have witnessed and responded to unique flooding events that are not within current flood maps. These events included a January 19, 2016 flash flood, as well as flooding resulting from an atmospheric river of precipitation during January 2017. The January 19, 2016 flash flood occurred following substantial rainfall event that released 3.62 inches of rain at the Rocky Butte #703 rain gage, which is at the upper elevation and end of the San Simeon Creek watershed.[13] This event washed a large debris field downstream, which created a blockage in the main San Simeon Creek channel. The main San Simeon Creek channel blockage led to water entering the existing San Simeon Creek well field and adjacent property to the west of the main well field. From review of the debris left behind, it was apparent that much of the material was from anthropogenic activity, as there was a significant amount of milled lumber and sawn logs. The January 2017 atmospheric river events caused a field north of San Simeon Creek Road and the evaporation pond to flood across San Simeon Creek Road from north to south, and enter the CCSD pond property. These events all occurred during wet weather conditions while the SWF was not operating.

In response to the January 19, 2016 flash flooding, the CCSD is installing minimally invasive soil anchors along 200 feet of the product water pipeline immediately upstream from the SWF reinjection well. This measure is being implemented to ensure this above-grade reach of pipeline would not float or shift should a similar event ever occur in the future. As an added level of precaution, the CCSD is also extending the reinjection well vertically by extending the above-grade portion of the well casing and interior well piping approximately 3.0 feet.

In response to the January 2017 flooding north of the evaporation pond, the County is in the process of grading the northern shoulder of the San Simeon Creek Road to direct any future stormwater runoff into an existing 4.0-foot diameter County culvert that is under San Simeon Creek Road. During this past flooding event, the 4.0-foot diameter culvert was only flowing a few inches in depth, as the stormwater was not reaching the culvert inlet. As an added level of precaution, the CSSD is also providing a lined

[13] San Luis Obispo County Public Works, Daily Precipitation (inches) for Rocky Butte #703, 2015-2016 Season, Available.at http://www.slocountywater.org/weather/alert/precipitation/pdf/703%20Rocky%20Butte%20Precipitation%20Data.pdf.

drainage channel on its property outside the evaporation pond's northern berm. This lined drainage channel would be capable of handling a 1000-year flood recurrence interval storm emanating from the property north of San Simeon Creek Road.

PA 4-30 See Response PA 4-29 concerning seiche and tsunamis and potential flood-related hazards.

To further clarify Project consistency with CZLUO §23.08.288 concerning the feasibility of locating the Project within a flood hazard area (as well as agricultural lands and ESHA), DSEIR page 5.6-43 is revised in the FSEIR as follows:

CZLUO Section 23.08.288 (Public Utility Facilities). The requirements of this section apply to Public Utility Facilities where designated as S-13 uses by Coastal Table "O." Public Utility Facilities (other than electric and communications transmission and natural gas regulation and distribution) require Development Plan approval pursuant to Section 23.02.034, *Development Plan*. According to CZLUO Section 23.08.288d, *Limitation on Use, Sensitive Environmental Areas,* uses shall not be allowed in sensitive areas such as on prime agricultural soils, sensitive resource areas, environmentally sensitive habitats, or hazard areas, unless a finding is made that there is no other feasible location on or off-site the property. As shown on the Permit View NRCS [Natural Resources Conservation Service] Farmland Classification Map (see Section 8.1, *Agricultural and Forest Resources*), the western portions of the Project site are designated "Prime Farmland if Irrigated" and a small segment along the northern boundary is designated "Farmland of Statewide Importance." As shown on the Combining Designation Map, portions of the Project site are assigned Environmentally Sensitive Habitat [Area] (ESHA), including Terrestrial Habitat (ESHA-TH) and Coastal Creeks (ESHA-CC). This ESHA-TH designation is associated with the Monterey pine forest that exists south of the Project site. The Project development footprint does not extend into this Monterey pine forest ESHA-TH. Therefore, no further analysis of this ESHA-TH is required. The ESHA-CC designation is associated with the San Simeon Creek, Van Gordon Creek, and San Simeon Creek Lagoon, which traverse the Project site. As discussed in Section 5.5.2, according to FEMA and as shown on Flood Insurance Rate Map Number 06079C0530G, portions of the Project site are located within Special Flood Hazard Area (SFHA) Zone A. Additionally, as shown on the Flood Hazard Overlay Map, figure, portions of the Project site are located within the FH Overlay. Potential impacts concerning placing a structure within a 100-year flood hazard area structures which would impede or redirect flood flows are addressed under Impact 5.5-5. As discussed in detail in Section 7.5, *Alternatives Considered But Rejected*), various alternatives (including alternative sites) were rejected due to greater environmental impacts, and time and location constraints, among other factors. Therefore, no feasible alternative Project site exists. The SWF Project repurposes various existing infrastructure, including the Van Gordon Reservoir, to facilitate its timely completion, minimize its footprint, minimize its potential impacts (including to ESHA), and convert the least amount of prime soils. Moreover, the pipeline alignments were

determined based on the shortest distance between the two points that avoided ESHA and other sensitive biological resources to the maximum extent practicable, and avoided the existing cultural resources, as discussed in detail in Section 5.4, *Cultural Resources*. The vast majority (approximately 90 percent) of the SWF conveyance piping was installed above grade to minimize disturbance. Additionally, horizontal directional drilling construction was used to install SWF pipeline reaches under Van Gordon Creek without disturbing the ground surface, with entrance and exit pits located outside of the tree drip line. Thus, the SWF was designed and located to avoid significant disruption to prime soils and ESHAs. It is also noted that the CCSD acquired the underlying Bonomi Ranch property prior to original adoption of the CZLUO (March 1, 1988), and has been using the property for Public Facilities (PF) since 1979. This acquisition was predicated on the CCSD's use of the property for its Public Facilities, as opposed to agricultural uses. Consistency with the applicable requirements would be confirmed through the R-CDP application process.

Potential Project impacts associated with potential spills of hazardous chemicals are evaluated in DSEIR Section 8.5. The AWTP incorporates leak and spill containment measures to minimize the risk of upset to both onsite employees and surrounding areas, as required by existing CUPA regulations. An Operations, Maintenance and Monitoring Plan (OMMP) (CDM Smith, January 6, 2015) was prepared for the Project. The OMMP covers the Project facilities and treatment systems constructed for the AWTP. The DSEIR concludes the potential exists for hazardous materials to be accidentally released during SWF operations. However, facilities that store, handle, or transport hazardous materials such as the Project are required to procure business plans and adhere to strict procedures enforced by agencies with jurisdiction over businesses or areas that routinely use or handle hazardous materials. During operations, all standards required by the SLO EHD, EPA, DTSC, and CDF are implemented. Compliance with the regulatory requirements described above ensures that the Project does not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.

The comment also recommends that the Project be evaluated for the 500-year storm event, which is for "critical" facilities. It is noted, the CEQA threshold addresses whether the Project would "place a structure within a 100-year flood hazard area that would impede or redirect flood flows." As concluded in Response PA 4-29, due to the nature and scale of the improvements proposed within the 100-year flood zone, they would not affect the creeks' hydrologic/hydraulic characteristics or result in the modification of the existing regulatory floodway, the effective BFEs, or the SFHA. Therefore, these improvements would not impede or redirect flows, such that they would cause flooding downstream. Further, the AWTP, SWTP, and surface discharge extension would not be required to continue functioning, since they would be needed and would operate only during dry conditions, when flooding would not occur.

Under Executive Order 11988, *Floodplain Management*, Federal agencies funding/ permitting critical facilities are required to avoid the 0.2% (500-year) floodplain or protect the facilities to the 0.2% chance flood level. After review, the AWTP does not meet the criteria defining a critical action and critical facilities, and therefore the 500-year storm event would not apply. Out of an abundance of caution, the chemicals used and stored at the facility were reviewed and conservatively compared against the threshold planning quantity (TPQ) limits of the California List of Acutely Hazardous Materials. Chemicals found on this list that are used within the AWTP are aqueous ammonia (19% concentration) and sulfuric acid (93% concentration). The TPQ limit for aqueous ammonia is 500 pounds, which equates to 340 gallons. The TPQ limit for sulfuric acid is 1000 pounds, which equates to 70 gallons. Based on this finding, and to conservatively err on the side of caution, CCSD operations will ensure that no more than 340 gallons of aqueous ammonia and no more than 70 gallons of sulfuric acid will be stored on site between chemical deliveries. These maximums will be reflected in a future update to the facility's OMMP.

It is further noted that there is no 500-year flood data available for the Project area. Also, as previously noted, the AWTP would not be required to continue functioning after a flood event, since it would be needed and would operate only during dry conditions, when flooding would not occur. Field observations have further confirmed that the AWTP remained dry during past flooding events (January 19, 2016 flash flood, and three Governor-declared disaster events (FEMA 4301-DR-CA, January 3-12, 2017 [9.5 inches of rainfall]; FEMA 4305-DR-CA, January 18-23, 2017 [6.02 inches of rainfall], and FEMA 4308-DR-CA, February 1-23, 2017 [6.28 inches of rainfall]). Two non-critical Project areas were observed to have been flooded during the 2016 and 2017 flood events. One area was the lagoon discharge structure, which is a rocked outlet at grade level where lagoon water exits pipelines to form a sheet flow towards the lagoon. The lagoon discharge structure was not damaged after being submerged several times, and would not be required to continue functioning after a flood event, since it would be needed and would operate only during dry conditions, when flooding would not occur. The second Project area where flooding was observed was the reinjection well and approximately 200 feet of reinjection well supply pipeline from the RIW well upstream. Similarly, these improvements would not be required to continue functioning after a flood event, since they would be needed and would operate only during dry conditions, when flooding would not occur. Notwithstanding, the CCSD is in the process of adding vertical casing to the reinjection well, as well as minimally invasive soil anchors to the supply pipeline to prevent it from moving (floating) under flood events.

Beyond the SWF facilities, the evaporation pond was impacted during the 2017 atmospheric river when storm water from properties north of San Simeon Creek Road flowed across the roadway and ponded along the pond's northern berm. Besides

modifying the pond, as described within the SEIR, SLO County Public Works and the CCSD are also improving the drainage within this localized area to prevent such a recurrence.

PA 4-31 The discussion concerning Community Wide (CW) Standard 4D is found on NCAP Page 7-29. CW Standard 4D was apparently written for a seawater desalination facility, which is evidenced by certain specific references (e.g., beach wells). The SWF is approximately 0.5 mile inland from the ocean and makes use of a pre-existing well (Well 9P7) for its source of brackish water. Notwithstanding, the Project is analyzed for consistency with the NCAP, including CW Standard 4D, in DSEIR Table 5.6-2, *NCAP Consistency Analysis*. As indicated in DSEIR Table 5.6-2, the SWF and Project modifications are compliant with the NCAP Land Use Standards (including CW Standard 4D) adopted for the purpose of avoiding or mitigating an environmental effect. A less than significant impact would occur in this regard. Contrary to the comment's assertion, the Project re-injects water into the San Simeon Creek aquifer. The Project would not increase diversions from the aquifer; see Responses PA 4-6, PA 4-7, PA 4-8, and PA 7-6 for further related discussions.

PA 4-32 As discussed on DSEIR Page 4-2, the CCSD prepared the Water Master Plan Program EIR (WMP PEIR) (RBF Consulting, July 2008) (SCH #2004071009), as lead agency under CEQA to evaluate the potential environmental impacts from WMP implementation, as described in WMP PEIR Section 3.0, *Project Description*, and summarized in DSEIR Section 4.0. See also DSEIR Section 2.2, *CEQA Document Tiering and Water Master Plan*. WMP PEIR Section 5.13 is consistent for the proposed Project. At the time of the writing of the WMP PEIR, a seawater desalination facility was proposed on the Project site. The proposed Project introduces a facility for advanced water treatment and ultimate use within the CCSD's potable water system. That was the consideration for the previous desalination facility and those findings are applicable and consistent for the proposed facility. Thus, the WMP PEIR findings and analysis are summarized as follows:

> *"Implementation of the proposed Water Master Plan could foster population growth in Cambria, which would be consistent with population growth projections anticipated in the North Coast Area Plan. Analysis concludes that implementation of the proposed Water Master Plan would not result in an unregulated amount of growth, following implementation of the recommended mitigation (i.e., buildout reduction program) and compliance with San Luis Obispo County and* CCSD *growth management policies. The proposed project would result in less than significant cumulative growth inducing impacts."*

Without adopted growth management policies, the availability of additional water supplies would remove an obstacle to growth, potentially leading to increased growth

in Cambria. However, the WMP emerged out of the basic need for replacement of a lost water supply and attainment of the established reliability criterion goals. As stated in the WMP PEIR, WMP implementation would not result in an unregulated amount of growth. All future development would be subject to continued compliance with the existing CCC, SLO County, and CCSD adopted growth management policies. Also, the CCSD has confirmed a maximum of 4,650 existing and future residential connections, as the ultimate buildout of Cambria. In coordination with the WMP program, as well as earlier CCC recommendations, the CCSD's Buildout Reduction Program (BRP) mitigates the WMP's potential for growth-inducing impacts (i.e., the increased water supply and availability).

The overall goal of the BRP is to retire and/or merge enough potential building sites in Cambria such that the remaining number of suitable building sites generally match the 864 (total) additional outstanding residential water connections that have been approved by the CCSD. To accomplish this goal, residential lots need to be retired/merged. Potential building sites, not all vacant lots, are targeted because many lots do not qualify for development, since they are too small to acquire water rights. The BRP anticipates continued implementation of current CCSD and SLO County programs to retire/merge residential lots.

The general goals for planning in Cambria presented in the NCAP (i.e., Goal 2 [Orderly Development], Goal 4 [Location and Timing of Urban Development] and Goal 5 [Location and Timing of Development Within Cambria]) function as criteria to determine WMP consistency with the LUE/LCP. BRP implementation as mitigation for the WMP furthers these identified goals. Compliance with the BRP provisions provides for a sustainable rate of development within the WMP's planned capacity. The WMP system capacity is sized to be commensurate with the planned level of development (a maximum of 4,650 residential connections).

Development in Cambria is subject to review (through SLO County's established development review process) for consistency with SLO County Code Title 26 (Growth Management Ordinance), CZLUO §23.04.440 (Transfer of Development Credits – Cambria), and CZLUO §23.04.048 (Lot Consolidation). As stated in the WMP PEIR, following compliance with the recommended BRP mitigation, and the provisions of the County Code and NCAP, WMP implementation would result in less than significant growth-inducing impacts regarding impediments to growth.

As stated in the WMP PEIR, potential growth-inducing impacts are also assessed based on a project's consistency with adopted plans that have addressed growth management from a local and regional standpoint. Population growth in Cambria has been anticipated in the 2005 NCAP and 2007 NCAP. The 2005 NCAP projected a population growth of approximately 31 percent over existing conditions. In contrast,

the population growth projected by the proposed WMP would be less than the 2005 NCAP, proposing a reduction of approximately seven (7.0) percent. Similarly, the 2007 NCAP projected a population growth of approximately 62 percent over existing conditions. In contrast, the population growth projected by the proposed WMP would be significantly less than the 2007 NCAP, proposing a reduction of approximately 24 percent.

The WMP PEIR concludes that WMP implementation would not result in an unregulated amount of growth, following compliance with the recommended mitigation (i.e., BRP), and continued compliance with existing County and CCSD adopted growth management policies and established County provisions (i.e., CZLUO Table O and NCAP Standards). BRP implementation is in compliance with the CCC's recommendation in their 2001 periodic review of the County's LCP to reduce Cambria's buildout potential. In consideration of the existing and proposed growth management policies, growth-inducing impacts were concluded as less than significant. It is noted that the WMP proposes implementation of the following features that would further minimize potential growth-inducing impacts:

- The WMP system capacity is sized to be commensurate with the planned level of development proposed in the BRP (a maximum of 4,650 existing and future residential connections).

- The long-term growth-inducing impacts of the proposed improvements are assessed in this EIR.

- Project approval would be coordinated with regional growth management goals. The water supplies made available through the proposed WMP would not exceed the levels necessary to support development potentially allowable under the relevant growth management plans. The proposed WMP would not interfere with the long-term County goals for growth control in Cambria.

- Consistent with the 2007 NCAP and the recently approved Measure P-06, the BRP specifies that no future potable water service expansions would be provided outside the existing service boundary.

The DSEIR further includes the results of water conservation, which the CCSD adopted as Program B during its December 15, 2016 Board meeting that included approval of the 2015 UWMP. These results are shown on DSEIR Page 3-5. Under Conservation Program B, the forecasted demand at buildout will be less than 700 AFY. With such conservation in place, future demands are being met by the existing groundwater supply, while the SWF serves to improve supply reliability.

The comment makes further reference to the SWF's useful life (20-years) being less than the useful life of residential and commercial developments (cited as being 50 to 75 years). This argument does not take into account that facilities are replaced over time, which is part of a utility agency's normal operations. Similarly, communities rebuild and restore houses and commercial development over time, which is proven by review of historic communities, particularly along the eastern seaboard of the United States. Thus, this comment's argument does not take into account future replacement functions of the public and private sectors.

The last paragraph of this comment does not consider the County's role in administering its GMO, which sets the annual growth rate within unincorporated areas, such as Cambria.

For the aforementioned reasons, and contrary to the comment's last paragraph, the DSEIR does not require revision.

PA 4-33 The commenter addresses the RO Concentrate Ocean Outfall Disposal Alternative potential impacts associated with the routine transport, use, and disposal of hazardous materials. The commenter also requests that the DSEIR analyze each of the 16 optional outfalls identified for this Alternative. See Responses PA 4-15 and PA 4-19 concerning potential Project impacts associated with the routine transport, use, and disposal of hazardous materials. According to CEQA Guidelines 15126.6(d), if an alternative would cause one or more significant effects in addition to those that would be caused by the project as proposed, the significant effects of the alternative shall be discussed, but in less detail than the significant effects of the project as proposed. As such, Alternatives in the DSEIR are analyzed in less detail than the Project. DSEIR Section 8.5.a concludes there is a less than significant impact concerning the routine transport, use, or disposal of hazardous materials. Thus, the RO Concentrate Ocean Outfall Disposal Alternative does not analyze potential impacts associated with the routine transport, use, and disposal of hazardous materials. Additionally, according to CEQA Guidelines §15126.6(f), the range of alternatives required in an EIR is governed by a "rule of reason" that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice. The analysis of alternatives included in the DSEIR, including the RO Concentrate Ocean Outfall Disposal Alternative analysis, includes sufficient detail such that the decision-makers are able to make a reasoned choice. Therefore, detailed analysis (i.e., respective haul routes, etc.) as requested by the commenter is not necessary.

Further, unlike RO concentrate from a seawater desalination facility, the salt concentration in the SWF RO concentrate is significantly lower because it uses a brackish water source. Moreover, under this alternative the RO concentrate would be of a much higher quality, as it would not be a product of the extended evaporation

process. TDS in the SWF's RO concentrate is approximately 500 percent lower than from a seawater desalination plant. The maximum amount of RO concentrate that could be spilled would be limited to 6,000 gallons, which is the capacity of the largest truck that will be used. All transportation of RO concentrate would be subject to compliance with the regulatory requirements described in DSEIR Section 8.5.a to ensure the RO Concentrate Ocean Outfall Disposal Alternative would not create a significant hazard to the public or the environment through the routine transport of the RO concentrate to the ocean outfall. A less than significant impact would occur in this regard.

It is noted, the South-SLO SD issued the CCSD a Brine Disposal Permit, which authorizes the CCSD to discharge the RO concentrate (salt brine) to the South-SLO SD's existing turn-out structure pipeline connection; see Response PA 4-15.

PA 4-34 See Response PA 4-33 concerning CEQA Guidelines 15126.6(d) and the level of detail required for an alternatives analysis. As acknowledged on DSEIR Page 7-15, use of an ocean outfall for RO concentrate disposal would be subject to inter-agency negotiations, as well as various permits that may be required from various regulatory resource agencies to ensure that significant impacts to the marine environment would not occur. Further, as acknowledged on DSEIR Page 7-17, further discussions with the outfall agency representatives would be needed to confirm whether the programs and permits in place could accept the SWF's RO concentrate without requiring further detailed studies and permitting. Since DSEIR release, the CCSD has identified the South-SLO SD as a local agency that has a permitted outfall and program in place capable of accepting the Project's RO concentrate stream. By being within the South-SLO SD's concentration and load limits permit conditions, future modifications to their facilities should not be necessary.

Regardless of which of the 16 facilities would be selected as part of the Alternative, a detailed analysis of marine biological impacts would be required prior to implementation of this Alternative, and such a discharge would be subject to the State Water Resources Control Board (SWRCB) *Amendment to the Water Quality Control Plan for Ocean Waters in California Addressing Desalination Facility Intakes, Brine Discharges, and the Incorporation of Other Non-Substantive Changes* (OPA). Permits from the SWRCB and CCC would also be required for implementation of this Alternative. In compliance with CEQA requirements, sufficient detail concerning this Alternative's potentially significant effects are discussed. Additional discussion concerning the permit requirements for the 16 outfall options would be too speculative for evaluation, which CEQA discourages in CEQA Guidelines §15145. (Authority cited: Public Resources Code (PRC) §21083; Reference: PRC Sections 21003, 21061, and 21100; Topanga Beach Renters Association v. Department of General Services, (1976) 58 Cal. App. 3d 712.).

PA 4-35 As discussed on DSEIR Page 8-27, for purposes of conducting a conservative analysis of the potential traffic impacts associated with offsite RO concentrate disposal, it is assumed the SWF would operate 24/7, during the driest time of the year (approximately six months). Under this scenario, ten truck trips per day (limited to operating within the SWF site between the hours of 7 AM and 7 PM) would be needed to transport the RO concentrate to Kettleman Hills, assuming a 6,000 gallon truck would be used. Based on the nominal amount of daily trips required for offsite disposal of RO concentrate, this activity would not conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system. Offsite RO concentrate disposal would not significantly impact intersections, streets, highways, freeways, mass transit, or Congestion Management Program (CMP) facilities. Additionally, the Project modifications would not impact pedestrian or bicycle paths, since none are located on or immediately adjacent to the Project site.

See Responses PA 4-15 and PA 4-19 concerning potential Project impacts associated with the routine transport, use, and disposal of hazardous materials.

PA 4-36 As discussed on DSEIR page 8-8, the Geotechnical Evaluation concludes it is likely for at least one moderate to severe earthquake to occur at the site during the life of the Project. During a moderate to severe earthquake occurring on the nearby faults, strong ground shaking of the site will likely occur. Earthquakes on regional/local causative faults could expose people or the Project to strong seismic ground shaking. The intensity of ground shaking on the Project site depends on the magnitude of the earthquake, distance to the epicenter, and geology of the area between the epicenter and the Project site. Numerous controls are imposed on the Project through the permitting process. In general, the County regulates development (and reduces potential seismic and geologic impacts) through compliance with the CZLUO (which implements the LCP) and San Luis Obispo County Code Title 19, *San Luis Obispo County Building and Construction Ordinance* (BCO). These regulations were established to protect and promote the public health, safety, and welfare. In compliance with CZLUO §23.07.084, a geologic and soils report (*Cambria Emergency Water Supply Project Geotechnical Evaluation* (Geotechnical Evaluation) (CDM Smith, July 31, 2014)) was prepared to assess the site's conditions concerning seismicity and geology. The Geotechnical Evaluation recommended techniques to establish minimum seismic design requirements and reduce seismic/geologic risks to less than significant levels. The Project (evaporation pond) involves a Class II Unit and as such, the MCE was used in the design. In compliance with CZLUO §23.07.086(c), the Geotechnical Evaluation's recommendations were implemented during Project construction, thereby ensuring structural stability. The SWF was designed and constructed in accordance with the Geotechnical Evaluation's recommendations, BCO regulations, and engineering practice guidelines for seismic design. Similarly, the proposed Project modifications

were also designed and would be constructed in accordance with the Geotechnical Evaluation's recommendations, BCO regulations, and engineering practice guidelines for seismic design. Following compliance with the BCO and CZLUO (which implements the LCP) pertaining to seismic design, as well as the Geologic Investigation's recommendations, the Project results in a less than significant impact regarding the exposure of people or structures to substantial adverse effects involving strong seismic ground shaking.

As discussed on DSEIR page 8-8, according to the Seismic Hazards Zones Map, the Project Site is not located within a ZORI for liquefaction hazard. However, as shown on the Permit View Environmental – Liquefaction Map, most of the Project site is classified as having a moderate potential for liquefaction. CDM concludes, liquefaction at the Van Gordon Reservoir level would be minimal, given the potentially liquefiable layers are capped with thicker layers of non-liquefiable soils. Further, as discussed above, a geologic investigation was prepared to assess the site's conditions concerning seismicity and geology. The SWF was designed and constructed in accordance with the Geotechnical Evaluation's recommendations, BCO regulations, and engineering practice guidelines for seismic design. Similarly, the proposed Project modifications were also designed and would be constructed in accordance with the Geotechnical Evaluation's recommendations, BCO regulations, and engineering practice guidelines for seismic design. More specifically, the Project was designed and constructed according to the California Geological Survey Special Publication 117A, as well as the Southern California Earthquake Center's *Recommended Procedures for Implementation of DMG Special Publication 117 Guidelines for Analyzing and Mitigating Liquefaction Hazard in California* (1999). The Geotechnical Evaluation, which contains the specific engineering design standards and overall recommendations, is available for public review at the Cambria Community Services District, 1316 Tamson Drive, Suite 201, Cambria, California 93428. Following compliance with the BCO and CZLUO pertaining to seismic design, as well as the Geologic Investigation recommendations, the Project results in a less than significant impact regarding the exposure of people or structures to substantial adverse effects involving liquefaction.

PA 4-37 None of the corrections or clarifications to the DSEIR identified in this document constitute "significant new information" pursuant to CEQA Guidelines §15088.5. They do not involve changes in the Project or environmental setting, or significant additional data. They do not result in any new or substantially greater environmental impacts, as compared to those identified in the DSEIR. Moreover, the revisions do not affect the DSEIR's overall conclusions. Therefore, recirculation of the DSEIR is not warranted. Notwithstanding, this comment is so noted and will be considered by the CCSD Board during their deliberations on the Project.

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SERVICE
Monterey Bay National Marine Sanctuary
99 Pacific Street, Bldg 455
Monterey, California 93940

October 26, 2016

Cambria Community Services District (CCSD)
1316 Tamson Drive, Suite 201
Cambria, California 93428
Attn: Mr. Robert Gresens

Subj: Cambria Community Services District (CCSD) Draft Subsequent Environmental Impact Report (DSEIR) for the Sustainable Water Facility

Dear Mr. Gresens:

NOAA's Monterey Bay National Marine Sanctuary (MBNMS) staff has reviewed the Draft Subsequent Environmental Impact Report (DSEIR) for the Sustainable Water Facility (SWF). The construction of the SWF was mostly completed in November 2014 under emergency exemption provisions of CEQA. The project is located at 990 San Simeon - Monterey Creek Road and includes one extraction well (existing Well 9P7); an Advanced Water Treatment Plant (AWTP); an injection well (RIW) to the groundwater basin at San Simeon well field; an evaporation pond and evaporators; lagoon surface discharge; monitoring wells; and pipelines (five interconnecting). The project was designed and constructed to treat brackish groundwater using advanced treatment technologies in order to augment Cambria's potable water supply in response to California's severe drought. One of the conditions of the San Luis Obispo County Emergency Coastal Development Permit (eCDP) was that CCSD must apply for a regular CDP. As such, the DSEIR was completed to support that effort. **5-1**

The major modifications considered in this DSEIR are repurposing of the evaporation pond, removal of the mechanical spray evaporators, offsite RO concentrate disposal; surface water treatment; and modified surface discharge. The DSEIR considers three alternatives: No Project Alternative (assumes condition prior to construction of SWF), SWF without Project modifications (assumes current Project as it exists today), and an ocean outfall disposal of the RO concentrate.

The current configuration of the SWF is outside of MBNMS jurisdiction. However, the alternative being considered for ocean outfall disposal of RO concentrate would trigger a federal action from our office if the discharge were to occur within MBNMS. MBNMS prohibitions are codified at 15 CFR Part 922. Subpart M sets out general prohibitions against certain activities within MBNMS, including (1) discharging or depositing any material or matter within or into the sanctuary (e.g. pollutants, trash, objects, etc.), or from outside the boundaries if it subsequently enters and injures the sanctuary (among other prohibitions). These activities are not allowed in MBNMS unless authorized through a lease, permit, license, approval, or other authorization issued by MBNMS (Sections 922.132, 922.48 and 922.49). **5-2**

In the Alternatives section, this DSEIR proposes sixteen potential wastewater treatment facilities as options for ocean disposal of the RO concentrate. Six of these waste water treatment facilities discharge directly into MBNMS. There was no environmental impact analysis conducted for the marine environment. If any of the six facilities within MBNMS are chosen for the co-mingling of wastewater and RO concentrate, at a minimum, source water characterization and dilution modeling will be necessary to determine compliance with the CA Ocean Plan. If an alternative for ocean disposal is identified within MBNMS boundaries, my office will take appropriate steps to ensure compliance with our regulations and appropriate National Environmental Policy Act (NEPA) review as needed. **5-3**

MBNMS is not listed as a public agency whose approval may be required. Please add MBNMS to the list and include Bridget Hoover in any correspondence regarding potential discharges to MBNMS. In addition, if you have any questions regarding our comments, please contact Bridget Hoover at bridget.hoover@noaa.gov or (831) 647-4217.

5-4

Sincerely,

Paul Michel

Paul Michel
Superintendent

Cc: Mr. John Robertson, Central Coast Regional Water Quality Control Board
Mr. Tom Luster, California Coastal Commission

RESPONSE TO COMMENT LETTER NO. PA-5
Paul Michel, Superintendent
National Oceanic and Atmospheric Administration
October 26, 2016

PA 5-1 This comment provides introductory statements and a Project summary. No further response is necessary.

PA 5-2 Comment so noted. DSEIR Page 7-17 is revised in the FSEIR as follows:

However, the discharge of RO concentrate to the ocean through the Santa Cruz Wastewater Treatment Plant ocean outfall (as well as any of the other ocean outfalls identified above) would be subject to meeting permitted concentration and loading limitations, and additional study may be further required through its NPDES permit. Unlike RO concentrate from a seawater desalination facility, the salt concentration in the SWF's RO concentrate is much lower due to its source water being brackish water, as opposed to pure seawater. For example, the SWF's total dissolved solids concentration would be approximately 6,000 mg/l, while background seawater would be approximately 32,000 mg/l. Additionally, the introduction of RO concentrate would be further diluted by existing wastewater effluent currently being disposed of within the existing outfall. Further discussions with the outfall agency representatives would be needed to confirm whether the programs and permits in place could accept the SWF's RO concentrate without requiring further detailed studies and permitting. If such efforts were needed, the Kettleman Hills site would be used until such supporting studies and permitting were completed. A detailed analysis of marine biological impacts would be required prior to implementation of this Alternative, and such a discharge would be subject to the State Water Resources Control Board (SWRCB) *Amendment to the Water Quality Control Plan for Ocean Waters in California Addressing Desalination Facility Intakes, Brine Discharges, and the Incorporation of Other Non-Substantive Changes* (OPA). Permits from the SWRCB and California Coastal Commission would also be required for implementation of this Alternative. Additionally, if the discharge is proposed within the Monterey Bay National Marine Sanctuary (MBNMS), authorization would be required from the MBNMS along with appropriate NEPA review as needed. Subject to further analysis of impacts related to marine biological resources, the RO Concentrate Ocean Outfall Disposal Alternative would be considered environmentally inferior to the Project Modifications.

DSEIR Page 7-18 is revised in the FSEIR as follows:

Hydrology and Water Quality

Under the RO Concentrate Ocean Outfall Disposal Alternative, none of the facilities proposed as part of the Project Modifications would be altered. The only difference between this Alternative and the Project Modifications would be that the RO concentrate would be trucked to the Santa Cruz Wastewater Treatment Plant for disposal through the existing ocean outfall. There would be no changes to drainage or water quality conditions under this Alternative. The introduction of RO concentrate, while much more dilute than background seawater concentrations, as well as being further diluted by existing wastewater effluent, could potentially alter marine water quality. To minimize this potential impact, the discharge of RO concentrate to the ocean through the ocean outfall would be subject to meeting permitted concentration and loading limitations required of the agency's permitting program, and as may be further required through its NPDES permit and OPA compliance. Further discussions with the outfall agency representatives would be needed to confirm whether the programs and permits in place could accept the SWF's RO concentrate without requiring further detailed studies and permitting. If such efforts were needed, the Kettleman Hills site would be used until such supporting studies and permitting were completed. Additionally, if discharge is proposed within the Monterey Bay National Marine Sanctuary (MBNMS), authorization would be required from the MBNMS along with appropriate NEPA review as needed. Subject to further analysis of impacts related to hydrology and water quality, the RO Concentrate Ocean Outfall Disposal Alternative would be considered environmentally inferior to the Project Modifications.

PA 5-3 As acknowledged on DSEIR Page 7-15, a detailed analysis of marine biological impacts would be required prior to implementation of this Alternative; see also Response PA 4-34. Should any of the optional RO concentrate ocean outfall disposal sites be selected, further CEQA and NEPA review may be required. However, the DSEIR analyzes the Project (including the SWF and Project Modifications. The Project does not propose to discharge into the MBBNS.

PA 5-4 See Response PA 5-3 concerning Project Alternatives. DSEIR Section 3.7 identifies the public agencies whose approval would be required for the Project. The Project does not propose any discharges to the MBBNS. As such, MBNMS is not identified. Listing of Project Alternatives' permit requirements is not required by CEQA.

SAN LUIS OBISPO COUNTY

DEPARTMENT OF PLANNING AND BUILDING

Promoting the wise use of land - Helping to build great communities

October 26, 2016

Mr. Robert C. Gresens, P.E.
District Engineer
Cambria Community Services District Planning Department
1316 Tamson Drive, Suite 21
Cambria, CA 93428

Subject: Comments on Draft Subsequent Environmental Impact Report (SEIR) for Cambria Sustainable Water Facility

Dear Mr. Gresens,

Thank you for this opportunity to submit comments on the CCSD's Draft SEIR for the Cambria Sustainable Water Facility. The County granted an Emergency Coastal Development Permit (ZON2013-00589) on May 15, 2014, which authorized construction of the facility to serve existing water connections during a Stage 3 Water Shortage Emergency. As required by the emergency permit conditions and applicable provisions of the Coastal Zone Land Use Ordinance, the CCSD submitted a regular follow-up Coastal Development Permit (CDP) on June 15, 2014. The County deemed this application incomplete with the understanding that the required information would be included in the CCSD's environmental document for the project. We look forward to working with the CCSD to develop a complete CDP application and a Final EIR that the County can rely on during the permitting process. **6-1**

Comments

Introduction and Purpose

Page 2-12 states that the North Coast Area Plan constitutes the County's General Plan Land Use and Circulation Elements for the North Coast Planning Area. Similar statements are made elsewhere in the document. The North Coast Area Plan is one part of the Land Use and Circulation Elements for the North Coast Planning Area. The other parts include the Coastal Framework for Planning, Coastal Plan Policies, and Official Maps. Any development in the North Coast Planning Area must be consistent with each of these documents as well as other elements of the County General Plan. **6-2**

Land Use and LCP Compliance

Page 5.6-11 references CZLUO Section CZLUO Section 23.04.050 (Non-agricultural uses in the Agriculture land use category). This section of the Draft SEIR only references subsections b-1 through b-4; however, the standard also includes subsections b-5 (Application content), b-6 (Site design and development standards), and b-7 (Guarantee of continuing agricultural or open space **6-3**

use). The Final EIR should describe the project's consistency with these standards. To demonstrate compliance with subsection b-6(ii), which states that no more than 2 percent of an Agriculture parcel may be used for a non-agricultural use, describe the total area of disturbance for the SWF, including the AWTP and all associated equipment and pipelines, and the existing percolation ponds. 6-3

In response to Coastal Streams LCP Policy 21 and Sensitive Habitats LCP Policy 1, the Draft SEIR states that the pipelines would be located within the minimum riparian setbacks and goes on to reference Section 23.07.172d.1.i, which allows for pipelines in the setback area provided that alternative routes are infeasible and adverse environmental effects are mitigated. The Draft SEIR should describe alternatives that were considered to avoid locating pipelines in riparian habitat areas. 6-4

As noted in the Draft SEIR, Section 23.08.288 (Public Utility Facilities) requires a feasibility analysis for projects that are located on prime soils or in environmentally sensitive areas. The Draft SIER should include this feasibility analysis to substantiate consistency with this and other related sections of the County's LCP. 6-5

As the proposed project is located in the Agriculture land use category, Section 5 (Land Use and LCP Compliance) should describe the project's compliance with the Agriculture LCP Policies, particularly Policy 3 (Non-agricultural uses). This analysis should consider all provisions of Agriculture Policy 3, including but limited to: feasibility of locating facilities on other than prime soils (the current site is located on prime soils); viability of parcel for agricultural use; and location of agricultural buffers as recommended by the Agricultural Commissioner's Office. Note this policy also requires applicants to establish an agricultural/open space easement for all undeveloped parts of the property. 6-6

Growth Inducing Effects

A stated project objective is to serve Cambria's planned buildout of 4,650 residential units. This would allow for 670 new connections from the CCSD wait list. The County's zero percent growth rate is reflective of the current resource constraint (water availability) that is proposed to be remedied by the project. As such, construction and implementation of the SWF would be the first in a series of actions that would ultimately allow construction of 670 new homes in Cambria. These new units would impact the Monterey pine forest, sensitive biological resources, archaeological resources, traffic levels of service, wastewater system capacities, etc. While the Draft SEIR briefly describes the impacts of this future development in the Other CEQA Considerations / Growth Inducing Impacts section, it does not evaluate the impacts of new growth in each of the environmental issue areas. 6-7

Also, the Growth Inducing section states that all future development in Cambria would be subject to separate environmental review under CEQA. While there is a low threshold for triggering discretionary (and hence CEQA) review on projects in Cambria, there are areas (such as Marine Terrace) where new development may be approved with ministerial approval and no CEQA review.

The CCSD might consider relying on the EIR for the Cambria and San Simeon Community Plan update for an analysis of the environmental effects of buildout.

Again, thank you for this opportunity to comment. We look forward to working with the CCSD to complete the permitting and environmental review process on this project. Please let me know if you have any questions about these comments. 6-8

Sincerely,

Airlin M. Singewald
Senior Planner

RESPONSE TO COMMENT LETTER NO. PA-6
Airlin M. Singewald, Senior Planner
San Luis Obispo County Department of Planning and Building
October 26, 2016

PA 6-1 This comment provides introductory statements, and background of the permitting history with the County of San Luis Obispo. No further response is necessary.

PA 6-2 Comment is so noted. To clarify the North Coast Area Plan's (NCAP) relationship to other County documents, DSEIR Page 2-12 is revised in the FSEIR as follows:

North Coast Area Plan. The NCAP was adopted by the SLO County Board of Supervisors on September 22, 1980 (Resolution 80-350) and subsequently revised on August 24, 2008. ~~The NCAP constitutes the County's General Plan Land Use and Circulation Elements for the NC Planning Area.~~ The NCAP is one part of the Land Use and Circulation Elements for the North Coast Planning Area (other parts include the Coastal Framework for Planning, Coastal Plan Policies, and Official Maps). Any development in the North Coast Planning Area must comply with each of these documents, as well as the other SLO County General Plan Elements. The NCAP describes County land use policies for the NC Planning Area, including regulations, which are also adopted as part of the Land Use Ordinances and Local Coastal Program. The NCAP allocates land use throughout the planning area by land use categories, which determine the varieties of land use that may be established on a parcel of land, as well as defining their allowable density and intensity. The NCAP is referenced for baseline data and RNC standards throughout this EIR.

DSEIR Page 3-24 is revised in the FSEIR as follows:

LAND USE DESIGNATIONS

The Project site is located in the North Coast (NC) Planning Area, within the Rural North Coast (RNC) community. The NC Planning Area is addressed in the NCAP~~, which constitutes the County's General Plan Land Use and Circulation Elements for the NC Planning Area. The NC Planning Area is entirely within California's Coastal Zone~~. The NCAP is one part of the Land Use and Circulation Elements for the North Coast Planning Area (other parts include the Coastal Framework for Planning, Coastal Plan Policies, and Official Maps). Any development in the NC Planning Area must comply with each of these documents, as well as the other SLO County General Plan Elements. The *Coastal Zone North Coast Planning Area Rural Land Use*

Category Map[14] separates the NC Planning Area into land use categories, which define regulations for land uses, density, and intensity of use. As shown on the Land Use Category Map, the Project site is designated Agriculture. The *Coastal Zone North Coast Planning Area Rural Combining Designation Map*[15] assigns Combining Designations to NC areas containing hazards, sensitive resource areas, environmentally sensitive habitat areas, historic and archaeologically sensitive areas, and public facilities. As shown on the Combining Designation Map, portions of the Project site are assigned the following Combining Designations:

DSEIR Page 5.6-4 is revised in the FSEIR as follows:

LOCAL

County of San Luis Obispo General Plan Land Use and Combining Designations

The Project site is located in the North Coast (NC) Planning Area, within the Rural North Coast (RNC) community. The NC Planning Area is addressed in the North Coast Area Plan (NCAP). ~~, which constitutes the County's General Plan Land Use and Circulation Elements for the NC Planning Area. The NC Planning Area is entirely within California's Coastal Zone.~~ The NCAP is one part of the Land Use and Circulation Elements for the North Coast Planning Area (other parts include the Coastal Framework for Planning, Coastal Plan Policies, and Official Maps). Any development within the NC Planning Area must comply with each of these documents, as well as other SLO County General Plan Elements. The *Coastal Zone North Coast Planning Area Rural Land Use Category Map*[16] separates the NC Planning Area into land use categories, which define regulations for land uses, density, and intensity of use. As shown on the Land Use Category Map, the Project site is designated Agriculture. The *Coastal Zone North Coast Planning Area Rural Combining Designation Map*[17] assigns Combining Designations to NC areas containing hazards, sensitive resource areas, environmentally sensitive habitat areas, historic and archaeologically sensitive areas, and public facilities. As shown on the Combining Designation Map, portions of the Project site are assigned the following Combining Designations:

[14] County of San Luis Obispo Website, http://www.slocounty.ca.gov/planning/zoning/Map_Image_Download_Center/Land_Use_Maps.htm, Accessed May 4, 2015.

[15] Ibid.

[16] County of San Luis Obispo Website, http://www.slocounty.ca.gov/planning/zoning/Map_Image_Download_Center/Land_Use_ Maps.htm, Accessed February 23, 2015.

[17] Ibid.

PA 6-3 Comment so noted. To clarify the relevant CZLUO §23.04.050 standards, DSEIR Page 5.6-11 is revised in the FSEIR as follows:

(4) Required findings: Supplemental non-agricultural uses may be established only if the following findings are made by the applicable approval body:

(i) For prime soils, it has been demonstrated that no alternative project site exists except on prime soils;
(ii) The least amount of prime soils possible will be converted; and
(iii) The proposed use will not conflict with surrounding agricultural lands and uses.

(5) Application content. In addition to the information required for a land use permit application by CZLUO Sections 23.02.033 et seq., the application for a supplemental non-agricultural use shall also include the following:

(i) The site layout plan shall identify all portions of the site that are undevelopable, that are not suitable for agriculture, or that are intended to be used for agricultural purposes.
(ii) Documentation which demonstrates that revenues to affected local governments as a result of the project will equal the public costs of providing and/or maintaining roads, water, sewer, fire and police protection to serve the project.
(iii) Documentation which demonstrates that the proposed project is designed and sited to protect habitat values and to be compatible with the rural character of the surrounding area.
(iv) Proposed provisions for public coastal access consistent with Local Coastal Plan policies for lateral and vertical access in agricultural areas, if the site is located between the first public road and the ocean.

(6) Site design and development standards. A land use permit for a supplemental non-agricultural use shall not be approved unless the proposed project will satisfy all the following requirements:

(i) Project location. The project shall be designed so that no development occurs on prime agricultural soils, except where it is demonstrated that all agriculturally unsuitable land on the site has been developed or cannot be used because of terrain constraints.
(ii) Limitation on project area. The total area of the site allocated for supplemental non-agricultural uses shall not exceed two percent of the gross site area.

(iii) Priority for agricultural use. The primary use of the site shall be the continuing, renewed or expanded production of food and fiber. The proposed supplemental use shall support, not interfere with, and be economically necessary to the primary use of the site as a productive agricultural unit.

(iv) Prevention of land use conflicts. The proposed use shall be designed to provide buffer areas between on- and off-site agricultural and non-agricultural uses to minimize land use conflicts.

(v) On-site water resources. Adequate water resources shall be available to the site, to maintain habitat values and serve both the proposed development and existing and proposed agricultural operations.

(vi) Urban services prohibited. No extension of urban sewer and water services shall be permitted to support on-site agricultural operations or other uses, except for reclaimed wastewater that may be used for agricultural enhancement.

(vii) Land division prohibited. The project shall not require land division.

(7) Guarantee of continuing agricultural or open space use. As a condition of approval of a supplemental non-agricultural use, the applicant shall insure that the remainder of the parcel(s) be retained in agriculture, and if appropriate, open space use by the following methods:

(i) Agricultural Easement. The applicant shall grant an easement to the county over all agricultural land shown on the site plan. Such easement shall remain in effect for the life of the non-agricultural use and shall limit the use of the land covered by the easement to agriculture, non-residential use customarily accessory to agriculture, farm labor housing, and a single-family dwelling accessory to the agricultural use.

(ii) Open space easement. The applicant shall grant an open space easement to the county over all lands shown on the site plan as land unsuitable for agriculture, not a part of the approved development or determined to be undevelopable. The open space easement shall remain in effect for the life of the non-agricultural use and shall limit the use of the land to non-structural, open space uses.

(iii) Procedures for agricultural or open space easements. Any easement required by this section shall be reviewed as set forth in CZLUO Section 23.04.420g(4).

To demonstrate Project consistency with relevant CZLUO §23.04.050 standards, DSEIR Page 5.6-41 is revised in the FSEIR as follows:

CZLUO Section 23.04.050 (Non-Agricultural Uses in the Agriculture Land Use Category). The Project site is designated AG. This section establishes permit requirements and standards for non-agricultural uses in the AG category. The SWF and Project modifications would be required to comply with all applicable standards for non-agricultural uses in the AG category prior to approval and issuance of the R-CDP.

- *Required Findings:* As shown on the Permit View NRCS [Natural Resources Conservation Service] Farmland Classification Map (see Section 8.1, *Agricultural and Forest Resources*), the western portions of the Project site are designated "Prime Farmland if Irrigated" and a small segment along the northern boundary is designated "Farmland of Statewide Importance." As discussed in detail in Section 7.5, *Alternatives Considered But Rejected*), various alternatives (including alternative sites) were rejected due to greater environmental impacts, and time and location constraints, among other factors. Therefore, no feasible alternative Project site exists. The SWF Project repurposes various existing infrastructure, including the Van Gordon Reservoir, to facilitate its timely completion, minimize its footprint, minimize its potential impacts (including to ESHA), and convert the least amount of prime soils. Given the distance that exists between the Project components and surrounding agricultural lands, the Project would not conflict with surrounding agricultural uses. Therefore, the Project satisfies the required findings.

- *Site Design and Development Standards:* Although Prime Farmland if Irrigated and Farmland of Statewide Importance are present on the Project site, the Project's design locates Project components in previously disturbed areas to avoid/minimize impacts to biological and cultural resources, to the maximum extent practicable. The Project site involves two parcels of land (APNs 013-051-024 and 013-051-008) that total approximately 96 acres. The Van Gordon Reservoir is an existing use that was repurposed for the SWF Project. Excluding the existing approximately 3.0-acre reservoir, the Project site would total approximately 93 acres. The site area allocated to the Project components totals approximately 1.73 acres, which would be below the 2.0 percent (approximately 1.86 acres) site area limitation. The Project site is not currently used for agricultural production. The site has been in public utility use since 1979 when the CCSD constructed its San Simeon well field and treated wastewater effluent disposal system. Therefore, the Project would not interfere with continuation of any agricultural activity. The SWF is buffered/separated from nearby agricultural uses by San Simeon/Monterey Creek Road and the AWTP is located approximately 0.45 mile from the nearest agricultural use. Further, as concluded in Sections 5.1 through 5.7, and Section 8.0, following compliance with the established regulatory framework and implementation of the specified mitigation measures, the Project would result in less than significant impacts concerning environmental factors that influence land use compatibility, including aesthetics, noise, and traffic, among others. Therefore,

minimizes potential land use conflicts with nearby agricultural and non-agricultural land uses. As discussed in detail in Section 5.3.5, *Impacts and Mitigation Measures*, based on the GMR's and Technical Memorandum's findings, while the SWF is operating, the Project design feature's 100 gpm filtrate product water flow to San Simeon Creek Lagoon would maintain lagoon water levels. Further, with implementation of Mitigation Measure BIO-7, the lagoon and creek habitats would be protected, and by extension, the species that inhabit them. With mitigation, Project impacts to biological resources would be reduced to less than significant. Therefore, adequate water resources would be available to the Project site to maintain habitat values. As concluded under Impact 5.6-4, Compliance with the Coastal Zone Land Use Ordinance, the Project is an allowable use in the AG land use category. The Project site contains CCSD water facilities, thus, is consistent with the "Public Utility Facilities [J5]" land use definition. Per *Coastal Zone Framework for Planning* Table O, Public Utility Facilities on sites designated AG category are "S-13" status, indicating the land use is a special use, allowable subject to special standards/processing requirements. The Project requires a Regular Coastal Development Permit (R-CDP). Therefore, the Project complies with the Site Design and Development Standards.

- *Guarantee of Continuing Agricultural or Open Space Use.* The site has been in public utility use since 1979 when the CCSD constructed its San Simeon well field and treated wastewater effluent disposal system. No portion of the parcel is presently in agricultural use, or has been in agricultural use for at least 38 years. Therefore, there is no need to ensure that the remainder of the parcel(s) not occupied by the Project be retained in agriculture and the Project complies with the Guarantee of Continuing Agricultural or Open Space Use standard.

Consistency with the applicable ~~requirements~~ standards would be confirmed through the R-CDP application process.

PA 6-4 To further clarify the alternatives that were considered to avoid locating pipelines in riparian habitat areas, DSEIR page 5.6-29 is revised in the FSEIR as follows:

As discussed in Response to Sensitive Habitats Policy LCP 1, the SWF's product water, filtrate, and RO concentrate disposal pipelines, and MW-4, the Project modifications' potable water pipeline 2 and the surface water pipeline, and filtrate pipeline extension and surface discharge, as well as the construction laydown areas, are within the riparian setback. CZLUO Section 23.07.174.d.1 specifies that permitted uses within the required setback are as specified in CZLUO Section 23.07.172d.1.i, which include utility lines and pipelines, provided it can be demonstrated that: alternative routes are infeasible or more environmentally damaging; and adverse environmental effects are mitigated to the maximum extent feasible. The SWF's

product water, filtrate water, RO concentrate disposal pipelines, the Project modifications' potable water pipeline 2 and the surface water pipeline, and filtrate pipeline extension and surface discharge, as well as the construction laydown areas are limited to utility lines/pipelines, thus, are permitted within the required setback. As discussed in detail in Section 7.5, *Alternatives Considered But Rejected*), various alternatives (including alternative sites) were rejected due to greater environmental impacts, and time and location constraints, among other factors. Therefore, no feasible alternative Project site exists. The SWF Project repurposes various existing infrastructure, including the Van Gordon Reservoir, to facilitate its timely completion, minimize its footprint, minimize its potential impacts (including to ESHA), and avoid/minimize impacts to riparian habitat. Moreover, the pipeline alignments were determined based on the shortest distance between the two points that avoided both the riparian tree line to the maximum extent practicable, and avoided the existing cultural resources, as discussed in detail in Section 5.4, *Cultural Resources*. The vast majority (approximately 90 percent) of the SWF conveyance piping was installed above grade to minimize disturbance. Additionally, horizontal directional drilling construction was used to install SWF pipeline reaches under Van Gordon Creek without disturbing the ground surface, with entrance and exit pits located outside of the riparian tree drip line. Thus, the SWF was designed and located to avoid significant disruption to riparian areas. Options considered but rejected concerning locating pipelines in riparian areas involved use of traditional open trench drilling. However, this was considered invasive, and construction and horizontal directional drilling construction was used instead. As discussed in Response to Policy LCP 1, the adverse environmental effects to riparian vegetation are mitigated to the maximum extent feasible. Overall, the Project was designed and located in a manner which avoids any significant disruption or degradation of ESHA, including riparian habitat. Thus, the Project would be consistent with LCP 21.

PA 6-5 See Response PA 4-30 concerning Project consistency with CZLUO §23.08.288.

PA 6-6 To further clarify Project consistency with Agriculture LCP Policy 3, DSEIR page 5.6-8 is revised in the FSEIR as follows:

Policy 28 *Buffer Zone for Riparian Habitats*. In rural areas (outside the USL) a buffer setback zone of 100 feet shall be established between any new development (including new agricultural development) and the upland edge of riparian habitats. In urban areas this minimum standard shall be 50 feet except where a lesser buffer is specifically permitted. The buffer zone shall be maintained in natural condition along the periphery of all streams. Permitted uses within the buffer strip shall be limited to passive recreational, educational, or existing nonstructural agricultural developments in accordance with adopted best management practices. Other uses that may be found appropriate are limited to utility lines, pipelines, drainage and

flood control facilities, bridges and road approaches to bridges to cross a stream and roads when it can be demonstrated that: 1) alternative routes are infeasible or more environmentally damaging and 2) adverse environmental effects are mitigated to the maximum extent feasible. Lesser setbacks on existing parcels may be permitted if application of the minimum setback standard would render the parcel physically unusable for the principal permitted use. In allowing a reduction in the minimum setbacks, they shall be reduced only to the point at which a principal permitted use (as modified as much as is practical from a design standpoint) can be accommodated.

AGRICULTURE

The Coastal Act also requires protection non-prime agricultural land wherever feasible (30242). To achieve these goals, the Coastal Act requires each local government to address protection of agricultural areas through the designation of appropriate land uses and management techniques in the Local Coastal Program. The following agriculture-related LCP policy is relevant to the Project:

Policy 3 *Non-Agricultural Uses.* In agriculturally designated areas, all non-agricultural development which is proposed to supplement the agricultural use permitted in areas designated as agriculture shall be compatible with preserving a maximum amount of agricultural use. When continued agricultural use is not feasible without some supplemental use, priority shall be given to commercial recreation and low intensity visitor-serving uses allowed in Policy 1.

Non-agricultural developments shall meet the following requirements:

a. No development is permitted on prime agricultural land. Development shall be permitted on non-prime land if it can be demonstrated that all agriculturally unsuitable land on the parcel has been developed or has been determined to be undevelopable.

b. Continued or renewed agricultural use is not feasible as determined through economic studies of existing and potential agricultural use without the proposed supplemental use.

c. The proposed use will allow for and support the continued use of the site as a productive agricultural unit and would preserve all prime agricultural lands.

d. The proposed use will result in no adverse effect upon the continuance or establishment of agricultural uses on the remainder of the site or nearby and surrounding properties.

e. Clearly defined buffer areas are provided between agricultural and non-agricultural uses.

f. Adequate water resources are available to maintain habitat values and serve both the proposed development and existing and proposed agricultural operations.

g. Permitted development shall provide water and sanitary facilities on-site and no extension of urban sewer and water services shall be permitted, other than reclaimed water for agricultural enhancement.

h. The development proposal does not require a land division and includes a means of securing the remainder of the parcel(s) in agricultural use through agricultural easements. As a condition of approval of non-agricultural development, the county shall require the applicant to assure that the remainder of the parcel(s) be retained in agriculture and, if appropriate, open space use by the following methods:

- Agricultural Easement. The applicant shall grant an easement to the county over all agricultural land shown on the site plan. This easement shall remain in effect for the life of the non-agricultural use and shall limit the use of the land covered by the easement to agriculture, non-residential use customarily accessory to agriculture, farm labor housing and a single-family home accessory to the agricultural use.

- Open Space Easement. The applicant shall grant an open space easement to the county over all lands shown on the site plans as land unsuitable for agriculture, not a part of the approved development or determined to be undevelopable. The open space easement shall remain in effect for the life of the non-agricultural use and shall limit the use of the land to non-structural, open space uses.

[THIS POLICY SHALL BE IMPLEMENTED PURSUANT TO CZLUO SECTION 23.04.050.]

To further clarify Project consistency with Agriculture LCP Policy 3, DSEIR Table 5.6-1, *Coastal Act and Local Coastal Plan Consistency*) (DSEIR Page 5.6-18) is revised in the FSEIR as follows:

Coastal Act Policy	LCP Policy
Land Resources	
§30241 Prime Agricultural Land; Maintenance In Agricultural Production: The maximum amount of prime agricultural land shall be maintained in agricultural production to assure the protection of the areas' agricultural economy, and conflicts shall be minimized between agricultural and urban land uses through all of the following: a) By establishing stable boundaries separating urban and rural areas, including, where necessary, clearly defined buffer areas to minimize conflicts between agricultural and urban land uses. b) By limiting conversions of agricultural lands around the periphery of urban areas to the lands where the viability of existing agricultural use is already severely limited by conflicts with urban uses or where the conversion of the lands would complete a logical and viable neighborhood and contribute to the establishment of a stable limit to urban development. c) By permitting the conversion of agricultural land surrounded by urban uses where the conversion of the land would be consistent with Coastal Act §30250. d) By developing available lands not suited for agriculture prior to the conversion of agricultural lands. e) By assuring that public service and facility expansions and nonagricultural development do not impair agricultural viability, either through increased assessment costs or degraded air and water quality. f) By assuring that all divisions of prime agricultural lands, except those conversions approved pursuant to subdivision (b), and all development adjacent to prime agricultural lands shall not diminish the productivity of such prime agricultural lands.	LCP 38: Non-Agricultural Uses. In agriculturally designated areas, all non-agricultural development which is proposed to supplement the agricultural use permitted in areas designated as agriculture shall be compatible with preserving a maximum amount of agricultural use. When continued agricultural use is not feasible without some supplemental use, priority shall be given to commercial recreation and low intensity visitor-serving uses allowed in Policy 1. Non-agricultural developments shall meet the following requirements: a. No development is permitted on prime agricultural land. Development shall be permitted on non-prime land if it can be demonstrated that all agriculturally unsuitable land on the parcel has been developed or has been determined to be undevelopable. b. Continued or renewed agricultural use is not feasible as determined through economic studies of existing and potential agricultural use without the proposed supplemental use. c. The proposed use will allow for and support the continued use of the site as a productive agricultural unit and would preserve all prime agricultural lands. d. The proposed use will result in no adverse effect upon the continuance or establishment of agricultural uses on the remainder of the site or nearby and surrounding properties. e. Clearly defined buffer areas are provided between agricultural and non-agricultural uses. f. Adequate water resources are available to maintain habitat values and serve both the proposed development and existing and proposed agricultural operations. g. Permitted development shall provide water and sanitary facilities on-site and no extension of urban sewer and water services shall be permitted, other than reclaimed water for agricultural enhancement. h. The development proposal does not require a land division and includes a means of securing the remainder of the parcel(s) in agricultural use through agricultural easements. As a condition of approval of non-agricultural development, the county shall require the applicant to assure that the remainder of the parcel(s) be retained in agriculture and, if appropriate, open space use by the following methods: • Agricultural Easement. The applicant shall grant an easement to the county over all agricultural land shown on the site plan. This easement shall remain in effect

Coastal Act Policy	LCP Policy
	for the life of the non-agricultural use and shall limit the use of the land covered by the easement to agriculture, non-residential use customarily accessory to agriculture, farm labor housing and a single-family home accessory to the agricultural use. • Open Space Easement. The applicant shall grant an open space easement to the county over all lands shown on the site plans as land unsuitable for agriculture, not a part of the approved development or determined to be undevelopable. The open space easement shall remain in effect for the life of the non-agricultural use and shall limit the use of the land to non-structural, open space uses.

To further clarify Project consistency with Agriculture LCP Policy 3, DSEIR Table 5.6-3, *LCP Consistency Analysis*) (DSEIR Page 5.6-31) is revised in the FSEIR as follows:

Policy #	Policy	Determination of Consistency
Terrestrial Environments		
LCP 29	Protection of Terrestrial Habitats. Designated plant and wildlife habitats are environmentally sensitive habitat areas and emphasis for protection should be placed on the entire ecological community. Only uses dependent on the resource shall be permitted within the identified sensitive habitat portion of the site. Development adjacent to environmentally sensitive habitat areas and holdings of the State Department of Parks and Recreation shall be sited and designed to prevent impacts that would significantly degrade such areas and shall be compatible with the continuance of such habitat areas.	**Sustainable Water Facility, ~~and~~ Mitigation Measures, ~~(~~and Project Modifications~~)~~** Consistent: Refer to Response to Sensitive Habitats Policy LCP 1, above. As noted in Section 5.3, *Biological Resources*, terrestrial and marine habitat ESHA would not be impacted by the SWF and ~~Mitigation Measures (~~Project modifications~~)~~.
Non-Agricultural Uses		
LCP 3	In agriculturally designated areas, all non-agricultural development which is proposed to supplement the agricultural use permitted in areas designated as agriculture shall be compatible with preserving a maximum amount of agricultural use. When continued agricultural use is not feasible without some supplemental use, priority shall be given to commercial recreation and low intensity visitor-serving uses allowed in Policy 1. Non-agricultural developments shall meet the following requirements:	**Sustainable Water Facility, Mitigation Measures, and Project Modifications** Consistent: Policy LCP 3 is implemented through compliance with CZLUO Section 23.04.050 (Non-Agricultural Uses in the Agriculture Land Use Category). The Project site is designated AG. This section establishes permit requirements and standards for non-agricultural uses in the AG category. The SWF and Project modifications would be required to comply with all applicable standards for non-agricultural uses in the AG category prior to approval and issuance of the R-CDP. • Required Findings: As shown on the Permit View NRCS [Natural Resources Conservation Service] Farmland Classification Map (see Section 8.1, *Agricultural and*

Policy #	Policy	Determination of Consistency
	i. No development is permitted on prime agricultural land. Development shall be permitted on non-prime land if it can be demonstrated that all agriculturally unsuitable land on the parcel has been developed or has been determined to be undevelopable. j. Continued or renewed agricultural use is not feasible as determined through economic studies of existing and potential agricultural use without the proposed supplemental use. k. The proposed use will allow for and support the continued use of the site as a productive agricultural unit and would preserve all prime agricultural lands. l. The proposed use will result in no adverse effect upon the continuance or establishment of agricultural uses on the remainder of the site or nearby and surrounding properties. m. Clearly defined buffer areas are provided between agricultural and non-agricultural uses. n. Adequate water resources are available to maintain habitat values and serve both the proposed development and existing and proposed agricultural operations. o. Permitted development shall provide water and sanitary facilities on-site and no extension of urban sewer and water services shall be permitted, other than reclaimed water for agricultural enhancement. p. The development proposal does not require a land division and includes a means of securing the remainder of the parcel(s) in agricultural use through agricultural easements. As a condition of approval of non-agricultural development, the county shall require the applicant to assure that the remainder of the parcel(s) be retained in agriculture and, if appropriate, open space use by the following methods: • Agricultural Easement. The applicant shall grant an easement to the county over all agricultural land shown on the site plan. This easement shall remain in effect for the life of the non-agricultural use and shall limit the use of the land	*Forest Resources*), the western portions of the Project site are designated "Prime Farmland if Irrigated" and a small segment along the northern boundary is designated "Farmland of Statewide Importance." As discussed in detail in Section 7.5, *Alternatives Considered But Rejected*), various alternatives (including alternative sites) were rejected due to greater environmental impacts, and time and location constraints, among other factors. Therefore, no feasible alternative Project site exists. The SWF Project repurposes various existing infrastructure, including the Van Gordon Reservoir, to facilitate its timely completion, minimize its footprint, minimize its potential impacts (including to ESHA), and convert the least amount of prime soils. Given the distance that exists between the Project components and the surrounding agricultural lands, the Project would not conflict with surrounding agricultural uses. Therefore, the Project satisfies the required findings. • Site Design and Development Standards: Although Prime Farmland if Irrigated and Farmland of Statewide Importance are present on the Project site, the Project's design locates Project components in previously disturbed areas to avoid/minimize impacts to biological and cultural resources, to the maximum extent practicable. The Project site involves two parcels of land (APNs 013-051-024 and 013-051-008) that total approximately 96 acres. The Van Gordon Reservoir is an existing use that was repurposed for the SWF Project. Excluding the existing approximately 3.0-acre reservoir, the site area allocated to the Project components totals approximately 1.73 acres, which would be below the 2.0 percent (approximately 1.86 acres) site area limitation. The Project site is not currently used for agricultural production. The site has been in public utility use since 1979 when the CCSD constructed its San Simeon well field and treated wastewater effluent disposal system. Therefore, the Project would not interfere with continuation of any agricultural activity. The SWF is buffered/separated from nearby agricultural uses by San Simeon/Monterey Creek Road and the AWTP is located approximately 0.45 mile from the nearest agricultural use. Further, as concluded in Sections 5.1 through 5.7, and Section 8.0, following compliance with the established regulatory framework and implementation of the specified mitigation measures, the Project would result in less than significant impacts concerning environmental factors that influence land use compatibility, including aesthetics, noise, and traffic, among others. Therefore, minimizes potential land use conflicts with nearby agricultural and non-agricultural land uses. As discussed in detail in Section 5.3.5, *Impacts and Mitigation Measures*, based on the GMR's and Technical Memorandum's findings,

Policy #	Policy	Determination of Consistency
	covered by the easement to agriculture, non-residential use customarily accessory to agriculture, farm labor housing and a single-family home accessory to the agricultural use. Open Space Easement. The applicant shall grant an open space easement to the county over all lands shown on the site plans as land unsuitable for agriculture, not a part of the approved development or determined to be undevelopable. The open space easement shall remain in effect for the life of the non-agricultural use and shall limit the use of the land to non-structural, open space uses.	while the SWF is operating, the Project design feature's 100 gpm filtrate product water flow to the San Simeon Creek Lagoon would maintain lagoon water levels. Further, with implementation of Mitigation Measure BIO-7, the lagoon and creek habitats would be protected, and by extension, the species that inhabit them. With mitigation, Project impacts to biological resources would be reduced to less than significant. Therefore, adequate water resources would be available to the Project site to maintain habitat values. As concluded under Impact 5.6-4, Compliance with the Coastal Zone Land Use Ordinance, the Project is an allowable use in the AG land use category. The Project site contains CCSD water facilities, thus, is consistent with the "Public Utility Facilities [J5]" land use definition. Per *Coastal Zone Framework for Planning* Table O, Public Utility Facilities on sites designated AG category are "S-13" status, indicating the land use is a special use, allowable subject to special standards/processing requirements. The Project requires a Regular Coastal Development Permit (R-CDP). Therefore, the Project complies with the Site Design and Development Standards. • Guarantee of Continuing Agricultural or Open Space Use. The site has been in public utility use since 1979 when the CCSD constructed its San Simeon well field and treated wastewater effluent disposal system. No portion of the parcel is presently in agricultural use, or has been in agricultural use for at least 38 years. Therefore, there is no need to ensure that the remainder of the parcel(s) not occupied by the Project be retained in agriculture and the Project complies with the Guarantee of Continuing Agricultural or Open Space Use standard. Consistency with the applicable standards would be confirmed through the R-CDP application process.

PA 6-7 The Project's potential growth-inducing impacts are discussed in detail in DSEIR Section 6.3, *Growth-Inducing Impacts*; see also Response PA 4-32. To mitigate the WMP's potential growth-inducing impacts, the WMP PEIR incorporated a BRP, as the tool to cap the maximum number of water service connections within the CCSD service area to 4,650 existing and future (CCSD wait list) residential housing units; see also WMP PEIR Appendix 14.3, *Buildout Reduction Program Information*. The SWF Project subject of this EIR similarly relies on the BRP as a mitigation for addressing growth inducing impacts. The WMP PEIR conclusions are summarized where relevant throughout the SEIR.

The Project's water output is discussed on DSEIR Page 3-33. DSEIR Table 3-3, *AWTP Process Design Flows*, summarizes recoveries, waste flows, and treatment process capacities for MF and RO systems required to meet the target potable water

augmentation of 250 AFY (432,000 gpd over six months) and San Simeon Creek Lagoon water recharge of 81 AFY (144,000 gpd over six months). The water augmentation of 250 AFY was determined to meet the minimum capacity necessary to abate the water supply shortage and provide water supply to serve buildout at 4,650 dwelling units, which was evaluated in the WP PEIR. Water from the Project would be provided to both existing users and those properties on the CCSD wait list, to a maximum of 4,650 existing and future residential units (CCSD wait list). As discussed on DSEIR Page 6-7, BRP implementation serves as a tool to cap the maximum number of potential water service residential connections within the CCSD service area. The water supply associated with the Project is needed to meet water demands during drought conditions and improve overall water supply reliability. The Project implements the facility improvements identified within the WMP and does not modify the development limitations established in the BRP. Development in Cambria is also subject to review (through SLO County's established development review process) for consistency with Title 26 (Growth Management Ordinance) (GMO).

PA 6-8 This comment serves as the conclusion to the comment letter and requires no further response.

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October 27, 2016

Robert C. Gresens, P.E., District Engineer
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Subject: Draft Subsequent Environmental Impact Report for the Cambria Sustainable Water Supply Project, Cambria Community Services District San Simeon Creek and Lagoon, Van Gordon Creek – San Luis Obispo County
State Clearinghouse (SCH) No. 2014061073

Dear Mr. Gresens:

The California Department of Fish and Wildlife (Department) has reviewed the Draft Subsequent Environmental Impact Report (DSEIR) for the Cambria Sustainable Water Supply Project (Project). The DSEIR for the Project tiers from the Cambria Community Services District's (CCSD's) Water Master Plan Program Environmental Impact Report, which was certified by CCSD in 2008. The Project is located at the CCSD's existing San Simeon well field and percolation pond system property (Assessor's Parcel Numbers [APNs] 013-051-008 and 013-051-024). The Project is designed and constructed to treat brackish water using advanced treatment technologies and recharge the CCSD's San Simeon well field aquifer with advance treated water. The brackish water source is a combination of diluted seawater that occurs from the subterranean dispersion of salts from a deeper saltwater wedge into an overlying freshwater interface zone, San Simeon Creek subsurface flow (creek underflow), and percolated treated wastewater effluent. 7-1

The Project, which was substantially completed in November 2014 and is currently operational, involves the construction and continual operation of the Sustainable Water Facility Project. The Project is capable of pumping up to 452 gallons per minute (gpm) of advance treated water into a re-injection well located a minimum of two months travel time from existing potable production Wells SS-1 and SS-2.

The Department provided comments dated April 6, 2015 on a prior Notice of Preparation (NOP) for the Cambria Emergency Water Supply Project (SCH No. 2014061073). Changes in the Project description between the NOP and DSEIR include

conversion of the evaporation pond to store potable water. A new (preferred) project alternative would dispose of the reverse osmosis (brine) concentrate by storage to Baker tanks and transport to Kettleman Hills. The preferred alternative also discusses the use of an ocean outfall to dispose of the brine concentrate. 7-1

Department Comments

Species and Habitat Impacts: The Project has likely already resulted in adverse impacts to fish and wildlife resources of the San Simeon Creek and lagoon and to Van Gordon Creek, including a reduction of instream flows needed to maintain fish and wildlife populations and related impacts to habitat within and adjacent to these streams and lagoons. The implementation of the Advanced Water Treatment Plant to treat brackish water, the disposal of brine solution into the Evaporation Pond, and the disposal of treated brackish water into San Simeon Creek have exposed fish and wildlife to chemicals and deleterious water quality. Project-site construction may have had additional impacts to fish and wildlife and their habitat. The changes in brine concentrate disposal could introduce additional impacts due to the potential for hazardous spills. The introduction of an ocean outfall to dispose of brine concentrate could also result in additional and substantial environmental impacts. 7-2

Changes to flow and water quality from construction and implementation of the facility may have substantially impacted the steelhead trout (*Oncorhynchus mykiss irideus*) in these streams. The South-Central California Coast Steelhead (SCCCS) Distinct Population Segment (DPS) is a State Species of Special Concern (SSSC) and is listed as threatened under the Federal Endangered Species Act (FESA), and San Simeon Creek is designated by FESA as critical habitat for the SCCCS DPS. The federally endangered and SSSC tidewater goby (*Eucyclogobius newberryi*) is known to inhabit the lagoon and some upstream reaches, and could be similarly affected by water diversions. Impacts from water diversions and water quality changes may adversely affect other special status species dependent upon San Simeon Creek and the associated lagoon and riparian corridor, including the SSSC and federally threatened California red-legged frog (*Rana draytonii*) and SSSC western pond turtle (*Emys marmorata*). The Department is concerned that the proposed Project may result in additional direct and cumulative adverse impacts to these and other valuable fish and wildlife resources supported by San Simeon Creek, Van Gordon Creek, and the associated riparian, upland, wetland, and lagoon/estuary habitats. 7-3

Prior California Environmental Quality Act (CEQA) Analysis: This Project has undergone prior environmental review and approval under CEQA and for different permit processes by various agencies. On April 22, 2014, the CCSD submitted an application to the San Luis Obispo County (SLO County) for an Emergency Coastal Development Permit (E-CDP). A Mitigated Negative Declaration (MND)) for this Project was submitted to the State Clearinghouse (SCH No. 2014061073) by CCSD on June 22, 2014. The purpose for the MND was to obtain a Regular Coastal Development 7-4

Permit (R-CDP) as required by SLO County. Pursuant to CEQA Section 21080(b) and CEQA Guidelines Section 15269(b)(c), on September 9, 2014 CCSD submitted a Notice of Exemption – Emergency Project to the State Clearinghouse (SCH No. 2014098136) that was approved by the Office of Planning and Research on September 12, 2014. CCSD was Lead Agency for the preparation of both the MND and Emergency Exemption.

The Office of Planning and Research's written concurrence with the Emergency Exemption stated that the Department had issued the necessary permits. This is incorrect. The Department had informed CCSD on multiple occasions that notification pursuant to Fish and Game Code Section 1602 would be warranted. CCSD notified the Department of pipeline installation; however, the notification file is suspended because work proceeded absent a Lake or Streambed Alteration Agreement (LSAA) or determination from the Department that no LSAA is needed. CCSD has therefore not yet obtained an LSAA from the Department for any portion of the Project. Please note that Condition 18 of Water Rights Permit 17287 states that in accordance with Fish and Game Code Section 1601 (now 1602), no water shall be diverted under this permit until the Department has determined that measures necessary to protect fish and wildlife resources have been incorporated into the plans and construction of such diversion. The Department has not yet made such a determination. **7-4**

Water Rights Discrepancies: The State Water Resources Control Board's (State Water Board) Order dated October 22, 1996, approved a new development schedule and amended Permit 17287 to read: "Complete application of the water to the proposed use shall be made on or before December 31, 2005." It is the Department's understanding from the State Water Board that CCSD did not fully develop the project and apply the water to the proposed use prior to December 31, 2005. It also does not appear that CCSD has petitioned for another extension of time for Permit 17287. Any petition for extension of time will require public noticing and is subject to protest. The Department's concerns regarding apparent water rights discrepancies are outlined below. **7-5**

The DSEIR states (page 3 to 7) that CCSD is able to pump a maximum of 1,118 acre-feet from the San Simeon and Santa Rosa groundwater basins during the wet season (November 1 to April 30) and a maximum of 630 acre-feet from those basins during the dry season (May 1 to October 31). These amounts appear to originate from the combined totals of Water Right Permit 20387 (Santa Rosa Creek) and Water Right Permit 17287 (San Simeon Creek), and assumes a maximum diversion of 860 acre-feet from San Simeon Creek during the wet season. Permit 17287 was allowed to expire before CCSD could perfect the full amount requested. According to the SWRCB, no more than 798 acre-feet per year may be diverted from San Simeon Creek under Permit 17287. From that total, CCSD cannot divert more than 370 acre-feet during the dry season.

In a separate 2006 settlement, CCSD must provide approximately 205 of its 798 acre-feet per year from the San Simeon basin to a neighboring property, reducing CCSD's maximum available volume to 593 acre-feet per year. These maximum available volumes are further reduced by other instream flow needs, such as those described below with regard to San Simeon Creek bypass flows. 7-5

The DSEIR states (pages 3 to 33) that the Advanced Water Treatment Plant's feed water flow rate, diverted from Well 9P7, is 629 gpm during the six months of annual dry period operations. This proposed diversion rate would amount to approximately 500 acre-feet during that six-month time period. This is approximately 130 acre-feet more than the 370 acre-feet authorized in Water Right Permit 17287. Out of the proposed diversion of 629 gpm (500 acre-feet), CCSD expects to reinject up to 452 gpm of treated water into the aquifer (about 360 acre-feet over a six-month period) and divert 100 gpm (about 80 acre-feet total) into the San Simeon Creek Lagoon as mitigation flows. This leaves unspecified losses of process water of approximately 77 gpm (or about 60 acre-feet over six months). Of that volume, the CCSD proposes to produce about 300 gpm (or about 239 acre-feet over six months). 7-6

The Department recommends that the DSEIR clarify the discrepancies between the proposed annual diversion and that authorized in Permit 17287, including an accurate calculation of CCSD's basis of right for all proposed diversions from San Simeon Creek surface and subsurface flow. The discussion and analysis should also include diversions that have already occurred since CCSD began Project operation.

Riparian Water Rights: It is the Department's understanding following correspondence with representatives of CCSD and discussions with State Water Board staff that a portion of the water that will be extracted from Well 9P7, treated, re-injected at Well RIW1, and subsequently diverted by CCSD's production Wells SS-1 and SS-2 is derived from the subterranean flow of San Simeon Creek and will be extracted by Well 9P7 under the basis of a riparian right. Based on information obtained from San Luis Obispo County parcel maps, Well 9P7 appears to be located on APN 013-051-008, while Well RIW1 is located on APN 013-051-024 in close proximity to CCSD's production Wells SS-1 and SS-2. While APN 013-051-024 includes portions of San Simeon Creek and Van Gordon Creek, APN 013-051-008 is not adjacent to any watercourse and appears to be a non-riparian parcel. 7-7

Please clarify the location of the point of diversion, basis of right, place of use, and purpose of use for water diverted from Well 9P7. If that portion of water attributable to the subterranean flow of San Simeon Creek diverted by Well 9P7 is done under the basis of riparian right, a Statement of Diversion and Use would be filed with the State Water Board pursuant to Water Code Section 5100 *et seq.* Please include an accurate APN map overlay on an aerial map with Wells 9P7, RIW1, SS-1, SS-2 with the SDEIR.

San Simeon Creek Bypass Flows: The following table is from the *Final Report January 2014 San Luis Obispo County Regional Instream Flow Assessment*:

Environmental Water Demand (EWD), using steelhead as target species.

	Spring	***Summer***	***Notes***
EWD estimate from field assessment (p. 16)	1.50 cfs	0.50 cfs	Additional flows may be needed to provide suitable lagoon habitat during closed sandbar conditions.
Modeled EWD (p. 24):	1.6 cfs	0.5 cfs	
From Alley, 1992:			Adult upstream migration requires 21 to 67.5 cfs; post-spawning downstream migration requires 7.2 to 19 cfs; downstream juvenile and smolt migration requires 3.5 to 11 cfs.
Van Gordon (p. 24):	0.4	0.2	

7-8

Page 21 of the report states that "San Simeon Creek with a large drainage area, low gradient, and broad channel... requires more flow to provide sufficient velocity to meet minimum habitat requirements." The CCSD proposed Water Supply Project would extract 400 (0.891 cfs) and would return 100 gpm (0.223 cfs) to the San Simeon Creek Lagoon as mitigation flows. To meet Summer EWD minimum, CCSD would need to return up to 0.5 cfs, or 224 gpm, assuming that none of the 224 gpm is lost to subsurface flows. If flows are to be measured at the Highway 1 Bridge (per the San Luis Obispo County Flow Assessment report), CCSD would likely need to return substantially more water to meet the recommended minimum flows.

CEQA Analysis and Baseline: Project components were constructed in advance of CEQA review and approval. Construction of the Project began on May 20, 2014, and was completed on November 14, 2014. Testing and commissioning of the completed facility began on December 8, 2014, and was completed on January 20, 2015, when Project operations began.

7-9

The Department recommends that the DSEIR include an accurate description of all Project development activities, a discussion regarding pre-existing grading and structural development in connection with Project design plans (including but not limited to the construction of the injection and monitoring wells), and an appropriate discussion of all biological resources located within the Project area identified through biological surveys, including resources in Santa Rosa Creek. The Department also recommends that the SEIR include a Project description sufficient to accurately identify impacts to wildlife species and habitat, and measures that would mitigate impacts to less-than-significant levels, including a discussion of potential impacts to sensitive species that may have already occurred as a result of previous unpermitted land disturbance activities in association with the Project.

Brine Discharge to the Ocean: The DSEIR does not include an analysis of offsite disposal of brine concentrate. The Department strongly recommends that the DSEIR analyze the impact of storage and transport to all potential disposal sites, including the hazards associated with accidental discharge during transport, and specifically describe the process and locations where brine solution would be discharged directly into the Pacific Ocean. 7-10

Department Jurisdiction

Responsible Agency Authority: The Department has regulatory authority over activities occurring in streams and lakes along with riparian habitat associated with and supported by watercourses, that could adversely affect any fish or wildlife resource, pursuant to Fish and Game Code Section 1600 *et seq.* If a Project could substantially divert or obstruct the natural flow of any river, stream or lake; substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake; or deposit or dispose of debris, waste, sediment, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake, notification of the lake or streambed alteration to the Department is required.

Notification pursuant to Fish and Game Code Section 1602 is also required for the substantial diversion of water from a jurisdictional feature, and consultation with the Department is recommended well in advance of Project implementation. The Department recommends that CCSD submit a Notification of Lake or Streambed Alteration to the Department to ensure compliance and to attain a Lake or Streambed Alteration Agreement (LSAA), if required. It is important to note that the Department is required to comply with CEQA in the issuance of an LSAA. For this particular Project, the Department would be acting as a Responsible Agency and would need to rely upon the CEQA document prepared for the Project. If the CEQA document prepared by the Lead Agency (CCSD) is insufficient for the Department to make its own Findings or Notice of Determination, the Department might need to assume the role of Lead Agency and prepare a subsequent CEQA document. Notification materials are available on the Department's website: https://www.wildlife.ca.gov/Conservation/LSA/Forms. 7-11

Bird Protection: The Department has jurisdiction over actions that may result in the disturbance or destruction of active nest sites or the unauthorized "take" of birds. Fish and Game Code sections that protect birds, their eggs and nests include, sections 3503 (regarding unlawful take, possession or needless destruction of the nest or eggs of any bird), 3503.5 (regarding the take, possession or destruction of any birds-of-prey or their nests or eggs), and 3513 (regarding unlawful take of any migratory nongame bird). In the event that Project-related vegetation removal will occur, it is advised that appropriate avoidance and minimization measures for raptors and other nesting birds potentially present in the Project site vicinity be addressed in the SDEIR, including measures to prevent avian use of the brine evaporation pond should, in consultation with the Department. 7-12

The Department is aware the timeframe to provide comments on the DSEIR has passed. However, the Department anticipates the recommendations above will be beneficial and respectfully requests they be included in the final CEQA document prepared for this Project. If you have any questions regarding these comments, please contact Annette Tenneboe, Senior Environmental Scientist (Specialist), at (559) 243-4014 extension 231, by email at annette.tenneboe@wildlife.ca.gov, or by writing to the California Department of Fish and Wildlife at 1234 East Shaw Avenue, Fresno, California 93710. 7-13

Sincerely,

Julie A. Vance
Regional Manager

ec: Cambria Community Services District
Jerry Gruber, General Manager, jgruber@cambriacsd.org

California Coastal Commission
Tom Luster, Tom.luster@coastal.ca.gov

Department of Parks and Recreation
Doug Barker, Doug.barker@parks.ca.gov

State Water Resources Control Board
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California Department of Fish and Wildlife
Joshua Grover
Linda Connolly
Annee Ferranti
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Eric Wilkins

RESPONSE TO COMMENT LETTER NO. PA-7
Julie A. Vance, Regional Manager
California Department of Fish and Wildlife
October 27, 2016

PA 7-1 This comment provides introductory statements, and a summary of the proposed Project. No further response is necessary.

PA 7-2 The DSEIR evaluates the environmental impacts, both short-term construction-related and long-term operational, of all Project components, including the SWF and Project Modifications. DSEIR Section 5.3, *Biological Resources*, evaluates the Project's potential impacts to biological resources, including impacts to fish and wildlife resources, and their habitats. See Responses PA 3-4, PA 4-7, PA 4-8, and PA 4-12 concerning the Project Design Feature's (PDF) approximate 100 gpm filtrate product water flow to San Simeon Creek Lagoon. See DSEIR Section 8.5 and Response PA 4-15 concerning potential Project impacts, including potential hazardous materials spills associated with the routine transport, use, and disposal of hazardous materials. The Project does not propose an ocean outfall to dispose of RO concentrate, however, does analyze this as a Project Alternative; see also DSEIR Section 7.3, *"RO Concentrate Ocean Outfall Disposal" Alternative*, and Responses PA 4-33 and PA 4-34, concerning the RO Concentrate Ocean Outfall Disposal Alternative.

PA 7-3 This comment states that the Project may have already "substantially impacted" steelhead, tidewater goby, California red-legged frog, and western pond turtle by creating changes in flow and in water quality and by creating water diversions. Potential Project impacts (short-term construction and long-term operational) to these species and their habitats are discussed under DSEIR Impact 5.3-1, *Special-Status Plant and Wildlife Species*, and throughout DSEIR Section 5.3.5. Expanded discussions concerning these species are also provided in Responses PA 4-18, PA 4-20, and PA 4-23. See also Responses PA 3-4 and PA 4-12 concerning the PDF's approximate 100 gpm filtrate product water flow to San Simeon Creek Lagoon and the Project's AMP, and Response PA 7-2 concerning the DSEIR's analysis of the scope of potential Project impacts.

PA 7-4 As discussed on DSEIR Page 2-14, the Cambria Emergency Water Supply Project Initial Study/Mitigated Negative Declaration (RBF Consulting, June 20, 2014) (2014 IS/MND) was prepared to support a Regular Coastal Development Permit (R-CDP) for the emergency water supply project. Although circulated for public review, the CCSD Board did not consider adoption of the 2014 IS/MND. Subsequent to release of the 2014 IS/MND, the project was further modified and additional design features were added in response to NOP comment letters and consultation with public

agencies. The SWF Project subject of the SEIR is for a modified version of the project that was analyzed within the 2014 IS/MND.

The commentator, CDFW, indicates that a lake or streambed alteration agreement was required as a part of the Project but never obtained. Potential Project impacts concerning CDFW jurisdictional resources are discussed under DSEIR Impact 5.3-2, *Riparian Habitat or Other Sensitive Natural Community*, and DSEIR Impact 5.3-3, *Wetlands and Jurisdictional Waters*. The Project originally included a pipeline crossing of Van Gordon Creek that proposed traditional drilling and required an agreement. The SWF RO concentrate disposal and filtrate pipelines both cross under Van Gordon Creek. After consultation with the CDFW and the Army Corps of Engineers (ACOE), it was determined that horizontal directional drilling construction would be used to install these pipeline reaches under Van Gordon Creek without disturbing the ground surface. This pipeline installation was coordinated with the biological monitor with entrance and exit pits located outside of the tree drip line. Impacts to riparian vegetation along Van Gordon Creek were avoided. As a result, no lake or streambed alteration agreement was required for the SWF RO concentrate disposal and filtrate pipelines.

The SWF includes an above-ground pipeline to deliver approximately 100 gpm of filtrate product water from the AWTP to a surface discharge structure. The discharge structure is located just north of the San Simeon Creek treeline and dissipates velocity to create a sheet flow, prior to entering immediately upstream from the upper San Simeon Creek Lagoon. Mitigation Measure BIO-3 requires that the filtrate pipeline be extended to relocate the discharge point further south to the San Simeon Creek bank to more efficiently deliver surface water into San Simeon Creek to maintain water levels at San Simeon Creek Lagoon, while also addressing its potential interference with water samples pulled from existing monitoring well 16D1. Potential lagoon water filtrate pipeline extension impacts concerning CDFW jurisdictional resources are discussed under DSEIR Impact 5.3-2, *Riparian Habitat or Other Sensitive Natural Community*, and DSEIR Impact 5.3-3, *Wetlands and Jurisdictional Waters*. Mitigation Measure BIO-18 requires that the lagoon discharge structure be designed to avoid impacts to riparian habitat to the greatest extent feasible, and that the CCSD comply with all applicable local, state, and federal regulations concerning impacts to riparian habitat, including Clean Water Act (CWA) Sections 401 and 404, and/or CFW Code §1602. Finally, Mitigation Measure BIO-19 requires that the CCSD minimize the disturbance and removal of riparian vegetation, to the extent possible.

PA 7-5 See Responses PA 4-6, PA 4-7, and PA 4-8 concerning the PDF's approximate 100 gpm filtrate product water flow and Project AMP.

PA 7-6 See Response PA 7-5. See Response PA 4-6, PA 4-7, and PA 4-8. After extraction and treatment, the Project re-injects treated product water back into the San Simeon Creek aquifer. The existing CCSD potable well field pumps, which divert water for municipal use, are subject to State Water Resource Control Board diversion permitting requirements. While the SWF is operating, the CCSD potable well pumps are limited to 400 gpm to maintain a minimum subterranean travel time of 60 days from the re-injection well to the potable wells. When the SWF is in operation, the diversion from the San Simeon well field over a 184-day dry season would be approximately 358 AF, which is 12 AF less than the permit's 370 AF. This consists of the diversion from Wells SS1 or SS2, and water that is sent to the evaporation pond (the third stage RO reject water plus any clean in place water).

The following table summarizes maximum net diversion from the San Simeon Creek aquifer, while the SWF is operating.

Flow Stream	Gallons per Minute (GPM)	Maximum Summertime Acre-Feet (184 Days & 24/7 Operation)
Diversion by Wells SS1 or SS2	400	325
Third stage RO reject water to disposal (39 gpm) + clean in place water (1 gpm)	40	33
San Simeon Creek Aquifer Diversion Subtotal		*358*

From detailed geohydraulic analyses, it was determined that of the 452 gpm pumped into the reinjection well, approximately 40% would remain in the aquifer. Other ancillary flows, such as the microfilter backwash water and strainer backwash (approximately 31 gpm and 6 gpm, respectively) discharge into an existing percolation pond that is returned to the groundwater basin and not a diversion. The PDF approximate 100 gpm filtrate product water flow discharged to the head of San Simeon Creek Lagoon is a riparian water use and not a part of the CCSD's diversion permitted water.

PA 7-7 This comment is concerning riparian water rights (property lines and locations of the point of diversion). See related Responses PA 4-6, PA 4-7, and PA 4-8. The CCSD owns both APNs 013-051-008 and 013-051-024, which are riparian to the San Simeon Creek. The CCSD also commissioned a licensed surveyor to investigate the history of the property boundary of APN 013-051-024, which has San Simeon Creek along the south. This investigation concluded that, in this area, the parcel boundary should be the middle of San Simeon Creek.

PA 7-8 A detailed geohydraulic analysis was completed in determining the PDF's approximate 100 gpm filtrate product water flow rate to the San Simeon Creek Lagoon; see also PA Response 4-7. This is described within DSEIR *Appendix E-6*, *San Simeon Creek Flows – Technical Memorandum*, (TM) which concluded:

> *"Historical information available from monitoring and from the USGS 1988 study indicate that the lower reaches of San Simeon Creek do not have surface water flows during the critical summer period. Recharge to the basin occurs during the rainy season when San Simeon Creek flows, however, drainage of the basin occurs as subterranean flow, rather than as surface water flow. The 0.5 cfs environmental water demand recommended in the 2014 Stillwater Sciences report is not justified.*
>
> *The cited 2014 Stillwater and 2006 NOAA studies did not include specific analysis of the San Simeon Lagoon. CCSD anticipated the need to protect the sensitive habitat of the lagoon and incorporated a provision in their plan to provide mitigating flows to maintain the lagoon. Detailed analysis of required supplemental water to support the lagoon concluded that 100 gpm will improve protection of this area when the project is in operation, compared to a no project scenario."*

As discussed in Response PA 7-6, the maximum diversion occurring from operation of the SWF would be 358 acre-feet over a 184-day dry season. The majority of the AWTP effluent is either re-injected into the groundwater at a higher water quality or sent to the San Simeon Creek Lagoon.

PA 7-9 As discussed on DSEIR Page 3-14, the County issued an Emergency Coastal Development Permit (E-CDP) (ZON2013-00589), authorizing construction and operation of the emergency project on May 15, 2014; see Response PA 4-1 concerning the Project Description. As discussed on DSEIR Page 3-25, Project construction began in May 2014 and was substantially completed by November 2014; see also DSEIR Section 3.6, *Project Phasing and Construction Activities*. Production of advanced treated water began on January 20, 2015. The SWF has operated intermittently, since January 2015. Various operational mitigation measures were identified through the environmental analysis process to avoid/reduce environmental impacts resulting from SWF operations. Compliance with these operational mitigation measures would necessitate modifications to the SWF, including the evaporation pond, mechanical spray evaporators, and surface discharge to San Simeon Creek. Therefore, for purposes of the Project description and the analysis contained in the SEIR, the "Sustainable Water Facility" involves the built and operational Project components, whereas the "Mitigation Measures and Project modifications" involve proposed Project components, including those required for compliance with various SWF mitigation measures.

As discussed on DSEIR Page 5-1, "*Environmental Setting*" typically describes the physical environmental conditions in the vicinity of a project, as they exist at the time the Notice of Preparation (NOP) is published (the Project's NOP was published March 4, 2015). However, given the SWF was constructed in response to the CCSD Board of Directors' declared Stage 3 Water Shortage Emergency Condition, and since the Project was required to be constructed within 180 days from issuance of the Emergency Coastal Development Permit (E-CDP) (E-CDP Condition 5), the Project is unique involving environmental analysis after Project completion.[18] Therefore, the Environmental Setting instead describes the physical environmental conditions in the Project's vicinity, as they existed before construction of the SWF. Existing environmental baseline conditions are described in DSEIR Section 3.4, *Environmental Setting*, and in the *Environmental Setting* sections of each topical area; see DSEIR Sections 5.1 to 5.7. See DSEIR Section 5.3.1, *Environmental Setting*, for a description of biological resources located within the Project area.

PA 7-10 Offsite disposal of RO concentrate is addressed in DSEIR Section 3.5.2.6, *Offsite RO Concentrate Disposal*, which describes the proposed transport and disposal at the Kettleman Hills Hazardous Waste Facility. See Responses PA 4-15, PA 4-19, PA 4-30, PA 4-33, and PA 4-34 concerning potential impacts associated with the routine transport, use, and disposal of hazardous materials for the proposed Project and the RO Concentrate Ocean Outfall Disposal Alternative.

PA 7-11 See Response PA 7-4, concerning potential Project impacts to CDFW jurisdictional resources.

PA 7-12 Potential impacts to birds, including migratory birds, are discussed under DSEIR Impacts 5.3-1 and 5.3-4. Mitigation Measure BIO-16 requires a pre-construction bird survey within work areas and within 500 feet of the general construction zone.

PA 7-13 This CDFW comment has been noted, and comments have been incorporated into the FEIR, as appropriate.

[18] Construction of the emergency Project began on May 20, 2014 and was substantially completed on November 14, 2014. The construction phase was followed by an approximately two-month start-up period. Production of potable water began on January 20, 2015.

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Ventura Fish and Wildlife Office
2493 Portola Road, Suite B
Ventura, California 93003

IN REPLY REFER TO:
08EVEN00-2016-CPA-0157

November 2, 2016

Mr. Robert C. Gresens, P.E., District Engineer
Cambria Community Services District Planning Department
1316 Tamson Drive, Suite 201
Cambria, California 93428

Subject: Comments on the Cambria Community Services District Amended Notice of Availability of a Draft Subsequent Environmental Impact Report for the Cambria Sustainable Water Facility Project, Cambria, San Luis Obispo County, California

Dear Mr. Gresens:

We are responding to the Cambria Community Services District's (District) amended notice of availability of a draft subsequent environmental impact report (SEIR), dated October 3, 2016, and received in our office on October 5, 2016, for the Cambria Sustainable Water Facility Project, formerly known as the Cambria Emergency Water Supply Project (project) (Gresens 2016, Michael Baker International 2016). This project is located in Cambria, San Luis Obispo County, California. The District released this notice on August 31, 2016, in accordance with the California Environmental Quality Act (CEQA), CEQA guidelines, and local implementation procedures. The District is seeking comments and specific concerns related to the project and its effects on the environment. **8-1**

The federally endangered tidewater goby (*Eucyclogobius newberryi*) and the federally threatened California red-legged frog (*Rana draytonii*) and designated critical habitat for both species are present in the project area. Our concerns relate to the project's effects on these species and migratory birds. **8-2**

The U.S. Fish and Wildlife Service's (Service) responsibilities include administering the Endangered Species Act of 1973, as amended (Act), including sections 7, 9, and 10. Section 9 of the Act and its implementing regulations prohibit the taking of any federally listed endangered or threatened wildlife species. Section 3(19) of the Act defines take to mean to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. Service regulations (50 CFR 17.3) define harm to include significant habitat modification or degradation which actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering. Harassment is defined by the Service as an intentional or negligent action that creates the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavioral patterns, which include, but are not limited to breeding, feeding, or sheltering. The Act provides for civil and **8-3**

criminal penalties for the unlawful taking of listed wildlife species. Exemptions to the prohibitions against take may be obtained through coordination with the Service in two ways: (1) if a project is to be funded, authorized, or carried out by a Federal agency, and may affect a listed species, the Federal agency must consult with the Service pursuant to section 7(a)(2) of the Act; and (2) if a proposed project does not involve a Federal agency but may result in the take of a listed animal species, the project proponent should apply to the Service for an incidental take permit pursuant to section 10(a)(1)(B) of the Act. **8-3**

The project was designed and constructed to treat brackish groundwater using advanced treatment technologies to augment Cambria's potable water supply in response to the drought. Facilities include the extraction well, advanced water treatment plant, recharge injection well, evaporation pond and evaporators, lagoon surface discharge, monitoring wells, and five interconnecting pipelines. On January 30, 2014, because of the worsening drought and need to develop additional water supply, the District's board of directors approved proceeding with development of the project, which the board determined was statutorily exempt from CEQA under the emergency exemption provisions of CEQA. On May 15, 2014, the County of San Luis Obispo issued an emergency coastal development permit to the District to proceed with the construction and operation of the project. Construction began on May 20, 2014. **8-4**

The project was substantially completed in November 2014, and is currently operational, however, the SEIR includes future construction of additional modifications to the project. Also, the emergency permit included a condition that the District would subsequently apply for a regular coastal development permit. The District submitted an application for the regular coastal development permit on June 13, 2014. The timeline for the regular permit application was extended by the County to allow additional time for completion of the supporting environmental analyses described within the SEIR. Following completion of the SEIR's CEQA process, the District will update its June 13, 2014 regular coastal development permit application to include the project modifications described within the SEIR. **8-5**

On July 22, 2014, we issued a letter to the District, commenting on the notice of availability for the Initial Study/Mitigated Negative Declaration for the project (Service 2014). In that letter, we discussed that construction and operation of the facility may cause adverse impacts to tidewater gobies and California red-legged frogs, including reduction of surface flows in the estuary. We encouraged the District to thoroughly analyze the effects of the project on federally listed species prior to project initiation. We informed the District that a reduction in flows may result in take of listed species and that any such take would require either: (a) an exemption from the prohibitions against take in section 9 of the Act pursuant to section 7, or (b) a take authorization pursuant to section 10(a)(1)(B) of the Act. **8-6**

On February 12, 2015, we issued a letter to the District expressing our concerns regarding project-related impacts to federally listed species and the District's potential lack of compliance with the Act (Service 2015a). In this letter, we discussed a section 7 consultation for the project that was initiated and subsequently withdrawn, concerns that the project's brine pond was providing a potential attractive nuisance for migratory birds and California red-legged frogs, a frog exclusion fence that could be resulting in impacts to California red-legged frogs by **8-7**

obstructing their movement or making them vulnerable to predation or desiccation, and the District's adaptive management plan, which the Service had not reviewed. We requested the District describe how they had avoided take of federally listed species to date and avoidance measures planned during operations of the project. In addition, we requested the District allow time for our review and comments on the proposed adaptive management plan prior to implementing the plan. **8-7**

On February 20, 2015, we were notified that a duck of unknown species was found dead at the project's brine pond (M. Boggs, California Department of Fish and Wildlife, Office of Spill Prevention and Response, in litt. 2015). On March 11, 2015, we were notified that a dead killdeer (*Charadrius vociferus*) was found at the brine pond on March 10, 2015 (C. Cleveland, Cleveland Biological, in litt. 2015). The cause of death of these two birds was unknown, but a cable strung across the pond for plant operations appeared to be a potential hazard for bird strikes; the District later added reflective mylar tape to the cable to deter bird strikes. The District also proposed to add masted floats throughout the pond to provide additional deterrents (B. Gresens, Cambria Community Services District, in litt. 2015), however the floats were never installed. **8-8**

On February 27, 2015, the Central Coast Regional Water Quality Control Board (Water Board) issued a notice of violation to the District for violating numerous provisions of Water Board permits for the project (Water Board 2015). The violations included discharge into in an unauthorized location in Van Gordon Creek containing excessive levels of chlorine, brine drift outside of the surface impoundment lined area, and extensive erosion at the point of discharge. **8-9**

On April 6, 2015, we issued comments on the notice of preparation of a draft environmental impact report for the Cambria Emergency Water Supply Project (Service 2015b). We reiterated our concerns to date and stated our intention to comment on the draft SEIR. **8-10**

On April 14, 2016, Service biologists from the Ventura Fish and Wildlife Office and Region 8 Office of Migratory Birds conducted a site visit with District staff to discuss our concerns, view conditions at the desalination plant, and follow up on a recent debris removal action in San Simeon Creek. The District informed us that due to the expedited development of the desalination plant to address an emergency water crisis, environmental compliance and permitting had not been completed. The District further informed us that compliance would be completed after-the-fact, and that the draft SEIR would be available for public comment. **8-11**

The site visit included the aforementioned evaporation pond where migratory bird mortalities had been reported. At the time of our visit, the evaporation pond was holding water and a few species of water and shore birds were observed in and around the pond, including an active killdeer nest. The perimeter of the pond was enclosed by fencing to exclude wildlife from entering or digging under the pond. The majority of the fence was intact and functioning to prevent wildlife entry, however a portion of the fence along the gate to enter the pond was loose and provided access for small animals to enter. The cable that had been the suspected cause of bird mortalities was explained to be necessary to hold pumps in place when the desalination

plant is in operation. Because the facility does not operate year-round and was not in operation at the time of our visit, the cable had been removed.

We discussed the need for Endangered Species Act and Migratory Bird Treaty Act compliance with District staff, and reiterated that avoidance measures should be in place. The District informed us that a U.S. Army Corps of Engineers permit would be necessary to complete their long-term plan, and therefore, section 7 consultation would be forthcoming. In the meantime, the District would be using an adaptive management plan (AMP) that they felt included the necessary avoidance measures (RBF Consulting 2015). **8-11**

Comments on the Draft Subsequent Environmental Impact Report

The draft SEIR includes a project description and evaluates project impacts on federally listed species and their designated critical habitats. In an effort to reduce these impacts, avoidance and minimization measures have been proposed and/or implemented. However, we continue to have concerns about the potential of future project modifications and ongoing operations to have impacts to California red-legged frogs, tidewater goby, and their critical habitat. **8-12**

Section 3.6.3 of the draft SEIR discusses project modifications that are anticipated to begin in 2017. These modifications include general construction activities such as clearing, grading, excavating, trenching, horizontal directional drilling, pipe installation and/or relocation, placement of backfill, and installation of other limited equipment/improvements on structural footings and concrete housekeeping pads. These activities conducted within occupied habitat for tidewater goby and California red-legged frog are likely to impact the species and their critical habitat. We recommend that effects to species from ground disturbances and potential alteration of the lagoon be further analyzed and minimized.

Regarding the surface water discharge into San Simeon Creek, the SEIR states:

> "Direct impacts to tidewater goby/California red-legged frog are expected to be negligible during construction, since they would be limited to the ACB lining at the lagoon discharge structure of the San Simeon Creek channel banks. Specifically, construction-related direct impacts would involve making the area immediately surrounding the discharge temporarily uninhabitable by goby/California red-legged frog, if present in this area." **8-13**

We recommend further analysis and description of potential impacts to tidewater goby and California red-legged frogs, and a more specific description of how impacts to these species would be avoided and minimized.

Measure BIO-9 proposes that a Service approved biologist would relocate California red-legged frogs if they are likely to be killed or injured during work activities. Although relocation can be helpful in moving frogs out of harm's way, handling California red-legged frogs and conducting work activities that may kill or injure California red-legged frogs, would require either an **8-14**

exemption from the prohibitions against take in section 9 of the Act pursuant to section 7, or a take authorization pursuant to section 10 of the Act. 8-14

The evaporation pond is scheduled to be decommissioned and converted into a raw potable water supply storage basin. The decommissioning of the pond would include the removal of submersible evaporator pumps, pontoons, pump extraction cable, mechanical spray evaporators, electrical wiring, control panels, and sound enclosures. Removal of the pond and infrastructure will help to alleviate hazards to migratory birds and California red-legged frogs. We recommend the District continue to monitor the basin area for use by birds and California red-legged frogs, including whether frogs are in the area and impeded by fencing. Corrective measures should be outlined within the AMP for any activities that cause impacts to listed species. 8-15

In conclusion, we continue to encourage the District to follow through on compliance with the Act, either through section 7 or section 10 as described above, to address the ongoing impacts to listed species and designated critical habitats due to project activities. Additionally, we recommend the District engage the Service in the planning process for adaptive management of the site to ensure impacts are avoided and mitigated to the greatest extent possible. If you have any questions, please contact Lena Chang of my staff at (805) 644-1766, extension 302, or by electronic mail at lena_chang@fws.gov. 8-16

Sincerely,

for/ Stephen P. Henry
Field Supervisor

LITERATURE CITED

Gresens, B. 2016. Amended notice of availability of a draft subsequent environmental impact report and amended notice of public hearing for the Cambria Sustainable Water Facility Project, Cambria, California. Dated October 3, 2016.

Michael Baker International. 2016. Cambria Sustainable Water Supply Project subsequent environmental impact report. Prepared for the Cambria Community Services District, Cambria, California, by Michael Baker International, Irvine, California. Dated August 30, 2016.

RBF Consulting. 2015. Cambria Emergency Water Supply Project, San Luis Obispo County, California, adaptive management plan. Prepared for the Cambria Community Services District by RBF Consulting, Irvine, California. March 2015.

[Water Board] Central Coast Regional Water Quality Control Board. 2015. Notice of violation and water code section 13267, request for information: Cambria Community Services District. Central Coast Regional Water Quality Control Board, San Luis Obispo, California. Dated February 27, 2015.

In litteris

Boggs, M. 2015. California Department of Fish and Wildlife, Office of Spill Prevention and Response. Electronic mail regarding the notice of violation and other concerns at the Cambria Emergency Water Project site. Received February 20, 2015.

Cleveland, C. 2015. Cleveland Biological. Electronic mail reporting a dead killdeer at the Cambria Emergency Water Project site. Received March 11, 2015.

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[Service] U.S. Fish and Wildlife Service. 2014. Comments on the initial study/mitigated negative declaration for the Cambria emergency water supply project, Cambria, San Luis Obispo County, California. Ventura Fish and Wildlife Office, Ventura, California. Dated July 22, 2014.

[Service] U.S. Fish and Wildlife Service. 2015a. Comments on Endangered Species Act Compliance for the Cambria Community Services District Emergency Water Project, San Luis Obispo County, California. Ventura Fish and Wildlife Office, Ventura, California. February 12, 2015.

[Service] U.S. Fish and Wildlife Service. 2015b. Comments on the notice of preparation for a draft environmental impact report for the Cambria Community Services District Emergency Water Supply Project, Cambria, San Luis Obispo County, California. Ventura Fish and Wildlife Office, Ventura, California. Dated April 6, 2015.

8-17

RESPONSE TO COMMENT LETTER NO. PA-8
Henry P. Stephen, Field Supervisor
U.S. Fish and Wildlife Service
November 2, 2016

PA 8-1 This comment provides introductory statements. No further response is necessary.

PA 8-2 See Response PA 4-20 concerning potential impacts to listed species and their habitats, and Response PA 7-12 concerning potential impacts avian species, including migratory birds.

PA 8-3 See Responses PA 3-6, PA 4-12, and PA 4-17 through PA 4-20 concerning the Project's potential to result in a "take" of a listed wildlife species.

PA 8-4 This Comment summarizes the Project's background and permitting. No further response is necessary.

PA 8-5 This Comment summarizes the Project's background and permitting. No further response is necessary.

PA 8-6 See Response PA 7-4 concerning the earlier IS/MND and the E-CDP. See Responses PA 3-6, PA 4-12, and PA 4-17 through PA 4-20 concerning the Project's potential to result in a "take" of a listed wildlife species.

PA 8-7 See Response PA 4-20 concerning listed species and their habitats, and Responses PA 3-6, PA 4-12, and PA 4-17 through PA 4-20 concerning the Project's potential to result in a "take" of a listed wildlife species.

PA 8-8 Potential impacts to birds, including migratory birds, are discussed under DSEIR Impacts 5.3-1 and 5.3-4. Mitigation Measure BIO-16 requires a pre-construction bird survey within work areas and within 500 feet of the general construction zone.

PA 8-9 This comment notes the CCRWQCB's February 27, 2015 Notice of Violation. The CCSD has previously provided a detailed response to the Water Board on the comment's reference to this Notice. Since this time, the lagoon water blending line has been modified to include a dechlorination system, as well as an inline venturi aerator. This product water blending line was provided to allow adjusting the lagoon water quality, should such changes be needed in the future. Regarding the Project's mechanical evaporators and concerns over evaporator mist drift containment, the CCSD has since modified its operations and no longer operates the mechanical evaporators. The proposed Project modifications (Mitigation Measure AES-2) include

decommissioning the spray evaporators; thus, there would be no potential for mist drift.

PA 8-10 This comment notes USFW's April 6, 2015 response letter to the Notice of Preparation, which is included in DSEIR Appendix A, *Notice of Preparation, Project Information Packet/Environmental Checklist, and NOP Comment Letters*; see DSEIR Appendix A PDF Page 274.

PA 8-11 See Response PA 7-9 concerning the E-CDP and Response PA 8-8 concerning migratory birds. See Responses PA 3-4 and PA 4-12 concerning the Project Design Feature's (PDF) approximate 100 gpm filtrate product water flow to San Simeon Creek Lagoon and the Project's AMP, and Response PA 7-2 concerning the DSEIR's analysis of the scope of potential Project impacts.

PA 8-12 See Response PA 4-1 concerning the Project description.

PA 8-13 See Response PA 4-20 concerning listed species and their habitats.

To further clarify potential impacts to tidewater goby, DSEIR Page 5.3-56 is revised in the FSEIR as follows:

MITIGATION MEASURES AND (PROJECT MODIFCATIONS)

Project Modifications Direct and Indirect Impacts. The proposed Project modifications involve removing the surface discharge structure and extending the filtrate pipeline to relocate the discharge point further south to the San Simeon Creek bank. As discussed above, these Project modifications were recommended as Mitigation Measure BIO-3, in order to avoid biasing Well 16D1 water quality samples (as requested by the RWQCB) and more efficiently deliver surface water into San Simeon Creek to maintain water levels at San Simeon Creek Lagoon. At the relocated discharge point, ACB) (Armorflex) lining (approximately 87 SF) is proposed to protect the San Simeon Creek channel bank from erosion. Armorflex would allow for the continued growth of riparian vegetation, further protecting the channel from any potential erosion due to the 4-inch diameter lagoon water discharge. Direct impacts to tidewater goby are expected to be negligible during construction, since they would be limited to the ACB lining at the lagoon discharge structure of the San Simeon Creek channel banks. Specifically, construction-related direct impacts would involve making the area immediately surrounding the discharge temporarily uninhabitable by goby, if present in this area. However, direct impacts to tidewater goby are not expected during construction with the specified mitigation measures implemented, including installing an ACB lining at the lagoon discharge structure at the San Simeon Creek channel banks. Pre-construction surveys to ensure absence/flushing of individuals from the impact area, and the placement of exclusionary

barriers to prevent these species from entering areas where conditions are less habitable, would further minimize impacts to tidewater goby. Construction-related noise impacts at the creek are expected to be negligible, since they would be short-term and on the surface, out of the water. No nighttime construction activities are proposed; therefore, no light/glare impacts would occur.

The measures to avoid/minimize construction and operational impacts to tidewater gobies are discussed on DSEIR Pages 5.3-53 through 5.3-5.

PA 8-14 Mitigation Measure BIO-9, *CRLF Pre-Construction Survey*, is E-CDP Condition 13, which was imposed by SLO County. As presented in *Final Report - Biological Monitoring Services for Initial Ground-Disturbing Activities for San Simeon Creek Road Project*, (Cindy Cleveland and Julie Thomas, Senior Biologists, September 15, 2014) (see DSEIR Appendix E3, PDF Page 283). Pre-construction site surveys were conducted for the CRLF and none were present/observed.

PA 8-15 Until the Project modifications are implemented, the SWF Project is subject to compliance with all mitigation measures, including evaporation pond-related potential impacts to CRLF and avian species, as detailed in the DSEIR.

PA 8-16 See Responses PA 3-6, PA 4-12, PA 4-17 through PA 4-20, and PA 8-15 concerning the Project's potential to result in a "take" of a listed wildlife species, including CRLF. This Comment also requests that the CCSD engage the USFWS concerning the AMP planning process. See Response PA 4-5 concerning the AMP update.

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From: Luster, Tom@Coastal
To: Garcia, Rita
Cc: Bob Gresens
Subject: RE: CAMBRIA SUSTAINABLE WATER FACILITY FINAL SEIR
Date: Thursday, June 1, 2017 11:05:41 AM

Thanks very much, Rita and Bob. Could you also please send me a copy of (or a link to) the project's Adaptive Management Plan? I've seen it referenced several times but have not yet seen the actual document.

Thanks again,

Tom L.

From: Garcia, Rita [mailto:RGARCIA@mbakerintl.com]
Sent: Wednesday, May 31, 2017 4:35 PM
To: Luster, Tom@Coastal
Cc: Bob Gresens
Subject: CAMBRIA SUSTAINABLE WATER FACILITY FINAL SEIR

Dear Mr. Luster,

I am writing to you on behalf of the Cambria Community Services District (CCSD). In compliance with CEQA Guidelines Section 15088, *Evaluation of and Response to Comments*, the CCSD, as lead agency, has evaluated your agency's comments on the Draft SEIR. Your agency's comment letter and the CCSD's responses to your comments are attached herewith; see FSEIR *Section 12.3*. Additionally, a CD (containing Draft and Final SEIRs, and Appendices) was mailed to you today via overnight carrier. **9-1**

Please do not hesitate to contact me at 949.472.3505 or rgarcia@mbakerintl.com, or Robert C. Gresens, P.E., District Engineer, at 805.927.6223 or bgresens@cambriacsd.org, if you have any questions.

Best,

RG

Rita Garcia | Technical Manager
Planning/Environmental Sciences | Michael Baker International
****Please make note of my new address. Our telephone numbers will remain unchanged.****
5 Hutton Centre Drive, Suite 500 | Santa Ana | CA | 92707
o: 949.742.3505 | d: 949.472.3454 | c: 714.345.7482
Rgarcia@mbakerintl.com | www.mbakerintl.com

RESPONSE TO COMMENT LETTER NO. PA-9
Tom Luster, Senior Environmental Scientist
California Coastal Commission
June 1, 2017

PA 9-1 This correspondence from the California Coastal Commission (CCC) requests a copy of the Adaptive Management Plan (AMP). The AMP was provided to Mr. Tom Luster (CCC) on June 12, 2017. The AMP and associated Technical Memorandum are also attached herewith. As no significant environmental concerns are raised, no further response is required.

From: Luster, Tom@Coastal
To: Garcia, Rita
Cc: Bob Gresens
Subject: RE: CAMBRIA SUSTAINABLE WATER FACILITY FINAL SEIR
Date: Thursday, June 8, 2017 9:44:20 AM

Hi again,

I was hoping to get you comments by now on the FEIR and Responses, but haven't received the Adaptive Management Plan. Could you please send a copy or a link?

Thanks,

Tom L.

From: Luster, Tom@Coastal
Sent: Thursday, June 01, 2017 11:06 AM
To: 'Garcia, Rita'
Cc: Bob Gresens
Subject: RE: CAMBRIA SUSTAINABLE WATER FACILITY FINAL SEIR

Thanks very much, Rita and Bob. Could you also please send me a copy of (or a link to) the project's Adaptive Management Plan? I've seen it referenced several times but have not yet seen the actual document. **10-1**

Thanks again,

Tom L.

From: Garcia, Rita [mailto:RGARCIA@mbakerintl.com]
Sent: Wednesday, May 31, 2017 4:35 PM
To: Luster, Tom@Coastal
Cc: Bob Gresens
Subject: CAMBRIA SUSTAINABLE WATER FACILITY FINAL SEIR

Dear Mr. Luster,

I am writing to you on behalf of the Cambria Community Services District (CCSD). In compliance with CEQA Guidelines Section 15088, *Evaluation of and Response to Comments*, the CCSD, as lead agency, has evaluated your agency's comments on the Draft SEIR. Your agency's comment letter and the CCSD's responses to your comments are attached herewith; see FSEIR *Section 12.3*. Additionally, a CD (containing Draft and Final SEIRs, and Appendices) was mailed to you today via overnight carrier.

Please do not hesitate to contact me at 949.472.3505 or rgarcia@mbakerintl.com, or Robert C. Gresens, P.E., District Engineer, at 805.927.6223 or bgresens@cambriacsd.org, if you have any questions.

Best,

RG

10-1

Rita Garcia | Technical Manager
Planning/Environmental Sciences | Michael Baker International
****Please make note of my new address. Our telephone numbers will remain unchanged.****
5 Hutton Centre Drive, Suite 500 | Santa Ana | CA | 92707
o: 949.742.3505 | d: 949.472.3454 | c: 714.345.7482
Rgarcia@mbakerintl.com | www.mbakerintl.com

RESPONSE TO COMMENT LETTER NO. PA-10
Tom Luster, Senior Environmental Scientist
California Coastal Commission
June 8, 2017

PA 10-1 This correspondence from the CCC requests a copy of the Adaptive Management Plan. The AMP was provided to Mr. Tom Luster (CCC) on June 12, 2017. The AMP and associated Technical Memorandum are also attached herewith. As no significant environmental concerns are raised, no further response is required.

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From: Peter Sevcik
To: Bob Gresens
Cc: Mario Iglesias
Subject: RE: Production Meter Calibration
Date: Monday, June 12, 2017 5:19:07 PM
Attachments: image001.png

Bob,

We used to send out our mechanical well meters for testing but switched to mag meters within the last year. We used Tesco, 916-395-8800, to check the electronics on the mag meters recently but did not perform volumetric tests.

Peter V. Sevcik, P.E.
Director of Engineering and Operations

Nipomo Community Services District
Serving the Community Since 1965

P.O. Box 326
Nipomo, CA 93444-0326
(805) 929-1133
(805) 929-5090 fax
psevcik@ncsd.ca.gov

From: Bob Gresens [mailto:bgresens@cambriacsd.org]
Sent: Monday, June 12, 2017 12:15 PM
To: Mario Iglesias; Peter Sevcik
Cc: Carolyn Winfrey
Subject: RE: Production Meter Calibration

Thank you Mario and Peter,

Please also note that our production meters are mag meters.

Any leads for volumetric testing firms would be appreciated.

11-1

Kindest Regards,

Bob

Robert C. Gresens, P.E.
District Engineer
Cambria Community Services District
(US Postal address:) P.O. Box 65
(shipping/Federal Express only:) 1316 Tamsen Street, Suite 201
Cambria, CA 93428

Office: 805-927-6119
Mobile: 805-909-2210
Fax: 805-927-5584

From: Mario Iglesias [mailto:MIglesias@ncsd.ca.gov]
Sent: Monday, June 12, 2017 11:51 AM
To: Peter Sevcik <psevcik@ncsd.ca.gov>
Cc: Bob Gresens <bgresens@cambriacsd.org>
Subject: Production Meter Calibration

Peter,

Bob Gresens is with the Cambria CSD and is looking to get his production meters calibrated. I failed to ask if he were using mag or mechanical meters. Do you have the name of a company that tests these production meters that you can share with Bob? **11-1**

Best Regards,

Mario Iglesias
General Manager

Nipomo Community Services District
Serving the Community Since 1965

148 South Wilson Street
Nipomo, CA 93444-0326
(805) 929-1133
(805) 929-1932 fax
miglesias@ncsd.ca.gov

RESPONSE TO COMMENT LETTER NO. PA-11
Peter Sevick, Director
Nipomo Community Services District
June 12, 2017

PA 11-1 This correspondence confirms that the Nipomo Community Services District (NCSD) switched to magnetic meters within the last year. The NCSD specified the company they used to check the electronics on the meters but did not perform volumetric tests. As no significant environmental concerns are raised, no further response is required.

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From:	Tom Luster
To:	Bob Gresens; Garcia, Rita
Cc:	Airlin Singewald -- SLO County; Rokke, Jon@Waterboards; Tenneboe, Annette@Wildlife; Barker, Doug@Parks; McFarland, Scott@Waterboards; Amanda Rice (directorrice.ccsd@gmail.com) (directorrice.ccsd@gmail.com)
Subject:	Comments on CCSD proposed Final SEIR for water facility
Date:	Tuesday, June 13, 2017 9:34:19 AM
Attachments:	Comments on FSEIR and Responses June 2017.pdf

Hi Bob, Rita, and all,

Here are our comments on the proposed FEIR and Responses. I'd appreciate it if you would provide these to the CCSD Board for tomorrow's hearing.

Happy to answer questions,

Tom Luster

Tom Luster
California Coastal Commission
45 Fremont Street #2000
San Francisco, CA 94105
415-904-5248

http://www.coastal.ca.gov/

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12-1

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

June 13, 2017

Bob Gresens, P.E.
Cambria Community Services District
1316 Tamsen Street, Suite 201
Cambria, CA 93428

Rita Garcia
Michael Baker International
5 Hutton Centre Drive, Suite 500
Santa Ana, CA 92707

Re: Final Subsequent EIR and Responses to Comments for the Cambria Community Services District ("CCSD") proposed Sustainable Water Facility

Via Email: bgresens@cambriacsd.org and Rgarcia@mbakerintl.com

Dear Mr. Gresens and Ms. Garcia:

We have reviewed the CCSD's proposed Final Subsequent EIR ("FSEIR") and Responses to Comments for the proposed Sustainable Water Facility ("SWF"). We continue to have concerns about the completeness and accuracy of several of the analyses provided in these documents, particularly those needed to evaluate whether the proposed project is consistent with relevant policies of the San Luis Obispo County Local Coastal Program ("LCP"). **12-2**

We have provided detailed descriptions of several of our main concerns below. We acknowledge that some of these issues may be addressed in the proposed Adaptive Management Plan that was referenced throughout the FSEIR, but we didn't receive our requested copy of that Plan until last night and were therefore not able to fully review and comment on it within your requested 10-day comment period. Our brief review of that Plan shows that it does not adequately address most of our concerns. In order to provide comments in time to be considered as part of the CCSD Board deliberations at its June 14th meeting, we are providing these comments today on the FSEIR and Responses and will continue our review of the Plan.

The comments herein do not provide a complete set of concerns, but include those that we recommend be addressed through comprehensive revisions to the FSEIR. They include:

1) The document does not adequately evaluate known or likely impacts to riparian, wetland, and stream areas designated under the LCP as sensitive habitat, and does not identify adequate mitigation measures to address those adverse impacts.
2) There does not appear to be sufficient water available to the CCSD to operate the project as proposed.
3) The project does not appear to be consistent with the LCP's flood hazard avoidance policies.

4) The project as evaluated in the FSEIR would not allow for the levels of growth anticipated in the document.
5) The FSEIR's described repurposing of the project's evaporation basin will create a wildlife hazard, but the document does not evaluate those hazards. The FSEIR description is also inconsistent with the CCSD's current proposal to address problems with the basin.[1]

Although we raised most of these concerns in our comments on the Draft SEIR, many of the Responses and FSEIR revisions were only partially responsive in addressing those comments. Without additional revisions, we will likely need to address these issues during the proposed project's coastal development permit ("CDP") review process or the potential appeal of a CDP to the Coastal Commission. Additionally, because resolving some of these issues will rely not just on determining LCP conformity but also on the outcome of the State Water Board's licensing decision on the CCSD's water rights permit, we recommend the results of that licensing review be used as the basis for revised CEQA analyses.[2] 12-2

Key Concerns

Issue 1 – The document does not adequately evaluate known or likely impacts to riparian, wetland, and stream areas designated under the LCP as sensitive habitat and does not identify adequate mitigation measures to address those adverse impacts. The project would be located within and adjacent to sensitive habitat areas, much of it consisting of riparian, wetland, and stream habitat that also serves as designated critical habitat for several listed species. The FSEIR identifies some of the facility's likely effects on those habitat areas and the species that rely on them, related primarily to project operations causing reduced surface or subsurface water levels, but it does not adequately evaluate those effects or identify mitigation measures needed to avoid or minimize those effects. Examples include: 12-3

- **The volume and location of proposed mitigation flows would not avoid or minimize likely or identified habitat and species impacts.**[3] Our comment letter noted that the proposed project would draw down water levels in these habitat areas and that the proposed location of the project's mitigation water discharge of up to 100 gallons per minute ("gpm") would not provide the levels of protection required by relevant LCP policies. We recommended that the discharge point be located further upstream so it would provide flows to the area that is expected to experience reduced water levels and would better support the affected fish and wildlife habitat in San Simeon's lower basin.

[1] As noted above, our brief review of the recently received proposed Adaptive Management Plan does not address most of these concerns. For example, it does not describe or apply relevant LCP provisions to the proposed project, it does not ensure the project will include adequate mitigation measures, it does not address site and project inundation concerns or growth-related issues, and it does not address evaporation basin hazards.

[2] We understand the CCSD requested that the State Water Board conduct licensing review on the CCSD's Water Rights Permit #17287, which expired several years ago.

[3] Note: We were unable to find an explanation for the change from the Draft EIR's use of the term "mitigation flow" to the Final EIR's use of the term "MF filtrate flow." Regardless of the term used, it appears that the flow would be needed to mitigate for project impacts.

As noted in Response PA 4-25, the Draft SEIR identified likely reductions in water levels within areas of San Simeon Creek and its associated riparian habitat near the proposed extraction well, which is several hundred yards upstream of the proposed mitigation discharge location in San Simeon Creek Lagoon. This affected area is within designated habitat for at least two listed species – the Central Coast steelhead and the California red-legged frog. Responses PA 4-20 through 4-23 described some revisions to the Draft SEIR's analyses for those species, but these consisted primarily of additional descriptions of the proposed mitigation flows to the Lagoon several hundred yards downstream and statements that this discharge would be adequate to protect the species and their habitats. Response PA 4-13 stated that the purpose of the mitigation flows was to recharge potential groundwater extraction-related surface water drawdown within the San Simeon Creek Lagoon, and that siting the discharge point further upstream would not be practical, would not meet natural conditions, and would be infeasible. However, the Response did not provide additional analyses in support of these contentions and the relevant state and federal wildlife agencies have not concurred with them. The FSEIR therefore does not adequately address an identified adverse impact to sensitive habitat and listed species. **12-3**

- **The proposed mitigation flows do not appear adequate to provide consistency with the LCP or with existing water rights permit conditions:** Our comment letter noted that the Draft SEIR's analyses were not adequate to show whether the project would conform to relevant LCP stream and riparian habitat protection policies. We also noted specifically that the proposed mitigation flows appeared to be inconsistent with the CCSD's water rights permit, which requires that fish and wildlife riparian habitat be maintained in the lower basin of San Simeon Creek.

  Response PA 4-13 cited one condition of that permit and emphasized one phrase of that condition and suggested that it be interpreted in a manner not consistent with the rest of the condition or with other conditions of the permit. The Response cites Condition 16 as follows: **12-4**

  > "Permittee shall maintain water levels in the lower basin to sustain stream flow to the lagoon at the mouth of San Simeon Creek to maintain fish and riparian wildlife habitat." [emphasis added.]

  The Response does not address the condition's requirements related to maintaining water levels in the lower basin and to sustain riparian habitat. As noted elsewhere in our comment letter, the lower basin is described in USGS Report 98-4061[4] and extends several hundred yards upstream of the proposed discharge point, a stretch of San Simeon Creek with extensive riparian habitat. Both this Response and Response PA 4-16 propose redefining the lower basin to encompass a smaller area, and state that the lower basin reference was "taken out of context and confuses the separation of the underground groundwater basin with the extent of surface water." However, other descriptions of San

[4] Yates, Eugene, and Kathryn Van Konynenburg, *Hydrogeology, Water Quality, Water Budgets, and Simulated Responses to Hydrologic Changes in Santa Rosa and San Simeon Creek Ground-Water Basins, San Luis Obispo County, California*, for United States Geological Services.

Simeon Creek's lower basin for purposes of both surface waters and groundwaters encompass and extend beyond the several hundred yards described above.[5] Regarding the separation of the groundwater and surface water, we note first, that Condition 16 does not distinguish between surface and subsurface water levels, but requires only that "water levels" needed for fish and riparian wildlife habitat be maintained; and second, that the CCSD's water rights permit is for diversion of San Simeon Creek "underflow" – i.e., subsurface flows.

This proposed reinterpretation would also be inconsistent with other conditions of the permit. For example, Condition 17 requires the CCSD to "provide and operate as necessary, irrigation facilities to maintain riparian vegetation within District owned property." The District-owned property extends along the same several hundred yards upstream along the stream corridor, and includes the areas where the CCSD has identified expected project-related drawdowns that could adversely affect areas of riparian vegetation. Condition 18 of the permit prohibits the diversion of water until the California Department of Fish and Wildlife ("CDFW") determines that the CCSD has included measures necessary to protect fish and wildlife resources.[6] As stated in CDFW's comment letter on the Draft SEIR, the project has "likely already resulted in adverse impacts to fish and wildlife resources of the San Simeon Creek and lagoon and to Van Gordon Creek, including a reduction of instream flows..." The CCSD's response did not address the absence of the required determination from CDFW. **12-4**

We recommend the FSEIR be revised to more fully address these known and likely impacts along San Simeon Creek and that it more comprehensively identify the mitigation needed to avoid and minimize these impacts. As noted above, because resolution of some of these concerns will occur only through the State Water Board's licensing of the CCSD's water rights permit, we recommend that results of that review be used as the basis for the needed revisions.

Issue 2 – There does not appear to be sufficient water to the CCSD to operate the project as proposed. The FSEIR does not consistently describe or evaluate how much water is available for the proposed project or how it is to be used. As a result, it remains unclear how much water the CCSD is proposing to withdraw, divert, treat, discharge, or distribute as part of its proposed project and how much will be available to support the San Simeon Creek watershed's fish, wildlife, and habitat resources, pursuant to Coastal Act and Local Coastal Program requirements. It is also unclear when these withdrawals, diversions, treatments, discharges, and distributions are expected to occur. This uncertainty is based on a number of inconsistent descriptions and definitions in the FSEIR and Responses, including those shown below. **12-5**

[5] Along with USGS Report 98-4061, these include the CCSD's *Fiscalini Ranch EIR*, which describes the CCSD wells as being within the lower San Simeon Creek aquifer, San Luis Obispo County's most recent *Resource Summary Report*, which describes the CCSD's project as using water from the "lower San Simeon Creek aquifer," and a report by Rathbun et. al, *Status and ecology of sensitive aquatic vertebrates in lower San Simeon and Pico Creeks, San Luis Obispo County, California* (1993) that includes a map showing "lower San Simeon Creek" extending along this area.

[6] Per the State Water Board's Decision 1477, Conditions 16 through 18 are intended to mitigate the CCSD's impacts on the Central Coast steelhead, which, as noted above, has critical habitat that extends along this upstream corridor.

- Most of the FSEIR's analyses of expected water use are based on the CCSD proposing to operate the SWF for up to six months each year when there are not surface flows in lower San Simeon Creek. The FSEIR also states, however, that the facility could operate when the creek is flowing (see Section 3.5.2.2) or during the wet season (see Section 5.5), but it does not provide the analyses needed to evaluate the potential impacts that would accompany these longer-term operations. The FSEIR also does not describe how these longer operations would be consistent with the seasonal limitations of the CCSD's existing water use limitations under the LCP or its water rights permit.

- The FSEIR and the Responses describe the CCSD as having a licensed diversion of 798.82 acre-feet per year ("AFY") from the underflow of San Simeon Creek (through Water Rights Permit #17287). This water volume appears to serve as the basis for many of the CCSD's analyses; however, this volume has not yet been licensed and is subject to change pending State Water Board consideration of the CCSD's request to license that permit.[7]

- The FSEIR and the Responses are also inconsistent about which proposed water uses the CCSD considers "diversions"[8] under its water rights permit and which ones it considers to be separate from that permit. For example, Response PA 4-6 states that water extracted and treated in the SWF is returned to the aquifer and is therefore not a diversion, but it also states that the re-injected water is part of the 798.82 AFY allowed under the water diversion permit. Response PA 4-6 acknowledges that the CCSD is required to provide up to 205 AFY to a neighboring property owner (through the 2006 Warren Settlement Agreement), but suggests that this 205 AFY is not part of the CCSD's diversion under the above-referenced permit, even though the Settlement Agreement is based on that permit. Response PA 4-7 states that the CCSD's proposed discharge of up to 100 gpm to the San Simeon Lagoon for habitat protection should not be considered a diversion, even though that proposed project component appears to fall within the above-referenced Water Code definition of "diversion." **12-5**

We recommend the CCSD provide a single table that identifies the water balance for the San Simeon watershed and its proposed project that fully accounts for the proposed volumes and sources of the various SWF-related withdrawals, diversions, etc., the timing of when these are expected to occur, and the assumptions and definitions used as the basis of these descriptions. At this point in our review, and from our own calculations, it appears that the proposed project may have significantly less water available to it than described in the FSEIR. Importantly, however, because many of the concerns and apparent inconsistencies about which uses and what volumes are considered diversions under the CCSD's water rights permit will be resolved through the State Water Board's licensing process that the CCSD started in 2015, we recommend the revised and certified FSEIR be based on the analyses conducted by the Water Board during that process.

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[7] PA 4-6 also refers to the CCSD having a "historically permitted" maximum diversion from San Simeon of 1,230 acre-feet per year. This is incorrect, since although the CCSD requested approval of that volume through Permit 17287, it never achieved the level of use required to perfect that amount.

[8] Water Code Section 5100(c) defines "diversion" as "taking water by gravity or pumping from a surface stream or subterranean stream flowing through a known and definite channel, or other body of surface water, into a canal, pipeline, or other conduit, and includes impoundment of water in a reservoir."

Issue 3 – The project does not appear to be consistent with the LCP's flood hazard avoidance policies. Our comment letter recommended the Draft SEIR be revised to more fully evaluate risks associated with potential flooding, tsunamis, and seiches, including an evaluation of the proposed project's conformity to LCP provisions that require locating such facilities outside of inundation areas where feasible. We also recommended the proposed project be evaluated for effects from a 500-year flood, as is generally required for critical facilities. The SWF was damaged during a January 2016 flood and then again during flooding in the winter of 2017.

While Responses PA 4-29 and 4-30 included some modifications to the FSEIR, those modifications did not address the LCP requirement that, where feasible, the facility is to be sited outside potential inundation areas and, if not feasible, it is to be protected from inundation. Regarding the 500-year flood requirement, Response PA 4-30 acknowledged that critical facilities receiving federal funding or permits are to either be sited outside the 500-year floodplain or be elevated to avoid inundation, but stated that the proposed project was not a critical facility. This is not consistent, however, with guidance documents relevant to the SWF that describe "drinking water facilities" as critical facilities that are to be protected from inundation.[9] It is also not consistent with the CCSD's previous characterizations of the facility as part of its "critical" water supply system, of the need for the facility to respond to current and future "critical" water supply shortages, etc. The Response also stated that the project would not need to function after a flood event, since it would be operating only during dry conditions when flooding would not occur. However, this is not consistent with other statements in the FSEIR that the project could operate during the wet season or when the creek is flowing. Finally, the Response acknowledged that the facility included chemical storage and noted that the CCSD would limit the amounts of chemicals on site, but did not identify how these chemicals would be protected from inundation. We again recommend that the document be revised to more fully evaluate how the facility can be modified to conform to relevant LCP provisions requiring protection from inundation. **12-6**

Issue 4 – The project evaluated in the FSEIR would not allow for the levels of growth anticipated in the document. Our comment letter noted that the Draft SEIR's growth-related analyses were inadequate because they assumed the facility could allow for growth over a 50- to 75-year period while also assuming it would have just a 20-year operating life. We recommended that the document be revised to either fully evaluate the proposed project's growth-inducing impacts and other effects over that full period or that it acknowledge the facility's expected 20-year operating life would not allow for the proposed amount of growth. Response PA 4-32 states only that our comment "does not take into account that facilities are replaced over time…" and did not provide any revisions. This is not an adequate response for determining whether the project might conform to LCP provisions related to growth, which require a comprehensive assessment of the availability of public resources and services, protection of habitat, and other similar evaluations. We again recommend the document be revised to either fully evaluate the expected growth-related impacts or that it acknowledge the project as currently proposed does not allow for growth. **12-7**

[9] See, for example, Executive Order #11988 and related guidance from the Federal Emergency Management Agency (FEMA) at: https://www.fema.gov/media-library-data/1436818953164-4f8f6fc191d26a924f67911c5eaa6848/FPM_1_Page_CriticalFacilities.pdf

Issue 5 – The FSEIR's described repurposing of the project's evaporation basin will create a wildlife hazard, but the document does not evaluate those hazards. The FSEIR description is also inconsistent with the CCSD's current proposal to address problems with the basin. The FSEIR proposes to change the project's existing evaporation basin to a surface water storage basin. The basin currently contains several hundred thousand gallons of brine and effluent from project operations, but is currently unable to operate and is the subject of a proposed cease and desist order from the Regional Board. The CCSD is required to remove the brine and effluent from the basin and recently proposed to the Board that the CCSD be able to truck the brine and effluent either to a Class II storage facility or to an already permitted ocean outfall able to accept the discharge. The FSEIR, however, states that the CCSD plans to allow the brine and effluent in the basin to "naturally evaporate" over several seasons until any remaining dry residue can be vacuumed out and taken to a Class II storage facility. The FSEIR does not address the discrepancy between its description and the CCSD's current proposal to the Regional Board. More importantly, the FSEIR does not evaluate the adverse impacts of having a surface water impoundment containing levels of contaminants that are toxic to avian wildlife and that would be accessible to birds for several years. We recommend the FSEIR be revised to correct this discrepancy and that it fully evaluate the potential impacts to wildlife and describe mitigation measures that would be taken to avoid and minimize these impacts.

12-8

Closing

Thank you for your attention to these concerns. As we have offered before, we are happy to recommend specific analyses or project changes that will likely be needed to ensure the facility is consistent with Coastal Act and LCP requirements.

Sincerely,

Tom Luster

Tom Luster
Energy, Ocean Resources, and Federal Consistency Division

cc: San Luis Obispo County – Airlin Singewald
State Water Board – Scott McFarland
Regional Water Board – Jon Rokke
CDFW – Annette Tenneboe
State Parks – Doug Barker

RESPONSE TO COMMENT LETTER NO. PA-12
Tom Luster, Senior Environmental Scientist
California Coastal Commission
June 13, 2017

PA 12-1 This comment provides general introductory statements to the letter. As no significant environmental concerns are raised, no further response is required.

PA 12-2 This comment provides general introductory statements to key concerns outlined further below in the letter. See the following for responses to these concerns.

PA 12-3 This comment provides general introductory statements to key concerns outlined further below in the letter. See the following for responses to these concerns.

PA 12-4 This comment provides general introductory statements to key concerns outlined further below in the letter. See the following for responses to these concerns.

PA 12-5 This comment states that the DSEIR does not adequately evaluate known or likely impacts to riparian, wetland, and stream areas designated under the LCP as sensitive habitat, and does not identify adequate mitigation measures to address those impacts. Potential impacts concerning these biological resources are addressed in the following DSEIR sections:

- *Riparian Impacts:* DSEIR Impact 5.3-2, *Riparian Habitat or Other Sensitive Natural Community*, as well as DSEIR Impact 5.3-1, Special-Status Plant and Wildlife Species, in the context of listed and special status plant and wildlife species. Additionally, the following DSEIR Mitigation Measures are proposed to avoid/lessen impacts to riparian vegetation: BIO-2; BIO-3; BIO-5; BIO-7 (Adaptive Management Program); BIO-8; BIO-18; and BIO-19.

- *Wetland and Stream Areas (Jurisdictional Waters):* DSEIR Impact 5.3-3, *Wetlands and Jurisdictional Waters*. Additionally, the following DSEIR Mitigation Measures are proposed to avoid/lessen impacts to wetlands and stream areas: Mitigation Measures BIO-4 through BIO-8; BIO-18; and BIO-19.

The following DSEIR Impact analyses evaluate the Project for consistency with relevant LCP policies:

- Impact 5.3-5, *Consistency With Local Policies/Ordinances – CZLUO & LCP*;
- Impact 5.6-1, *Compliance with California Coastal Act*; and
- Impact 5.6-3, *Compliance With the Local Coastal Program Policy Document*.

The Project was determined to be consistent with relevant LCP policies.

PA 12-6 The Project would implement measures to more effectively manage the groundwater within the CCSD's well field by maintaining a groundwater mound between the well field and the downstream freshwater/ocean interface. This would be accomplished by extracting groundwater from the percolation pond area and releasing it into Van Gordon Creek. The released water would percolate into the underlying groundwater, raising the groundwater levels, restoring the groundwater mound and maintaining the positive gradient between the well field and the downstream areas. Water released into Van Gordon Creek that does not percolate would be flow to the ocean and be lost. With the SWF operating, the groundwater extracted from the percolation pond area would be treated to drinking water quality levels and reinjected back into the groundwater near the San Simeon wells. Approximately 60 percent of the reinjected groundwater would travel into the existing well field, replenishing the groundwater, and allowing up to 400 gpm to be pumped and reused by CCSD during drought conditions. The remaining 40 percent of the rejected groundwater would either flow into the subterranean creek channel or recycle back into the groundwater below the extraction well at the percolation pond.

The Project also includes a Project Design Feature (PDF) that delivers approximately 100 gpm discharge filtrate product water to the San Simeon Creek Lagoon (as deemed necessary by the Project's AMP, see Mitigation Measure BIO-7), to ensure the creek and lagoon surface levels and flows are not affected by the Project. As noted in Response PA 4-7, based on the GMR's and TM's findings, while the SWF is operating, the PDF's approximate 100 gpm filtrate product water flow to the San Simeon Creek Lagoon would maintain water levels in the lagoon.

Significant changes in groundwater levels and surface water flows in San Simeon Creek and San Simeon Creek Lagoon are not expected to occur as a result of the SWF's groundwater pumping and the proposed reinjection program. Further, the modeling shows that the 100 gpm of mitigation water and the relocation of the discharge point for the mitigation water further upstream past the entrance to the lagoon would be sufficient to maintain surface levels and surface flows for the sensitive habitats and species associated with San Simeon Creek and San Simeon Creek Lagoon. This analysis concluded that the 100 gpm flow provides greater protection to the San Simeon Creek Lagoon area than a no project alternative would offer.

However, out of an abundance of caution, Mitigation Measure BIO-7 requires implementation of an AMP for long-term SWF operations. The AMP is intended to monitor and protect the lagoon, creek, and riparian habitats and, by extension, protect the species that inhabit them. The AMP's primary goal is to monitor the response of the lagoon, creeks, and riparian habitats to SWF operations. Monitoring is required as part of the AMP to ensure that creek and lagoon levels are maintained during SWF operations.

The AMP provides for detailed and continuous monitoring of groundwater levels, surface water flows, biological monitoring of riparian and instream habitats, as well as a rigorous reporting program, to ensure the groundwater levels and surface flows are not adversely affected and that no impacts would occur to those federally listed species known to occur or that may potentially occur in Van Gordon, San Simeon Creek, and San Simeon Creek Lagoon. The AMP would be fully vetted with USFWS and CDFW prior to and during the SWF Project implementation. The AMP is a living document that not only provides for frequent monitoring and analyses of groundwater levels, surface flows and sensitive species habitats and population levels, but also requires the continual assessment of the effectiveness of mitigation measures and the development and implementations of new mitigation measures as adaptive responses to changing conditions. The additional analyses requested by CCC would be an integral part of the AMP process and, as noted, would be routinely reported to/discussed with the wildlife agencies throughout the life of the SWF Project.

As stated in Response PA 4-13, stream elevation profiles presented in the GMR were used to define the discharge point for MF filtrate water, which is where the water surface elevation is flat, representing the lagoon, rather than flowing surface water. This point is approximately at the location of the pedestrian bridge. Additionally, the 1988 USGS Report (98-4061) found that no flow is typically observed in San Simeon Creek during the dry season. Therefore, maintaining the levels further upstream as suggested by this comment would not be practical, nor meet natural conditions. See also Responses PA 4-7, PA 4-8, and PA 4-12, which further address the PDF's approximate 100 gpm filtrate product water flow to the upper reach of the San Simeon Creek Lagoon. It is further noted that SWRCB Permit 17287 (Condition 16) specifies the following (emphasis added):

> "16. PERMITTEE SHALL MAINTAIN WATER LEVELS IN THE LOWER BASIN TO SUSTAIN STREAM FLOW TO THE LAGOON *AT THE MOUTH OF SAN SIMEON CREEK* TO MAINTAIN FISH AND RIPARIAN WILDLIFE HABITAT."

See Response PA 4-13 for further discussion concerning discharge point placement.

Footnote #3 questions the change included in the FSEIR from "mitigation flow" to "MF filtrate flow." As stated in CEQA Guidelines Section 15126.4.a.1.A, "the discussion of mitigation measures shall distinguish between the measures which are proposed by project proponents to be included in the project [Project Design Feature] and other measures proposed by the lead, responsible or trustee agency or other persons which are not included but the lead agency determines could reasonably be expected to reduce adverse impacts if required as conditions of approving the project." The change in the FSEIR from "mitigation flow" to "MF filtrate flow" was included to distinguish/clarify that the approximate 100 gpm flow of filtrate product water to San Simeon Creek Lagoon is proposed by the CCSD as part of the Project as a "Project Design Feature" (PDF) and not a mitigation measure; see also SEIR Section 3.5.1.2, *Advanced Water Treatment Plant (AWTP) – Lagoon Surface Discharge*.

PA 12-7 See Response PA 12-3 concerning consistency with LCP policies.

PA 12-8 The PDF, which provides water to the upper San Simeon Creek lagoon, maintains fish and riparian habitat in the lower basin of the San Simeon Creek lagoon. Detailed hydrogeological analyses, which included the use of field measured data, were included in DSEIR *Appendix E-6*, *San Simeon Creek Flows – Technical Memorandum*, (TM). Appendix E-6 Figure 7 concerning San Simeon Creek flows showed that with the Project operations, better protection was provided than without the Project. This PDF is further supported by the AMP, which is referenced in Mitigation Measure BIO-7. Concerning CCSD water rights permitting, such water rights permits are for diverted water, which is pumped into the Cambria potable water distribution system by existing CCSD Wells SS1, SS2, and SS3. The water provided to the lagoon from the SWF is a riparian discharge, which is not part of the water being diverted and subject to the aforementioned water rights permit.

PA 12-9 The PDF that provides water to the upper San Simeon Creek lagoon discharges this riparian water such that it enters the lagoon as surface water. By entering the lagoon as surface water, optimal protection to the riparian habitat is provided by not losing this water into subterranean groundwater, which may otherwise be lost to the ocean. For example, if the lagoon water were to be discharged into a dry gravel bed, such water would likely infiltrate into the underlying groundwater and not benefit sensitive species or their habitats. Surface discharge into the upper lagoon also avoids the need to locate the discharge at the precise location of the upper edge of the lagoon surface, which can vary depending on the time of year,

the amount and timing of seasonal rainfall, and agricultural demands. See also Responses PA 7-3 and PA 7-6 regarding the CDFW reference.

PA 12-10 See Responses PA 7-5 and PA 7-6. The Project's potential impacts are thoroughly and adequately addressed in the Draft and Final SEIRs.

PA 12-11 See Response PA 7-6.

PA 12-12 See Responses PA 7-5 and PA 7-6.

PA 12-13 See Responses PA 7-5 and PA 7-6.

PA 12-14 See Responses PA 7-5 and PA 7-6.

PA 12-15 See Responses PA 7-5 and PA 7-6.

PA 12-16 See Responses PA 4-29 and PA 4-30. The facility does not meet the criteria defining a critical facility, and therefore the 500-year storm event does not apply.

PA 12-17 See Response PA 4-32.

PA 12-18 This comment states repurposing the evaporation pond to a raw water storage basin will create a wildlife hazard that's not analyzed in the DSEIR. It is assumed the "wildlife hazard" mentioned in this comment is associated with the RO concentrate stored in the evaporation pond, prior to pond repurposing to storage basin. It is noted, the waste stream constituents are considered non-hazardous, as concluded in DSEIR Section 8.0, *Effects Found Not To Be Significant*). The potential impacts to wildlife associated with the RO concentrate's hypersalinity are addressed in the DSEIR, specifically concerning California red-legged frog (CRLF) on DSEIR Page 5.3-63 and concerning avian and other wildlife on DSEIR pages 5.3-82 to 5.3-84. As concluded, CRLF, and avian and other wildlife could be attracted to the pond due to the presence of standing water and adversely impacted by the RO concentrate's hypersalinity. The SWF employs deterrent and exclusion methods to prohibit entry of terrestrial wildlife into the evaporation pond area. The four-foot high CRLF exclusion fence installed along the evaporation pond's perimeter prevents CRLF, as well as various other terrestrial wildlife, from entry into the evaporation pond area. Additionally, the climber barrier and HDPE matrix prevent CRLF from being trapped within the fence. When operational, the evaporators spray water with some force across the pond, disturbing the birds and reducing their likelihood of landing or staying for significant periods of time. However, since the evaporators do not operate continuously, avian wildlife could still be attracted to the evaporation pond

when/where the evaporators are not operational and adversely impacted by the RO concentrate's hypersalinity. A Hazing Study (*Report of Dr. Winston Vickers Regarding Restriction of Wildlife Access to Evaporation Pond*, December 16, 2015) was conducted to determine the best approach to haze/deter wildlife from the evaporation pond to avoid/lessen impacts to wildlife; see DSEIR Appendix E5. The purpose of the Hazing Study was to examine the evaporation pond and advise the CCSD of methods to reduce the pond's negative wildlife impacts. According to the Hazing Study, although many different hazing tools are available to reduce attractiveness of a body of water to wildlife, and these individually and in groups can be very effective for variable periods of time, no hazing methods or groups of methods are typically effective for extended periods (months to years), if not continuously varied. Due to the proximity of public parkland and resultant noise restriction, the tools that could be deployed at the evaporation pond were determined to be limited primarily to non-audible tools. These tools would have to be varied and monitored and maintained on a nearly constant basis, and would likely lose effectiveness over time even when continuously tended. In contrast, some deterrence or exclusion methods can be effective for longer periods (or indefinitely). Concerning the Project, the Hazing Study found that deterrence via exclusion is the approach that is most likely to be successful in accomplishing the goal of near complete reduction in risk to wildlife over long periods. As noted in the Hazing Study, exclusion is already being employed at the evaporation pond (via fencing) to eliminate entry of amphibians and reptiles to the pond area. The Hazing Study analyzed various strategies that could be considered that have the advantage of expected longer effectiveness. The Hazing Study concluded that a combination of buried fencing and netting, would afford the best likelihood of maximum wildlife restriction from the evaporation pond over long periods of time. The Hazing Study's recommended strategy (fencing and netting) was questioned as to its long-term capability to withstand high wind conditions, such as those brought on by winter storms, as well as having potential visual impacts. Therefore, mitigation is recommended (see Mitigation Measure AES-3 below) requiring that until emptied, the decommissioned pond be covered by a floating net that avoids hazards to avian species, as verified by a USFWS-approved Biologist, is colored treated such that it blends into the surrounding area, and is anchored to withstand high wind conditions.

To further clarify evaporation pond decommissioning and emptying, DSEIR Page 3-53 is revised in the FSEIR as follows:

3.5.2.1 EVAPORATION POND DECOMISSIONING AND REPURPOSING (~~EVAPORATION POND REPURPOSING POTABLE~~ RAW WATER ~~SUPPLY~~ STORAGE BASIN)

EVAPORATION POND DECOMISSIONING

The evaporation pond has approximately 3.0 acres of surface area and 21.4 AF (or 6.96 MG) of usable storage capacity. In compliance with Mitigation Measure AES-2, the evaporation pond would be ~~repurposed/ modified to serve as a raw potable water supply storage basin (i.e., prior to surface water treatment)~~decommissioned, as follows:

- The RO concentrate would be vacuumed out of the evaporation pond via Vactor (a registered name) or similar truck for hauling and ~~pumped out of the evaporation pond and the residual slurry would be hauled away for~~ disposal at an appropriate Class II waste disposal facility. The evaporation pond liner would be cleaned using high pressure hoses to sluice the RO concentrate residuals to the pond's lowest spot. The rinse water would similarly be hauled away for offsite disposal.

- The submersible evaporator pumps along with pontoons would be removed. This would include removal of the pump extraction cable, which is strung above the evaporation pond.

- The mechanical spray evaporators, appurtenances (electrical wiring and control panels), and sound enclosures would be removed.

EVAPORATION POND REPURPOSING

After the evaporation pond is decommissioned, it would be repurposed and modified to serve as a raw water storage basin. The raw water storage basin would store water prior to surface water treatment.

To further address potential impacts to wildlife associated with the RO concentrate's hypersalinity once the pond is decommissioned, DSEIR Page 5.1-22 is revised in the FSEIR as follows:

AES-2 Within one year of completion of the SEIR process and completion of all necessary regulatory agency permits, the CCSD shall remove the five mechanical spray evaporators along with their enclosures and decommission ~~T~~the evaporation pond ~~shall be repurposed as a potable water supply storage basin~~. The AWTP RO concentrate shall be discharged to four (4) ~~Baker~~ above-ground tanks for storage prior to offsite disposal, instead of the evaporation pond. Until emptied, the decommissioned pond shall be covered by a net that: is designed and constructed such that it is not hazardous to avian species, as verified by a USFWS-approved

Biologist; floats on the RO concentrate; is colored treated such that it blends into the surrounding area, as recommended by a licensed Landscape Architect and the County; and is anchored to withstand high wind conditions (such as those brought on by winter storms).