Item21 Attachment 3 – Comments Letters

Dated 10/17/14 Comments from Eugene Blanck

Letter dated 10/5/2014 - Cambrians for Water CR H20 – Michael McLaughlin

Letter dated 10/18/2014 – Cambria Chamber of Commerce – Mel McColloch

Email dated 10/14/2014 – Christine Heinrichs

Letter dated 09/15/2014 – Dale Rutherford

Letter dated 09/17/14 - Judith Holland

Email dated 10/17/2014 – Lynne Harkins

Letter dated 10/01/2014 – Lynn Taylor

Email dated 10/17/2014 – Mary Webb

Email dated 10/17/2014 – Mary Webb Title 22 & Greenspace

Letter dated 09/30/2014 – Richard and Christine Greek

Letter dated 09/13/2014 – Mark Landgreen

Letter dated 09/27/2014 – Greenspace – Richard Hawley

Letter dated 09/23/2014 – Warren Wolfe

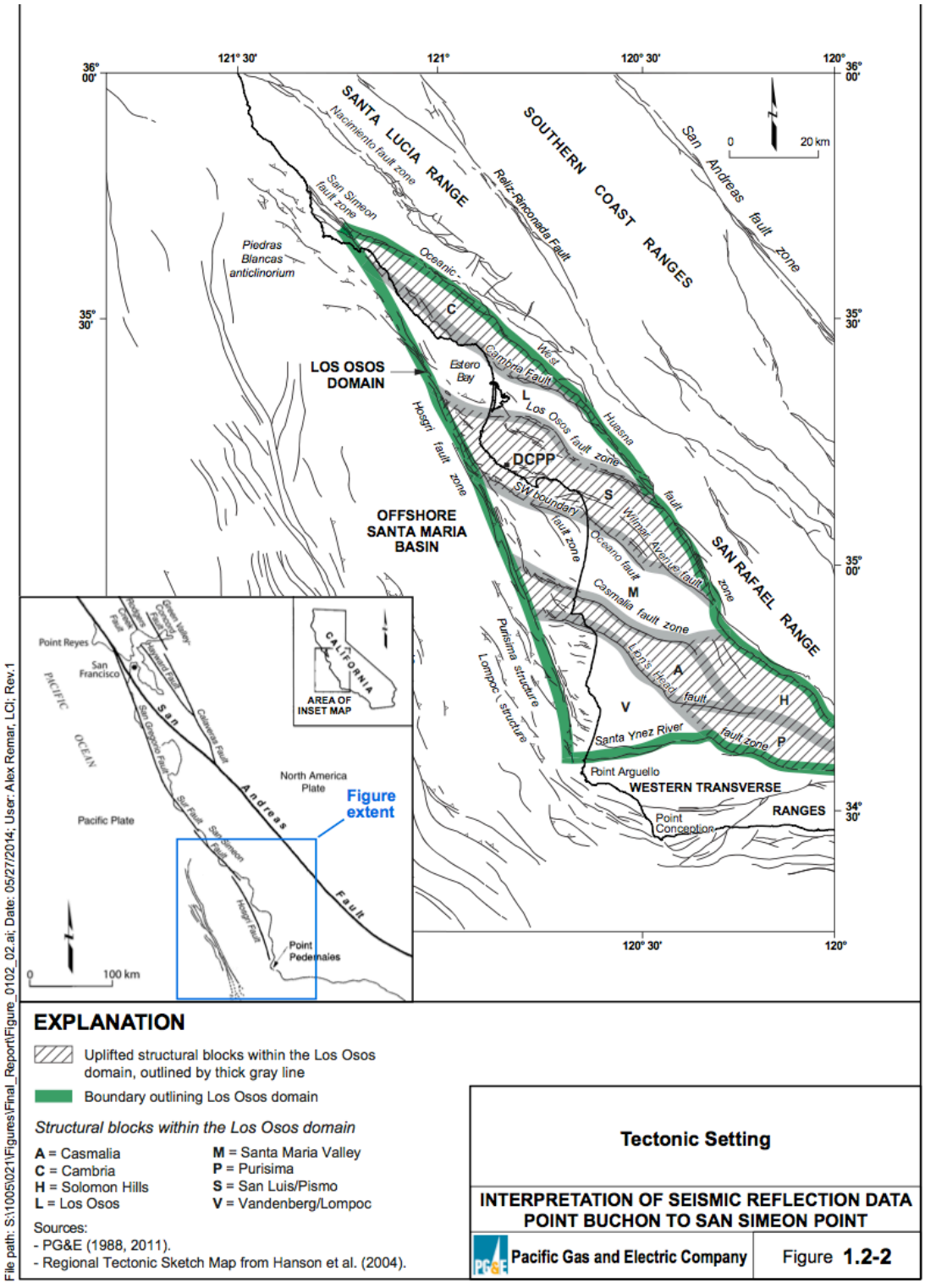
Comments on Cambria CSD Title 27 “emergency” water project processed sewer plant discharge water reverse osmosis brine discharge evaporation ponds (toxic pit) impoundment.

SITING CRITERIA (MCE and 24 hour/1000 year flood)

Flooding-The Cambria CSD proposed Title 27 impoundment is placed on the meandering channel deposits of San Simeon creek and is within the 24 hour/1000 year flood plain. Erosion from the design event could cause the impoundment to lose containment. The impoundment is located within the San Luis Obispo County Safety Element 100 year Flood Hazard Zone for San Simeon Creek.

Maximum Credible Earthquake

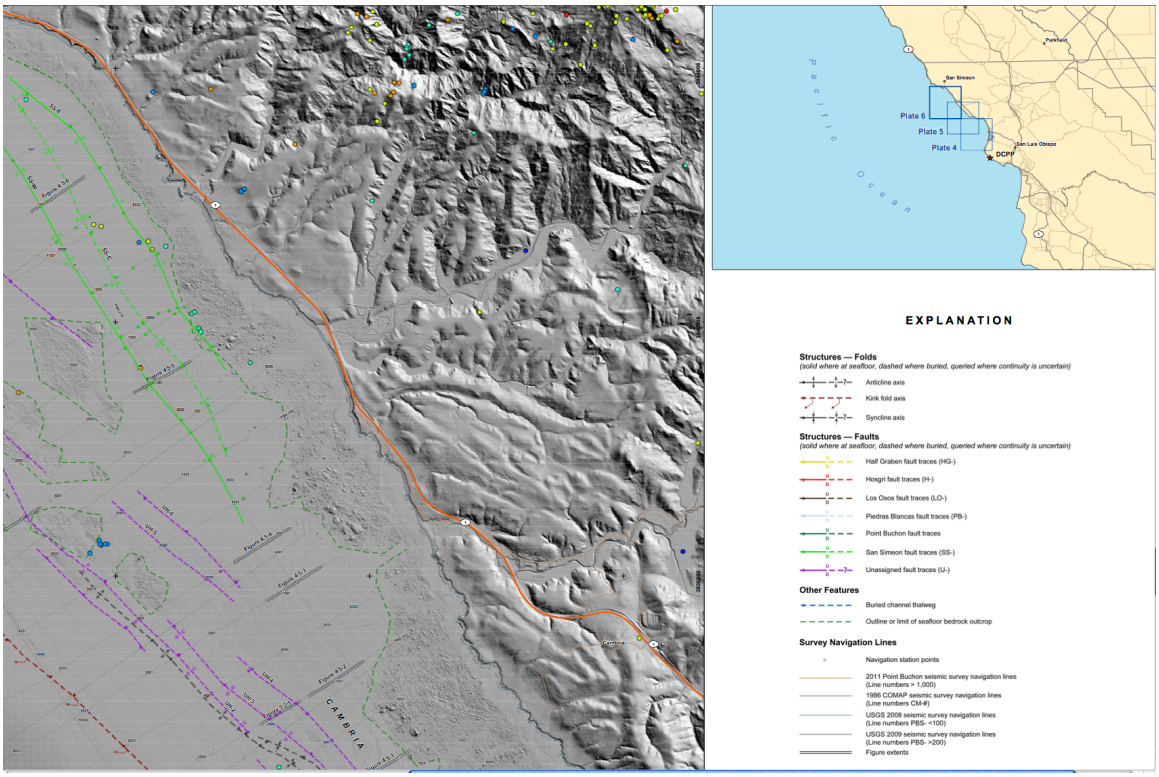
Seismic shaking – Slopes, equipment and piping for the Cambria CSD proposed Title 27 impoundment have insufficient design to withstand the expected seismic shaking at the site. The P G & E Diablo Canyon Nuclear Power Plant Long Term Seismic Survey and subsequent regional seismic setting work has mapped an active network of tectonic faults on the Central Coast that are tied to the plate boundary with links to the modern San Andreas fault on the North, South or both ends.



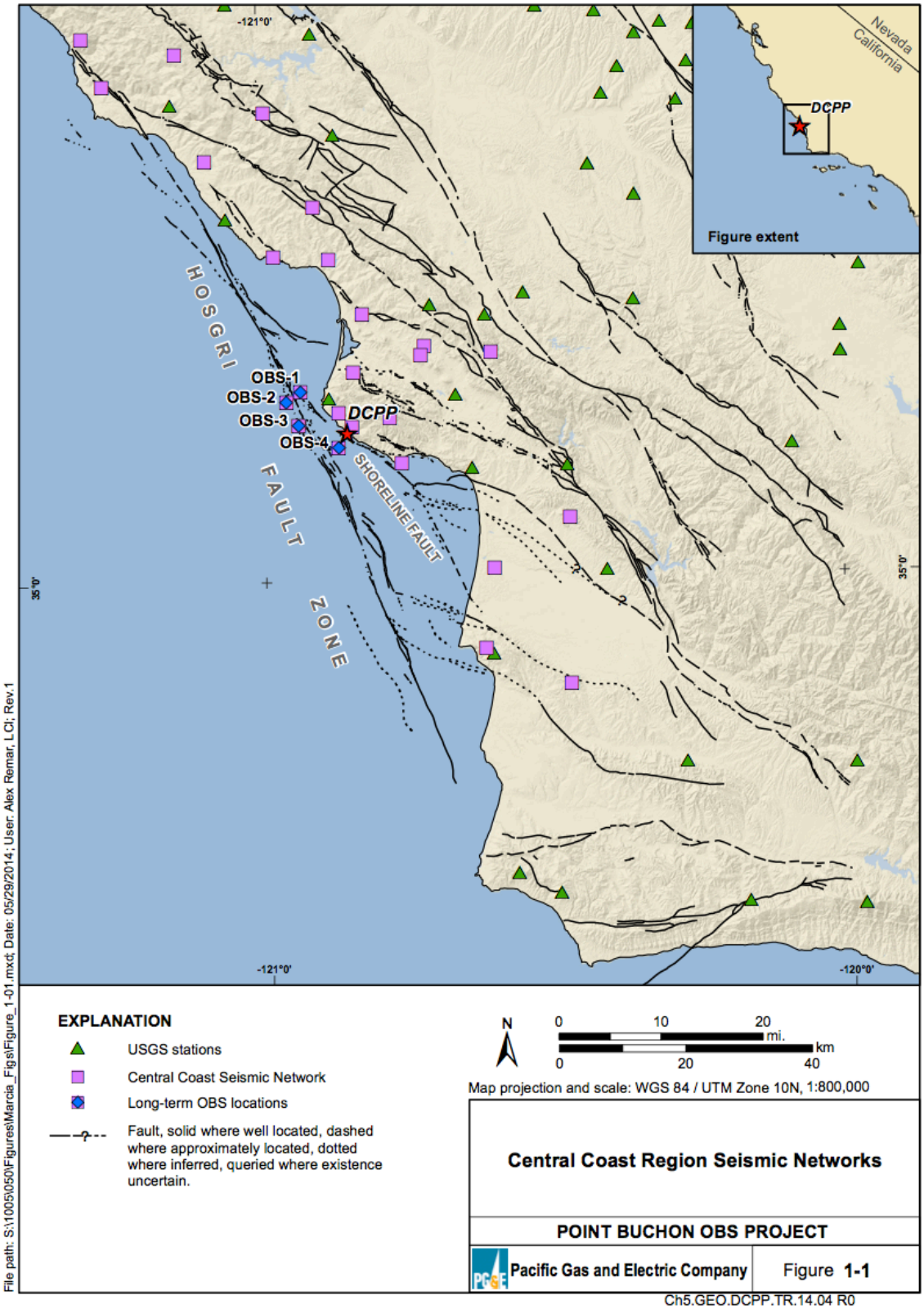
Ch4.GEO.DCPP.TR.14.05 R0

One of this system of faults generated the December 22, 2003 M6.5 San Simeon earthquake. *McLaren, M. K.; Hardebeck, J. L.; van, der, Elst, N.; Unruh, J. R.; Bawden, G.*

W.; Blair, J. L., **Complex faulting associated with the 22 December 2003 Mw 6.5 San Simeon, California, earthquake, aftershocks and postseismic surface deformation;** 2008-01-01 in Science.gov established the thrust/reverse fault origins of the San Simeon earthquake putting local earthquakes in the higher tier of earthquake accelerations than simple strike slip faults. In addition, recent writings by the US Geological Survey have linked the Hosgri, San Simeon, Sur, San Gregorio and San Andreas faults into one fault system (similar to the 5 separate faults that caused the M7.9 Landers earthquake). Since the Hosgri fault system would be the second longest potential earthquake fault source in California, earthquake magnitudes above 8 are reasonable to assume and vertical accelerations above 2 g from a fault a stones throw offshore are also a reasonable assumption.



<u>Surface Fault Rupture</u> – Active traces of the Cambria fault may traverse under the foundation of the proposed Cambria CSD Title 27 impoundment, which should have the entire footprint trenched pursuant to California Fault Special Studies Zones to verify the unit will not be subject to active fault rupture and resulting liner failure. Clarence Hall, et. al., (UCLA Emeritus) 1979, USGS Miscellaneous Investigations Series Map I-097 has mapped numerous traces of the Cambria fault crossing San Simeon Creek. The western most trace of the Cambria Fault has been mapped crossing San Simeon creek under the Highway 1 bridge (Eugene Blanck and Gary Mann) resulting in the San Simeon creek capture of the creek immediately south of San Simeon creek by a component of right lateral offset. Four or more traces of the Cambria fault have been mapped east of the west most trace by Hall or other US Geological Survey maps.



The P G & E Diablo Canyon Nuclear Power Plant Long Term Seismic Survey has categorized the Cambria fault as within the active fault framework of the Central Coast. In addition, the 2003 San Simeon earthquake resulted in the offset of a well

casing near the intersection of State Highways 1 and 46 on the Fiscilini Ranch (Joint Meeting Pacific Section, AAPG & Cordilleran Section GSA April 29–May 1, 2005, San José, California
An Alternate Fluid Dynamic Tectonic Model That Explains Possible Precursory Hints of the December 22, 2003 San Simeon Earthquake Lou Blanck and Brian Bode). This well casing offset at the mapped Cambria fault was at least sympathetic fault movement if not primary fault movement associated with the coastal Santa Lucia Mountains thrust system.

Liquefaction - The Cambria CSD proposed Title 27 impoundment is located within the San Luis Obispo County Safety Element Liquefaction Hazard Zone for San Simeon Creek. In addition, groundwater has been identified at 9 feet below the base of the proposed Title 27 impoundment in typical sandy fluvial deposits notorious for liquefaction. The impoundment plans include no mitigation for the liquefaction hazard and differential settlement during liquefaction will likely result in liner offset, containment failure and potential impoundment failure (e.g., Baldwin Hills dam failure and San Fernando dam 1971 near failure). At a minimum this Title 27 impoundment should be designed according to California Geological Survey: SPECIAL PUBLICATION 117A, **GUIDELINES FOR EVALUATING AND MITIGATING SEISMIC HAZARDS IN CALIFORNIA THE RESOURCES AGENCY**, MIKE CHRISMAN, *SECRETARY FOR RESOURCES*, 2008 and specifically Chapter 6 for liquefaction.

Tsunamis – The Cambria CSD proposed Title 27 impoundment is within the historic inundation area of Central California Coast tsunamis. Approximately, 1996, Unocal historian Darwin Sainz mentioned the newly built Union Oil "Oilport" refinery in what is now Shell Beach (between Pismo & Avila Beaches and at 50 to 100 feet elevation) was destroyed by a tsunami in the early 1900's. July 2009, George Plafker reported, "a bigger earthquake and a more destructive tsunami than the 1964 event are possible in the future". The 1812 Santa Barbara Channel earthquake produced 5 tsunami waves approximately 50 feet in height to the front of the Santa Barbara Presidio based on a Franciscan Father's journal. A book on "Shipwrecks, Smugglers, and Maritime Mysteries" by Wheeler & Kallman reports the largest wave was 48-50 feet estimated by the USGS west of Santa Barbara near Goleta. The "History of San Luis Obispo County, California" by Thompson & West (1883) reports 12 feet tsunamis occurred on August 13, 1868 (Peruvian earthquake) and April 16, 1877. On November 22, 1878, turbulent water in the absence of wind produced tsunamis that broke over the Morro Bay sand spit (current quad sheet high elevations 66 to 97 feet N to S), destroyed Avila & Pt. Sal piers, damaging Cayucos pier. A likely offshore subsea landslide resulted in a tsunami at 12:40 PM December 9, 1907, near high tide and in already heavy seas, that stood out from the rest of the storm due to its' enormous height. It wrecked the Ventura pier (12-13- 1907, SLO Tribune) and the Oilport pier (12-13-1907, SLO Tribune & 12-6-1976 also 12-14-1907, Santa Maria Times & amp;12-10-1907 SLO Telegram) at Shell beach and destroyed the Oilport refinery (Darwin Sainz, personal communication). Before 7 AM on November 26, 1913, tsunamis wrecked the Monterey area including waves 10 to15

feet above the Del Monte wharf. At Seaside, "Immense domes of water and foam shot up above the general height" ... "appearing from here to be higher than the highest sandhills along the shore."(12-2-1913, SLO Tribune) Current quad sheet high elevations are 120 feet. These reports of historic tsunamis represent wave elevations significantly higher than the 1964 Alaska earthquake tsunami that is typically used for emergency planning for tsunami inundation in California. Since it appears 4 much larger tsunamis occurred in the Central Coast area in 1812, 1878, 1907 and 1913; it appears we may have become complacent during this recent period of tsunami quiescence. Emergency planning for Central Coast tsunamis should be anticipating tsunami waves runup in the 50 to 100 feet elevation range. Presented by Eugene (Lou) Blanck at July 28, 2010, Central Coast Association of Engineering Geologists and previously at the American Geophysical Union.

The Cambria CSD Title 27 impoundment is located within the San Luis Obispo County Safety Element Tsunami Hazard Zone for San Simeon Creek, which grossly underestimates the historic tsunami hazard published in documents from the SLO City/County library.

Subsidence and Hydro-consolidation - The Cambria CSD Title 27 impoundment is located above coastal fluvial stream sediments similar to those in Santa Rosa creek that have historically been documented to have experienced differential settlement offsetting building foundations due to aquifer overdraft. The Cambria CSD project associated with the proposed Title 27 impoundment is adjacent areas of proposed new groundwater extraction and treated water injection that the literature is full of articles documenting the proposed changes as the source of differential subsidence and hydroconsolidation. No geotechnical investigation of the materials beneath the proposed Title 27 impoundment has been conducted regarding their propensity for subsidence, differential settlement and/or hydroconsolidation.

Construction compaction anomalies – The "emergency" construction protocols observed being used to construct the Cambria CSD Title 27 impoundment levees were less than that used to construct local agricultural stock ponds. Not only was soil being placed at below optimum moisture content, it was so dry it was violating PM10 air quality requirements. Nothing was observed to prepare the natural ground for the added weight of the levee (e.g., over excavation). In addition, significant organic material (e.g., straw) was observed being incorporated into the levee material, such that integrity could be lost from piping or consolidation as the organic material degrades. Nothing in the soils being used suggested low permeability.

PRACTICAL OPERATIONAL CONSIDERATIONS

1. **Toxic Pit -** The brine evaporation pond will likely become a "toxic pit" (banned in California since 1989) as a result of the composition of the influent and the double concentration methods of Reverse Osmosis (RO) brine discharge and subsequent evaporation. This was a common characteristic of the nearly 80 toxic pits I closed

while working at the Central Coast Regional Water Quality Control Board. Toxic heavy metals are likely to concentrate in the evaporation pit from naturally occurring metals (e.g., arsenic, chromium, asbestos and mercury) from Santa Rosa and San Simeon Creeks and corroded metals derived from dis-similar metals (copper, chromium, steel, lead, etc.) in Cambria plumbing that is sacrificed into solution by the anode battery effect. Also, maintenance of the RO includes use of toxic chemicals (e.g., anti-scale chemicals, biocides, etc.) that would also end up as part of the brine discharge.

A local resident Lynne Harkin samples in Santa Rosa creek and came up with the following results:

"The 2013 tests-which I only have in paper form were 1140 ppb dry wt and 332 ppb wet of mercury. If only 1% of wet amt of mercury was in suspension in water pumped up to fields that would be 3.3 ppb total Hg."

The occurrence of the heavy metals (and potentially other toxic chemicals like herbicides) will accumulate and concentrate in the Title 27 impoundment as described above. No practical solution has been proposed to excavate evaporite deposits in the Cambria CSD Title 27 impoundment (if it ever dries out) without causing damage and compromising the liner and leachate collection system. Just driving equipment on the levee slope into the impoundment would result in equipment sliding and liner compromise.

Lab results (note mercury levels) from Cambria CSD biosolids are:

Calscience Environmental Laboratories, Inc.

Analytical Report

Liberty Composting, Inc.
P.O. Box 80727
Bakersfield, CA 93380-0727

Date Received: 09/23/11
Work Order No: 11-09-1566
Preparation: EPA 3050B / EPA 7471A Total
Method: EPA 6010B / EPA 7471A
Units: mg/kg

Project: CAMBRIA

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Cambria	**11-09-1566-1-A**	**09/22/11 09:40**	**Solid**	**ICP 5300**	**09/23/11**	**09/26/11 20:54**	**110923L11A**

Comment(s): -Mercury analysis was performed on 09/26/11 11:26 with batch 110926L02.
-Results are reported on a dry weight basis.

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Antimony	ND	3.38	1		Mercury	1.06	0.376	1	
Arsenic	ND	3.38	1		Molybdenum	7.72	1.13	1	
Barium	491	2.25	1		Nickel	24.1	1.13	1	
Beryllium	ND	1.13	1		Selenium	7.93	3.38	1	
Cadmium	ND	2.25	1		Silver	4.46	1.13	1	
Chromium	23.8	1.13	1		Thallium	ND	3.38	1	
Cobalt	2.79	1.13	1		Vanadium	11.9	1.13	1	
Copper	874	2.25	1		Zinc	770	4.50	1	
Lead	14.6	2.25	1						

Method Blank	**099-04-007-8,260**	**N/A**	**Solid**	**Mercury**	**09/26/11**	**09/26/11 11:12**	**110926L02**

Comment(s): -Preparation/analysis for Mercury was performed by EPA 7471A.

Parameter	Result	RL	DF	Qual
Mercury	ND	0.0835	1	

Method Blank	**097-01-002-15,263**	**N/A**	**Solid**	**ICP 5300**	**09/23/11**	**09/26/11 13:47**	**110923L11A**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Antimony	ND	0.750	1		Lead	ND	0.500	1	
Arsenic	ND	0.750	1		Molybdenum	ND	0.250	1	
Barium	ND	0.500	1		Nickel	ND	0.250	1	
Beryllium	ND	0.250	1		Selenium	ND	0.750	1	
Cadmium	ND	0.500	1		Silver	ND	0.250	1	
Chromium	ND	0.250	1		Thallium	ND	0.750	1	
Cobalt	ND	0.250	1		Vanadium	ND	0.250	1	
Copper	ND	0.500	1		Zinc	ND	1.00	1	

2. The toxic soup in the Cambria CSD Title 27 impoundment will become a local version of the Kesterson environmental disaster that poisons birds and any critter that crawls, slithers or hops into the pit. Significantly San Simeon creek is one of the richest areas for threatened and endangered species that US Fish & Wildlife Service uses to train State and Federal staff about threatened and endangered species and their habitat including but not limited to tide water gobys, steelhead trout, California Condors, peregrine falcons, red legged frogs, two striped garter snakes, snowy plovers, black oyster catchers, Western pond turtles, Bald eagles, Least terns, likely unique plant life in the coastal wetland and probably others. No provisions appear to be attempted to protect wildlife from exposure to the toxins in this Title 27 impoundment.

3. The project extraction well will be pumping a significant percentage of sewage wastewater from the adjacent wastewater discharge pits into the RO. There is no disinfection of the influent to the RO, so the brine discharge will include pathogens, heavy metals and RO maintenance chemicals. The evaporation pond (toxic pit) is undersized (particularly during our foggy summer days) so mechanical evaporators are planned to noisily operate for 12 hours/day. Pathogens from aerosolized evaporators will waft into the wetland, campground, town of Cambria and prevailing downwind farmland. Where are the epidemiological studies of the impacts on human health and the health of the threatened and endangered species? Perhaps the Cambria CSD wants to take the Texas Presbyterian Hospital approach and see how many people and threatened and endangered species get sick first before they consider the implications.

4. The CCSD has a track record of regular spills from its' wastewater treatment plant, storage tanks and piping system, so spills (overflows) from the evaporation pond (toxic pit) into the coastal wetland should be expected. These impacts have not been considered. In fact, there does not appear to be an outlet for the easy to anticipate overflow.

Sincerely,

Eugene (Lou) Blanck
CA Professional Geophysicist 1011
CA Professional Geologist 3695
CA Certified Engineering Geologist 1130
CA Certified Hydrogeologist 175

Cambrians for Water "C4 H2O"
PO Box 484
Cambria, CA 93428-0484

October 5,2014

Ken Harris, Executive Director
Central Coast Regional Water Quality Control Board
895 Aerovista Place, Suite 101
San Luis Obispo, CA 93401-7906

Re: CCSD Draft Waste Discharge Requirements Order No. R3-2014-0047, *et al.*

Dear Mr. Harris,

I am Co-Communications Director of Cambrians for Water ("C4 H20"). This is an unincorporated association of Cambrian residents and property owners and water users served by the Cambria Community Services District ("CCSD" or "District"). C4 H2O strongly urges the Central Coast Regional Water Quality Control Board to grant CCSD's pending application for a Title 27 Permit covering the evaporation pond and related equipment to be constructed and operated at CCSD's Emergency Water Supply Project ("Project") as well all other Project permits within the CCRWQCB's jurisdiction.

Cambrians for Water was formed on August 19, 2014 and in the short time since, we have grown to approximately 600 members and expanding daily. The main motivating factor for forming this organization was to support the CCSD's Emergency Water Supply Project ("Project") and its hopefully successful application process. For reasons explained below in this letter, and contrary what opponents of the Project would have you believe, the majority of Cambrians support the Project because of our immediate need for a new source of water during periods of drought as we are experiencing presently.

We believe we represent the majority of Cambrians based on these factors:

1. The on-going and rapid growth of our organization since its inception just a few weeks ago.

2. 80% of affected water users rejected a feverish attempt by opponents of the Project to block a necessary rate increase to fund the Project. The opponents of the

> Project failed to obtain the necessary signatures to block the increase during the 45-day period allowed under the law.

We defer to the District's experts, consultants and contractors to address the more technical issues involved in the Permit process. Suffice it to say that we have attended presentations by CDM Smith and believe that all issues are addressed, including the evaporation pond, potential impact on wildlife and other environmental matters under review including the blowers and other equipment used for evaporation.

Based on our past experience Project opponents can give the impression that the majority of Cambrians share their views. This simply is not the fact. The volume and intensity of this relatively small number of Cambrians, though passionate, is a minority view. It has been said, "Though you might speak up, the more important thing is how many do you speak for?" C4 H20 speaks for the majority.

Cambrians are in a Stage III critical drought classification. We do not have sufficient water to support the quality of life we have had in the past. The CCSD imposed restrictions are not just inconveniences. We use buckets to flush toilets, take sponge baths, cannot water our landscaping at all, wash our clothes less frequently, have seen all public bathrooms closed and have to use portable toilets when outside our homes if a need arises. Throughout this time Cambrians have reduced their water use by 40%. This figure is remarkable because prior to restrictions being imposed, Cambria's water use was only 100 gallons per person per day. This was among the lowest rates in the entire State of California.

One group of the opponents to the Project urges the District to construct a reservoir on a rancher's land which he purportedly is willing to sell. Some have estimated that type of solution would take at least 2 years or more to construct and raise more environmental issues than the emergency Project seeking to be receive a regular permit. Furthermore, we are not even sure we will have sufficient rain this winter to partially replenish our 2 aquifers as it is.

This is a Project which will only be operated in case of severe draught. It gives **us partial relief to help us maintain** what we have. It will not return us to what was; it will only be a safety valve to be turned on when water falls below regulated levels. Only a lot of rain will help us return to the quality of life we enjoy when not threatened by drought.

Not only are individual citizens suffering in our town but businesses are also under severe restrictions. Tourism is our main source of income and hence, jobs

in the community. The severe water use restrictions, especially it persists will significantly and adversely impact our economy.

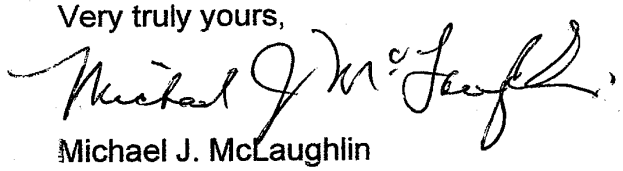
Cambrians respect their environment; however, as it stands now, we cannot conserve anymore. We believe that if wildlife and its habitats would be impacted, those effects can reasonably be mitigated. In fact, by infusing fresh water into San Simeon Creek aquifer, it would enhance that ecosystem.

We ask that you and your staff and Board expedite these Permit applications to a successful conclusion, which will result in issuance of all necessary permits within your jurisdiction.

As a courtesy and a matter of fairness, we would request that we be copied with any documents and/or commentary submitted by opponents, both private citizens and organizations concerning the above referenced CCSD Permit applications so that we may respond. This material can be sent to the P.O. Box above or electronically to cambriansforwater@gmail.com.

Thank you for your anticipated consideration of our position.

Very truly yours,



Michael J. McLaughlin
Co-Communication Director
Cambrians for Water

"Where the Pines meet the Sea"

CAMBRIA CHAMBER OF COMMERCE

767 MAIN STREET, CAMBRIA, CA 93428 • (805)927-3624 • FAX (805)927-9426
www.cambriachamber.org

September 18, 2014

Ken Harris, Executive Director
Central Coast Regional Water Quality Control Board
895 Aerovista Place, Suite101
San Luis Obispo, CA. 93401-7906

Re: CCSD Regular Coastal Development Permit Application, SLO Ref. #CDP DRC2013-00112; CCRWQCB Title 27 Permit, *et. al.*

Dear Mr. Harris,

I am President of the Cambria Chamber of Commerce ("Chamber"), which represents approximately 350 businesses served by the Cambria Community Services District ("CCSD"). The Chamber strongly urges the Central Coast Regional Water Quality Control Board to grant CCSD's pending application for a Title 27 Permit covering the evaporation pond and related equipment to be constructed and operated at CCSD's Emergency Water Supply Project ("Project") as well all other Project permits within the CCRWQCB's jurisdiction.

As the organization that represents the vast majority of business owners and operators in Cambria, the Chamber is acutely aware of just how much the current drought has cost the Cambria economy in terms of money and effort. Since early this year, businesses and residents of Cambria have managed to avoid running out of water, but only through extreme conservation measures that have cut consumption by at least 40% from the prior year's levels. Businesses are required to cut their water consumption by 20% or else face stiff surcharges. They have stepped up to the plate and taken extraordinary steps, such as shifting to portable toilets for restaurant patrons, selling bottled water and serving it in compostable cups, investing considerable sums in ultra-efficient dishwashing equipment, and so forth. As a result, we are getting through this drought. But this is not a normal way to do business and ensure public health.

Tourism is the main source of income and hence, jobs in the community. To be specific: The most recent federal Economic Census shows that 1,274 people are employed in Cambria, with the vast majority either in accommodation and food services (751) or retail trade (292). Some retailing here mainly serves full-time residents, but much of it – such as antique stores and art galleries – is tourist-driven. And these statistics do not include the hospitality business of roughly 300 homes licensed as vacation rentals. If the severe water use restrictions persist – or worse yet, if they prove inadequate to maintain a supply of safe drinking water -- our economy will suffer as tourists are discouraged from coming and restaurants, motels, retailers and other visitor-serving businesses are forced to close.

We have heard some opponents of the Project claim that the "business community" is at odds with "residents," in that it gets more than its fair share of water. Leaving aside the fact that many residents of Cambria depend on businesses here for their livelihood, we submit that all Cambrians have a common interest in getting a more secure water supply. And all Cambrians, through the new rate increase, are paying for it. Rate hikes for businesses are at least as high as they are for non-business customers.

We believe that our support for the Project is in line with that of the majority of Cambria's residents. We can cite at least two reasons for this belief. One is the explosive growth of a new grass-roots group, Cambrians for Water, which was founded just a month ago and now has about 500 members. Another is the fact that, when the substantial water rate increase was proposed to pay for the project, only 20% of affected water users chose to protest it. This was in spite of a concerted and well-publicized effort by opponents of the Project to block the rate increase. The opponents of the Project failed by a wide margin to obtain the necessary signatures to block the increase during the 45-day period allowed under the law.

We defer to the CCSD experts, consultants and contractors to address the technical issues involved in the Permit process. We believe that all significant issues associated with the Permit application have been addressed, including the evaporation pond, potential impact on wildlife and other environmental matters under review including the blowers and other equipment used for evaporation.

The Project, as you know, is designed to relieve the current severe water shortage, though it also can be incorporated into a long-term water strategy to prevent similar crises in the future. It is also designed to meet the needs of *current* residents and businesses, not to spur new growth. For decades now, Cambria has been flirting with disaster because of its chronic water shortage. This year has been a close call -- and the drought isn't over yet. The majority

here supports the project, we believe, because they don't want to have to go through that experience again.

We ask that you and your staff and Board expedite these permit applications to a successful conclusion, which will result in issuance of all necessary permits within your jurisdiction.

Thank you for your anticipated consideration of our position.

Very truly yours,

Mel McColloch

Mel McColloch
President
Cambria Chamber of Commerce

Lodge, Ryan@Waterboards

From: Kolb, Howard@Waterboards
Sent: Tuesday, October 14, 2014 9:48 AM
To: Lodge, Ryan@Waterboards
Subject: FW: Comments for Cambria Emergency Water Project

FYI

From: Christine Heinrichs [mailto:christine.heinrichs@gmail.com]
Sent: Tuesday, October 14, 2014 9:40 AM
To: Kolb, Howard@Waterboards
Subject: Comments for Cambria Emergency Water Project

Central Coast Water Board Offices
895 Aerovista Place - Suite 101
San Luis Obispo, CA 93401

Howard.Kolb@waterboards.ca.gov

14 October 2014

Re: Cambria Emergency Water Project Waste Discharge Requirements

Central Coast Regional Water Quality Control Board (Water Board) staff has prepared draft Waste Discharge Requirements Order No. R3-2014-0050 and draft Monitoring and Reporting Program No. R3-2014-0050 for the Cambria Community Services District (CCSD) Emergency Water Re-injection Project. This draft order would authorize the Cambria Community Services District to re-inject highly treated groundwater from beneath its existing percolation ponds into the San Simeon aquifer. Water Board staff is also proposing revisions to existing waste discharge requirements for the CCSD wastewater treatment plant, Order No. 01-100, to allow the discharge of micro-filtration backwash water to an existing percolation pond.

Central Coast Regional Water Quality Control Board (Water Board) staff prepared the draft Waste Discharge Requirements Order No. R3-2014-0047, draft Monitoring and Reporting Program No. R3-2014-0047, and a draft staff report for the Cambria Community Services District Class II Surface Impoundment. This draft Order is prepared to authorize the Cambria Community Services District to properly dispose of brine that is planned to be generated by the Cambria Emergency Water Supply Project.

To the Board:

Cambria Community Services District's application for surface impoundment evaporation pond and re-injection of recycled water raises many questions that remain unanswered. I ask the board to defer action on the request for permits until further information has been shared with this board and the community.

The CSD Board has other options for meeting emergency and long-term water needs, such as purchasing water from local ranchers, replacing leaky infrastructure, rainwater catchment, gray water systems. Please defer action on these requests until action is taken on other options.

The EPA has found old, leaky infrastructure with deferred maintenance, such as Cambria's, may lose as much as 60 percent of the water from its pipes. Cambria has experienced several large water losses due to broken pipes during the drought. Cambria's CSD has again deferred the water rate increase that will be needed to replace the infrastructure. That alone could solve the water shortage. The board has deferred action until January.

Local rancher Clive Warren has offered his reservoir for water storage. Someday it will rain again and we should be prepared to store it.

Cambria's CSD has not approached the drought thoughtfully. As soon as a Stage 3 Emergency was declared, Cambrians cut their water use by more than 40 percent. Had the CSD acted sooner, by raising water rates and mandating conservation measures, water could have been conserved to carry us through this dry time.

Because Cambria is located within the Monterey Bay National Marine Sanctuary, NOAA/NMFS has submitted comments regarding the required legal protections of this area. In NOAA's Guidelines for Desalination Plants in the Monterey Bay National Marine Sanctuary, available online, it lists many reservations about siting desalination plants within the Sanctuary.

"Desalination should only be considered when other preferable alternatives for meeting water needs, such as increased conservation and wastewater recycling are maximized or otherwise determined not feasible, and it is clear that desalination is a necessary component of the region's water supply portfolio….

"Without careful planning and mitigation measures, desalination plants have the potential to harm the marine environment. One of the major concerns associated with desalination facilities are the impacts that result from the introduction to the ocean of concentrated saline brine that may kill or harm sensitive marine organisms."

Because ocean outfall will not be permitted in the Sanctuary, the project must rely on the evaporation pond to process the toxic products of desalination. The evaporation pond site, with the associated blowers, is adjacent to a popular State Park Campground. The noise and potentially noxious or even toxic spray will impact that campground.

This area of Cambria's coastline is also protected as a State Marine Park. As such, its natural, cultural and recreational resources are legally protected. Although CEQA has been suspended for emergency projects, the area in question is sensitive habitat to several endangered species. In protecting them, we protect ourselves. This project should not go forward without addressing those considerations.

California's Desalination Planning Handbook states: "The State Water Plan also recommends more regional approaches to water resources planning and management. Increasingly, emphasis is being given to conducting more comprehensive, region-wide planning as the basis for funding water resources projects throughout the state.

"The implications of this regional, cooperative approach to water resources planning are significant to desalination. Presumably, desalination will be considered in the broader context of regional water resources needs, as one of several possible water management strategies to meet those needs."

This project has not considered regional needs. It has not been vetted for environmental concerns. Several state and federal agencies has expressed general and specific criticisms of it.

Please consider carefully the full effects of this project, and the CSD's alternatives, before allowing it to proceed.

Thank you.

Christine Heinrichs
1800 Downing Ave.
Cambria, CA 93428

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September 15, 2014

Ken Harris, Executive Director
Central Coast Regional Water Quality Control Board
895 Areovista Place, Suite 101
San Luis Obipo, Calif. 93401-7906

RE: CCSD Regular Coastal Development Permit Application, SLO #CDP DRC2013-00112

Dear Mr. Harris,

My wife and I are the owner of undeveloped land within the town of Cambria, and I am writing to express support for the Cambria Community Services District's ("CCSD") Emergency Water Supply Project (Project). I submit this letter to urge the Board to grant CCSD a Title 27 permit for the the Project.

Cambria is currently suffering under exceptional water use restrictions that impact the community's quality of life and well-being. The town needs the Project to stabilize its water supply, and return residents and businesses to normal.

Cambria has been struggling for decades to identify and develop a supplemental water supply project. The design of the Project has been found to be the least impact to the environment of any project studied to date.

It is my understanding that your Board exists to protect all Californians regarding their water quality and supplies. As we understand the CCSD project, it is to be used both to deal with the present drought emergency and to ensure that Cambria will have an adequate supply of water to prevent crises in the inevitable droughts of the future.

I also support Cambrians for Water and that organization's efforts to support the CCSD in gaining all necessary permits from the Central Coast Regional Water Quality Control Board.

My wife and I respectfully request the Board's approval of the necessary permits so that the project can move forward.

Sincerely,

Dale Rutherford

Ken Harris, Executive Director
Central Coast Regional Water Quality Control Board

CCSD Regular Coastal Development Permit Application, SLO #CDP DRC2013-00112

Dear Mr. Harris,

I am a resident of Cambria, and I support the Cambria Community Services District's ("CCSD") Emergency Water Supply Project ("Project". I submit this letter to urge the Board to grant CCSD a Title 27 permit for the evaporation pond and related equipment at the Project.

Cambria is currently suffering under exceptional water use restrictions that impact the community's quality of life and well-being. Our town needs the Project to stabilize our water supply and return our lives to normal.

We Cambrians have been under severe restrictions when it comes to using our fresh water. Our lifestyle and everyday habits have been impacted. We have cut our personal use of water drastically. We do not even have public bathrooms any more in town!

I understand that your Board exists to protect all Californians regarding their water quality and supplies. As we understand the CCSD project, it is to be used both to deal with the present drought emergency and to ensure that Cambria will have an adequate supply of water to prevent crises in the inevitable droughts of the future.

I also support Cambrians for Water and that organization's efforts to support the CCSD in gaining all necessary permits from the Central Coast Regional Water Quality Control Board.

Date 9/17/14

Judith J. Holland
Name Signed

JUDITH J. HOLLAND

Lodge, Ryan@Waterboards

From: Lynne Harkins <l.harkins@charter.net>
Sent: Friday, October 17, 2014 4:07 PM
To: Lodge, Ryan@Waterboards
Subject: Comments Cambriacsd class ll surface impoundment

To: CCRWQCB
San Luis Obispo, CA
ryan.lodge@waterboards.ca.gov

From:
Lynne Harkins
L.Harkins@charter.net
October 17, 2014

re: Comments on CCRWQCB CambriaCSD class ll surface impoundment discharge requirements

In addition to significant questions about the structural adequacy of this surface impoundment, there are unanswered questions
about the impacts of the legacy of mercury mining in both San Simeon Creek and the Santa Rosa Creek watersheds from which Cambria draws
all of its water..questions which this current proposed project appears to dismiss; which does not serve the public's interests.

Evidence from the CCRWQCB's own 1999 report on "Inactive Metal Mines in Four San Luis Obispo County Watersheds..." by David Schwartzbart and more recent statements/information from Mr. Schwartzbart supply evidence that the mercury mining legacy needs to be considered. As an example,
in an April 16, 2009 email, in which I asked if:

"... there might well be significant, though unevenly distributed, strata and pockets of organic and inorganic mercury buried in deep sediments..."

Mr. Schwartzbart responded:
"Your summary is accurate with the following caveats and
clarifications. ... Mercury is not the only pollutant released from vicinity mercury mines
and complete environmental analysis considers all potential pollutants.

Mine generated pollution in San Simeon and Santa Rosa Creek watersheds
is a current and future environmental issue, independent of Water Board
actions (such as the approximately 1997 action cited)."
****
Cambria CSD wastewater biosolids tests and CCAMP data also support a need for caution in terms of holding and evaporating large quantities of RO
toxic brine

*2004 CCAMP found > 500ppb total Hg in sediment at SS Creek footbridge in State Park

*2011 & 2013 biosolids reports for Cambria Wastewater treatment had > 1000 ppb dry wt. total Hg.
Secondary treatment would not remove all of Hg in wastewater, so some Hg/MeHg potentially going up to percolation ponds
in solution and/or suspension. Mr. Schwartzbart devised a 1% in suspension formula for a sediment management plan for Santa Rosa

Creek/Main St Bridge project which I applied to the >200 and >300 ppb wet samples for the biosolids tests to get 2-3 ppb concentration getting to
percolation ponds.

*newer research points at wastewater plants as being site for methylation

There are also tests from Cambria CSD drinking water wells (formerly available thru CDPH)which show mercury present in the drinking water supply from .02 to .05 parts per billion. That doesn't seem like a lot, but some states have determined that 1.5 parts per trillion mercury in drinking water is a more appropriate level for human health.

Lastly, there's the research regarding total and methylmercury being transported and deposited by means of fog...important because that's what you would be
permitting here: a year-round artificial fog machine.

http://onlinelibrary.wiley.com/doi/10.1029/2011GL050324/abstract

The average content in CA coastal fog testing was 3.5 parts per trillion...intermittently and seasonally.
I think we ought to consider very carefully before creating a situation that could amplify that kind of airborne mercury situation.

From USGS facts about mercury

Facts about mercury:

- Highly toxic to the nervous system
- Persistent in the environment
- Bioaccumulates (higher concentrations in tissues of aquatic plants and animals than in water)
- Biomagnifies (higher concentrations at increasingly higher levels in the food chain)
- Numerous chemical forms in air, water, sediment, and biota
-

Total and monomethyl mercury in fog water from the central California coast

Peter S. Weiss-Penzias,[1] Cruz Ortiz Jr.,[1] R. Paul Acosta,[1] Wesley Heim,[2] John P. Ryan,[3] Daniel Fernandez,[4] Jeffrey L. Collett Jr.,[5] and A. Russell Flegal[1]

Received 11 November 2011; revised 4 January 2012; accepted 10 January 2012; published 11 February 2012.

[1] Total mercury (HgT) and monomethyl mercury (MMHg) concentrations in fog collected from 4 locations in and around Monterey Bay, California during June-August of 2011 were 10.7 ± 6.8 and 3.4 ± 3.8 ng L^{-1} respectively. In contrast, mean HgT and MMHg concentrations in rain water from March-June, 2011 were 1.8 ± 0.9 and 0.1 ± 0.04 ng L^{-1} respectively. Using estimates of fog water deposition from 6 sites in the region using a standard fog water collector (SFC), depositions of HgT and MMHg via fog were found to range from 42–4600 and 14–1500 ng m^{-2} y^{-1}, which accounted for 7–42% of HgT and 61–99% of MMHg in total atmospheric deposition (fog, rain, and dry deposition), estimated for the coastal area. These initial measurements suggest that fog precipitation may constitute an important but previously overlooked input of MMHg to coastal environments. Preliminary comparisons of these data with associated chemical, meteorological and oceanic data suggest that biotically formed MMHg from coastal upwelling may contribute to the MMHg in fog water. **Citation:** Weiss-Penzias, P. S., C. Ortiz Jr., R. P. Acosta, W. Heim, J. P. Ryan, D. Fernandez, J. L. Collett Jr., and A. R. Flegal (2012), Total and monomethyl mercury in fog water from the central California coast, *Geophys. Res. Lett.*, *39*, L03804, doi:10.1029/2011GL050324.

1. Introduction

[2] Mercury (Hg) is a heavy-metal neurotoxin that bioaccumulates and bio-concentrates, primarily as monomethyl mercury (MMHg), in aquatic food webs to levels that are unsafe for human consumption [*Fitzgerald et al.*, 2007]. The sources (natural and industrial) of MMHg in aquatic organisms is a matter of considerable debate, but atmospheric deposition has been implicated as a pathway of available Hg to the water and sediments where bacteria convert it MMHg [*Lindberg et al.*, 2007]. Presumably, this includes all forms of atmospheric Hg deposition: wet (rain, snow, fog/cloud) and dry (direct reaction of airborne Hg with the surface).

[3] The complex speciation of Hg further complicates understanding its atmospheric inputs to aquatic ecosystems. MMHg is present in wet deposition, although measurements in rainwater indicate that MMHg only accounts for ∼5% of the HgT in rain [*Bloom and Watras*, 1989; *Munthe et al.*, 2001; *Conaway et al.*, 2010]. However, there have only been a few measurements of HgT in fog or cloud water [*Malcolm et al.*, 2003; *Ritchie et al.*, 2006] – and those studies did not report measurements of MMHg. Consequently, the contribution of fog deposition to Hg fluxes is essentially unknown in coastal areas where fog water inputs are relatively substantial, such as much of coastal California.

[4] The source of MMHg in atmospheric water has been the subject of considerable debate. One hypothesis suggests that dimethyl mercury (DMHg) formed in ocean sediments is brought to the surface and overlying atmosphere due to upwelling where it photodecomposes into MMHg [*Black et al.*, 2009; *Fitzgerald et al.*, 2007; *Hammerschmidt et al.*, 2007; *St. Louis et al.*, 2007]. DMHg has been observed in surface waters of the Arctic Ocean [*St. Louis et al.*, 2007] and the Monterey Bay during times of upwelling [*Conaway et al.*, 2009]. However, rainwater samples from the Pacific coast during time of upwelling [*Conaway et al.*, 2010] and from the equatorial Pacific [*Mason et al.*, 1992] were not enhanced in MMHg. Coastal fog would presumably have more connection with surface waters compared to rain, but there have been no measurements of MMHg in fog to date.

[5] The second hypothesis of MMHg formation in atmospheric water is an abiotic mechanism involving reactions between Hg(II) compounds and the acetate ion [*Gardfeldt et al.*, 2003; *Hammerschmidt et al.*, 2007]. However, recent work has called this mechanism into question [*Bittrich et al.*, 2011b] as being too slow to compete with photo-demethylation in rain water.

[6] In this work HgT, MMHg, and ion concentrations were measured in fog water and those data were compared with meteorological and other indicators of oceanic upwelling in order to provide the first estimate of wet deposition flux of HgT and MMHg through fog precipitation to coastal California and a discussion of possible sources.

2. Methods

[7] Twenty-five fog water samples were collected between 13-June-11 and 28-August-11 using a single fog collector that was moved between four different locations near Santa Cruz, California (37°N, 122°W) (Table 1): (1) on the roof of a building at the University of California, Santa Cruz (UCSC), at 230 m above sea level near the top of the redwood forest canopy and 6 km inland; (2) on a bluff at UCSC's Long Marine Laboratory (LML), at 10 m above sea

[1]Department of Microbiology and Environmental Toxicology, University of California, Santa Cruz, California, USA.
[2]Moss Landing Marine Laboratory, California State University, Moss Landing, California, USA.
[3]Monterey Bay Aquarium Research Institute, Moss Landing, California, USA.
[4]Division of Science and Environmental Policy, California State University, Monterey Bay, Seaside, California, USA.
[5]Department of Atmospheric Science, Colorado State University, Fort Collins, Colorado, USA.

0094-8276/12/2011GL050324

Table 1. Mean, Standard Deviation and Range of Blank Corrected HgT and MMHg Measurements in Fog and Rain Water

Sample Location	Sample Type	Sample Dates 2011	Samples (HgT, MMHg)	Mean HgT (ng L^{-1})	Range HgT (ng L^{-1})	Mean MMHg (ng L^{-1})	Range MMHg (ng L^{-1})	% MMHg
MLML	Fog	6/13	1, 0	7.2	–	–	–	–
Transit to mooring M1	Fog	6/14, 6/22	2, 0	13.3 ± 3.2	11.1–15.6	–	–	–
UCSC	Fog	6/26–8/8	13, 3	11.5 ± 7.9	2.6–28.7	6.9 ± 4.7	1.4–9.8	24–100
LML	Fog	8/18–8/28	9, 5	8.7 ± 5.4	3.6–19.0	1.3 ± 0.6	0.4–1.9	7–27
All Locations	Fog	6/13–8/28	25, 8	10.7 ± 6.8	2.6–28.7	3.4 ± 3.8	0.4–9.8	7–100
UCSC	Rain	3/17–6/4	5, 2	1.8 ± 0.9	1.1–3.3	0.1 ± 0.04	0.07–0.13	2–10

level in open chaparral and grassland; (3) on a research boat (Moss Landing Marine Laboratory's *RV John H. Martin*), at 5 m above sea level in the harbor at Moss Landing; and (4) in transit to and in the vicinity of the Monterey Bay Aquarium Research Institute (MBARI) mooring M1 in Monterey Bay, at 5 m above sea level and approx. 20 km offshore (Figure 1). Five rain water samples were also collected at UCSC in an open location between 17-March-2011 and 4-June-2011.

[8] The fog was collected using a Caltech Active Strand Cloudwater Collector version 2 (CASCC2) [*Demoz et al.*, 1996], which was connected with 1/4″ Teflon tubing and fittings to an acid-cleaned 250 mL borosilicate glass jar (IChem corp.) with a Teflon-lined lid. The CASCC2 was operated using an automatic timer between the local times of 22:00 to 09:00 and secured to a base 1 m off the ground. The exception was when the sampler was deployed on the boat, where it ran continuously and was approximately 5 m above the sea surface.

[9] Fog sample volumes ranged from 1 mL to 160 mL and samples with volumes <10 mL were not considered. Samples were refrigerated immediately after collection, and then acidified to 0.4% HCl (Trace Metal Grade, Fisher Sci.) within 48 hours. They were subsequently analyzed for HgT within 2 weeks and for MMHg within 60 days of sample collection, in line with accepted storage times [*Parker and Bloom*, 2005]. Due to low sample volumes and replicate HgT analyses, only a subset (n = 8) of the total number of fog samples (n = 25) could be analyzed for MMHg concentrations.

[10] Rain water was collected with an open glass funnel into an acid-cleaned Teflon bottle, as described by *Conaway et al.* [2010]. The funnels were protected from dry deposition of Hg by keeping them covered during dry periods. These samples were also acidified and stored in the refrigerator. They were then analyzed for HgT within 45 days and for MMHg within 180 days.

[11] HgT and MMHg were determined using EPA methods 1631 and 1630, respectively, described in detail by *Conaway et al.* [2010] and references therein. Fog water method blanks were obtained by spraying the collection strands with at least 500 mL of high purity (18.2 MΩ cm) water (Milli-Q) from a standard polyethylene wash bottle, and letting this water drain out. Then a sample jar was connected and ~200 mL of blank sample was obtained by spraying with more Milli-Q. Fog water method blanks were collected within 8 hours of sample collection, usually in the evening before nighttime fog collection. The mean HgT and

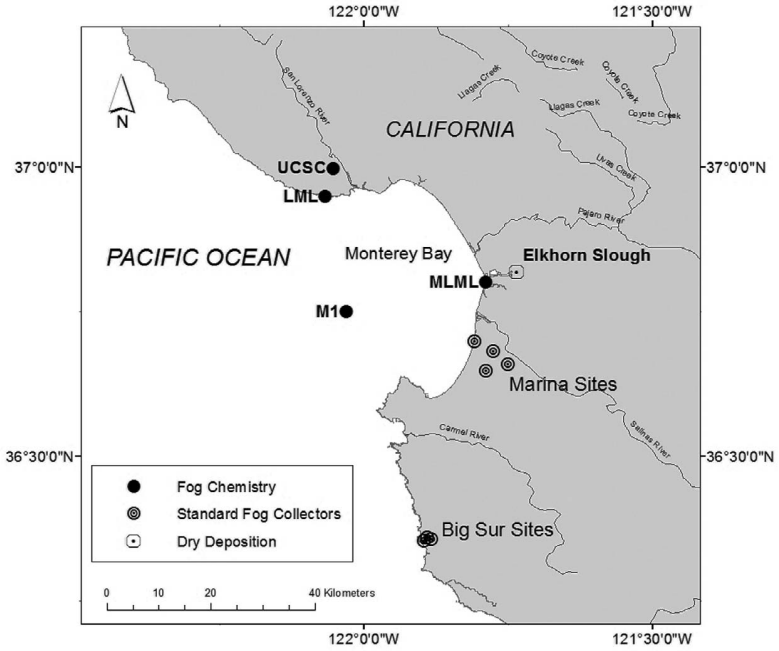

Figure 1. Map of study location in California near the Monterey Bay. Samples for HgT, MMHg and anion analysis were collected at the Fog Chemistry sites, fog water collection was done at the Standard Fog Collector sites, and Hg dry deposition was done at Elkhorn Slough.

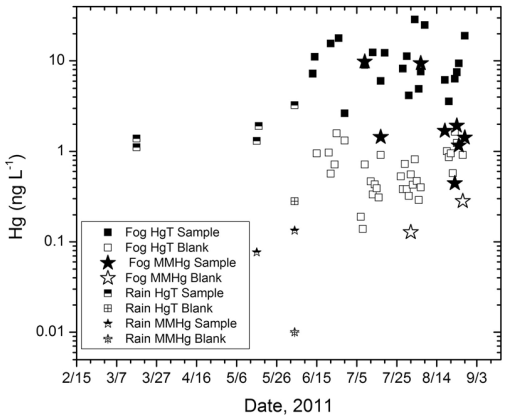

Figure 2. HgT and MMHg concentrations and method blanks, from fog and rain water samples taken at 4 locations near Santa Cruz, California.

MMHg concentrations in fog water method blanks were 0.7 ± 0.4 (n = 33) and 0.2 ± 0.1 ng L^{-1} (n = 2), respectively, which represented on average 7% and 6% of the HgT and MMHg concentrations in fog samples. Rain water method blanks were determined as described previously [*Conaway et al.*, 2010]. Compared to the rain water method blanks for HgT and MMHg, the fog water blanks were considerably larger, which could be due to non-glass and non-Teflon components and the large amount of surface area associated with the CASCC2. Reported values for HgT, MMHg and anion concentrations were blank corrected by subtracting from each sample the mean blank value, which contributes ∼15% to the inaccuracy in quantifying HgT and MMHg.

[12] Fog water was also collected during the summer of 2010 at four locations near the Monterey Bay (Figure 1) using a 1.0 m^2 vertically-oriented standard fog collector (SFC) at 2 m height off the ground, connected to a tipping-bucket rain gauge (auxiliary material).[1]

[13] Dry deposition measurements of Hg at Elkhorn Slough (NADP site CA48) involved the deployment of downward-facing polysulfone cation-exchange membranes which selectively absorbed gaseous oxidized Hg from the air (auxiliary material).

[14] Meteorological and oceanographic data were retrieved from the M1 mooring operated by MBARI (Figure 1). Acetate and nitrate ion concentrations were determined on a subset of fog samples (n = 12) using an ion chromatograph with suppressed conductivity detection.

3. Results

[15] Concentrations of HgT and MMHg in fog and rain water samples are shown in Figure 2. Mean (not volume-weighted) HgT and MMHg concentrations of the fog samples from all locations were 10.7 ± 6.8 and 3.4 ± 3.8 ng L^{-1}, respectively; and mean HgT and MMHg concentrations for all rain samples were 1.8 ± 0.9 and 0.1 ± 0.04 ng L^{-1}, respectively (Table 1). Six samples were simultaneously measured for MMHg and the acetate and nitrate ions (auxiliary material). There were variations in fog water HgT concentrations between the UCSC and LML sampling locations, however the differences were not significant ($p > 0.05$; t-test). In contrast, two fog samples at the inland (6 km) station at UCSC had much higher MMHg concentrations (9.4 and 9.8 ng L^{-1}), than the third fog sample from UCSC (1.4 ng L^{-1}) and all five samples taken at the sea bluff site LML (mean = 1.3 ± 0.6 ng L^{-1}). The two fog samples with the highest MMHg concentrations exceeded their corresponding HgT concentrations by up to 27%, which we presume is due to uncertainties associated with method blank corrections.

3.1. Comparison With Previous Measurements

[16] Previous studies have shown that mean HgT in fog water at several coastal locations in New Brunswick, Canada was 25 ng L^{-1} and ranged from 2–450 ng L^{-1} [*Ritchie et al.*, 2006], while HgT in cloud water from Mt. Mansfield, Vermont had a mean concentration of 25 ng L^{-1} and ranged from 8–72 ng L^{-1} [*Malcolm et al.*, 2003]. A single sample from Fresno, California during a wintertime tule fog event revealed an HgT concentration of 11 ng L^{-1} [*Bittrich et al.*, 2011a].

[17] Previously reported volume-weighted mean (and range) of HgT concentrations in rain water from Santa Cruz were 6 (2–18) ng L^{-1} [*Conaway et al.*, 2010] and 6 (1–17) ng L^{-1} [*Steding and Flegal*, 2002], which are higher than what we report here (2 (1–3) ng L^{-1}). This disparity may be an artifact of the small number of samples analyzed or different sample or event sizes.

[18] MMHg concentrations in rain water from this work (0.1 ± 0.04 ng L^{-1}) were virtually identical to those previously measured in rain water in Santa Cruz (0.1 ± 0.1 ng L^{-1}) [*Conaway et al.*, 2010]. In contrast, the average MMHg concentration of our fog water samples is approximately 5-fold greater than the previously reported highest MMHg values in rain water [*Munthe et al.*, 2001; *Kieber et al.*, 2008; *Conaway et al.*, 2010]. Furthermore, since there are no reported MMHg measurements in fog water in the literature, the elevated MMHg concentrations reported here suggest that fog deposition could be a source of MMHg to coastal environments where it readily bioaccumulates.

3.2. Fog Water Deposition of HgT and MMHg

[19] While the quantity of precipitation in rain water can be easily determined, this is not the case for the precipitation of fog water, which must be intercepted by vegetation or a surrogate surface in order to be quantified. A range of values for fog precipitation in coastal California have been reported in the literature, from 0.4–1.2 L m^{-2} d^{-1} [*Fischer et al.*, 2009; *Dawson*, 1998]. Fog water collections using a standard 1.0 m^2 fog collector (SFC) in the Monterey Bay region revealed an even wider variation in fluxes depending on location (4–432 L during a 90-d campaign during June-August, 2010) (auxiliary material). While the actual deposition flux at any given location will vary according to vegetation characteristics, we assume that the range of fluxes measured by the SFCs was similar to that received per square meter of vegetated surface in an equivalent summertime period of 2011 when the fog chemistry was determined. Note that this equates to an average daily fog water flux range of 0.044 to 4.8 L m^{-2} d^{-1}, overlapping the literature values for California fog precipitation cited above.

[1]Auxiliary materials are available in the HTML. doi:10.1029/2011GL050324.

Table 2. Deposition Estimates Via Fog, Rain, and Dry for HgT and MMHg Based on Measurements Taken in the Monterey Bay Region[a]

Deposition Type, Time Period	Hg Species	Deposition ng Hg m^{-2}
Fog, June–August	HgT	42–4600
Rain, November–April	HgT	3610 ± 2400
Dry, Annual	HgT	2700 ± 1400
Fog, June–August	MMHg	14–1500
Rain, November–April	MMHg	9 ± 7

[a]The deposition via rain was obtained from *Conaway et al.* [2010]. Dry deposition was measured at site CA48 (Elkhorn Slough).

We then can calculate rough estimates of HgT and MMHg deposited to the Monterey Bay coastal area during the summer of 2011: 42–4600 and 14–1500 ng m^{-2}, respectively.

[20] Putting the Hg flux from fog water values into context (Table 2), HgT and MMHg deposition via rain water in Santa Cruz were recently estimated at 3610 and 9 ng m^{-2} over the rainy season of 2007–2008 (November–April) [*Conaway et al.*, 2010]. Mean Hg flux from dry deposition was also estimated from measurements at Elkhorn Slough at 2700 ng m^{-2} y^{-1} (auxiliary material). Thus, the relative contribution of fog water deposition of HgT and MMHg to total atmospheric deposition is estimated here to be 7–42% and 61–99%, respectively. These ratios suggest that fog water may constitute a large fraction of MMHg in that deposition. It is also important to emphasize the importance of this process to Hg loadings during the dry season, when fog is the main source of moisture and many coastal plant communities that have been observed to utilize fog water over ground water for metabolism [*Dawson*, 1998].

3.3. Upwelling as a Potential Source of MMHg in Coastal Fog

[21] To explore the hypothesis that high MMHg concentrations in fog could be a result of evasion of DMHg from coastal ocean upwelling, we compare the MMHg measurements with oceanic and meteorological conditions at ocean mooring M1, which is located in the mean path of upwelling filaments that flow into the Monterey Bay. The plots in Figures 3a–3d show that the anomalously high MMHg values at UCSC coincided with M1 ocean surface conditions that were relatively saline yet warm and atmospheric conditions marked by a relatively high sea-air temperature difference and relatively high relative humidity. With recent upwelling, conditions at the surface are typically saline and cold, so saline and warm conditions indicate recent upwelling followed by the warming that occurs during wind relaxations and/or reversals. By examining wind directions and speeds during the entire sampling period (July 1–Aug. 31) (Figure 3e), we note that the times of lower MMHg fog concentrations (7/17, 8/18, 8/23–25, 8/28) coincided with periods of steady upwelling favorable winds (as indicated by relatively strong northwesterly winds), whereas the highest MMHg concentrations followed a sequence of strong upwelling/strong relaxation of upwelling. These data suggest that the typical cycles of upwelling and relaxation may act as an Hg pump. From the starting hypothesis that upwelling brings DMHg-bearing sediments in contact with the oceanic mixed layer and overlying atmosphere, our data suggest that 1) the presence of recently upwelled waters (high salinity) is required and 2) the transfer of Hg into fog and subsequent transport to land may be enhanced at a specific period in upwelling/relaxation cycles, when the surface ocean has warmed, the sea-air temperature gradient is enhanced, and atmospheric humidity is elevated. Measurements of DMHg in seawater and the overlying atmosphere in association with a knowledge of upwelling and relaxation cycles would be needed to verify this hypothesis.

4. Summary

[22] Twenty-five fog water and five rain water samples were collected during the spring and summer of 2011 at several locations in the Monterey Bay area. Mean HgT and

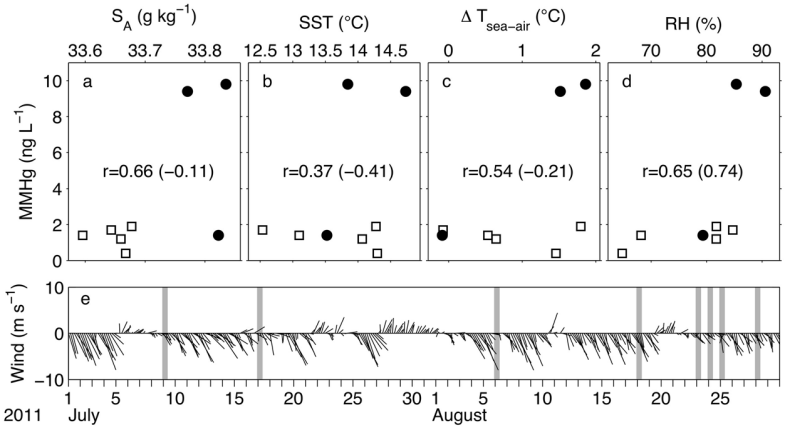

Figure 3. Relationships between MMHg in fog samples at UCSC (solid circles) and LML (open squares), and mean values of (a) absolute salinity (S_A), (b) sea surface temperature, (c) the sea-air temperature difference, and (d) relative humidity at mooring M1 from the 24-h preceding the end of the fog sampling time. The first number on each plot is the correlation coefficient using all the data and the second number using LML samples only. (e) Stick plot showing 4-h mean wind direction and wind speed at mooring M1 over the duration of fog samples (shaded bars) analyzed for MMHg. Stick length indicates wind speed and the direction the stick is pointing indicates the direction the wind is blowing towards. Upwelling favorable winds are directed southeastward (alongshore/equatorward).

MMHg concentrations of fog water samples were 10.7 ± 6.8 and 3.4 ± 3.8 ng L^{-1} respectively. MMHg as a percentage of HgT ranged from 7 to 100%. In contrast, mean HgT and MMHg concentrations in rain water were 1.8 ± 0.9 and 0.1 ± 0.04 ng L^{-1}, or 2–10% MMHg. The MMHg concentrations in fog water were about a factor of five higher than those seen previously in rain water and appear to constitute an important, and previously unrecognized, source of MMHg to coastal ecosystems.

[23] Based on a range of regional fog water fluxes estimated using standard fog water collectors and our measured HgT and MMHg concentrations, it is estimated that fog deposition accounts for depositions of 42–4600 ng m^{-2} for HgT and 14–1500 ng m^{-2} for MMHg along the central California coastline during its foggy season. Those fog water fluxes would, therefore, account for 7–42% of HgT and 61–99% of MMHg in the total atmospheric deposition (rain, fog and dry) in that region.

[24] A source of MMHg in fog is thought to be degassing of DMHg from oceanic upwelling with subsequent conversion to MMHg and uptake by cloud droplets. The data presented here suggest that the highest MMHg concentrations in fog water coincided with upwelling followed by relaxation cycles, when the surface ocean had warmed, the sea-air temperature gradient was enhanced, and atmospheric humidity was elevated. However, the small sample size in this study and the potentially far reaching consequences of the results underscore the need to continue to collect fog water in various coastal environments to determine the spatio-temporal variations in HgT and MMHg concentrations along with more detailed measurements of fog water deposition fluxes to regional ecosystems.

[25] **Acknowledgments.** This research was funded by a grant from the Packard Endowment for Ocean Sciences and Technology through the Institute of Marine Sciences at UCSC. We acknowledge the Mae Gustin Lab at University of Nevada Reno with funding from the Electric Power Research Institute. Technical help was provided by Priya Ganguli, Christopher Conaway, Zachary Janatpour, and Robert Franks.

[26] The Editor thanks two anonymous reviewers for their assistance in evaluating this paper.

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P. R. Acosta, A. R. Flegal, C. Ortiz Jr., and P. S. Weiss-Penzias, Department of Microbiology and Environmental Toxicology, University of California, 1156 High St., Santa Cruz, CA 95064, USA. (pweiss@ucsc.edu)

J. L. Collett Jr., Department of Atmospheric Science, Colorado State University, 1371 Campus Delivery, Fort Collins, CO 80523, USA.

D. Fernandez, Division of Science and Environmental Policy, California State University, Monterey Bay, 100 Campus Ctr., Seaside, CA 93955, USA.

W. Heim, Moss Landing Marine Laboratory, California State University, 8272 Moss Landing Rd., Moss Landing, CA 95039, USA.

J. P. Ryan, Monterey Bay Aquarium Research Institute, 7700 Sandholdt Rd., Moss Landing, CA 95039, USA.

Ken Harris, Executive Director
Central Coast Regional Water Quality Control Board

CCSD Regular Coastal Development Permit Application, SLO #CDP DRC2013-00112

Dear Mr. Harris,

I am a full-time resident of Cambria and I support the Cambria Community Services District's ("CCSD") Emergency Water Supply Project, and its pending application for a regular coastal development permit ("Project"). I submit this letter to urge the Board to grant CCSD a Title 27 permit for the evaporation pond and related equipment at the Project. Cambria is currently suffering under exceptional water use restrictions that impact the community's quality of life and well-being. Our town needs this Project to stabilize our water supply during the current drought and for inevitable future droughts.

We have been under severe restrictions when it comes to using our fresh water. Our life style and everyday habits have been impacted. We have cut our personal use of water drastically. We do not even have public bathrooms anymore in town!

We understand that your Board exists to protect all Californians regarding their water quality and supplies. As we understand the CCSD project, it is to be used in an emergency only, as determined by the quantity of water available to us. When we drop below acceptable levels in our aquifers, then it will operate.

We support Cambrians for Water and that organization's efforts to support the CCSD in gaining all necessary permits from the Central Coast Regional Water Quality Control Board for its regular coastal development permit.

Date Oct. 1, 2014

Lynn Taylor
Name Signed

Lynn Taylor
Print Name

Lodge, Ryan@Waterboards

From: Mary Webb <webbmarye@me.com>
Sent: Friday, October 17, 2014 9:23 AM
To: Lodge, Ryan@Waterboards; Monica Hunter; Anderson, Tamara; Olson, Tammie@Waterboards; Adair, Chris@Waterboards; Packard, Harvey@Waterboards
Cc: Harris, Ken@Waterboards
Subject: Discharge Requirements for Cambria project

LAND DISPOSAL PROGRAM: HEARING NOTICE, DRAFT PROPOSED WASTE DISCHARGE REQUIREMENTS FOR CAMBRIA COMMUNITY SERVICES DISTRICT CLASS II SURFACE IMPOUNDMENT, SAN LUIS OBISPO COUNTY

Central Coast Regional Water Quality Control Board (Water Board) staff prepared the draft Waste Discharge Requirements Order No. R3-2014-0047, draft Monitoring and Reporting Program No. R3-2014-0047, and a draft staff report for the Cambria Community Services District Class II Surface Impoundment. This draft Order is prepared to authorize the Cambria Community Services District to properly dispose of brine that is planned to be generated by the Cambria Emergency Water Supply Project. The Water Board will hear public comments and consider this matter at its November 13-14, 2014 Board meeting in San Luis Obispo.

---------- Forwarded message ----------
From: **Christine Heinrichs** <christine.heinrichs@gmail.com>
Date: Tue, Oct 14, 2014 at 9:40 AM
Subject: Comments for Cambria Emergency Water Project
To: "Kolb, Howard@Waterboards" <Howard.Kolb@waterboards.ca.gov>

Central Coast Water Board Offices
895 Aerovista Place - Suite 101
San Luis Obispo, CA 93401

Howard.Kolb@waterboards.ca.gov

14 October 2014

Re: Cambria Emergency Water Project Waste Discharge Requirements

Central Coast Regional Water Quality Control Board (Water Board) staff has prepared draft Waste Discharge Requirements Order No. R3-2014-0050 and draft Monitoring and Reporting Program No. R3-2014-0050 for the Cambria Community Services District (CCSD) Emergency Water Re-injection Project. This draft order would authorize the Cambria Community Services District to re-inject highly treated groundwater from beneath its existing percolation ponds into the San Simeon aquifer. Water Board staff is also proposing revisions to existing waste discharge requirements for the CCSD wastewater treatment plant, Order No. 01-100, to allow the discharge of micro-filtration backwash water to an existing percolation pond.

Central Coast Regional Water Quality Control Board (Water Board) staff prepared the draft Waste Discharge Requirements Order No. R3-2014-0047, draft Monitoring and Reporting Program No. R3-2014-0047, and a draft staff report for the Cambria Community Services District Class II Surface

Impoundment. This draft Order is prepared to authorize the Cambria Community Services District to properly dispose of brine that is planned to be generated by the Cambria Emergency Water Supply Project.

To the Board:

Cambria Community Services District's application for surface impoundment evaporation pond and re-injection of recycled water raises many questions that remain unanswered. I ask the board to defer action on the request for permits until further information has been shared with this board and the community.

The CSD Board has other options for meeting emergency and long-term water needs, such as purchasing water from local ranchers, replacing leaky infrastructure, rainwater catchment, gray water systems. Please defer action on these requests until action is taken on other options.

The EPA has found old, leaky infrastructure with deferred maintenance, such as Cambria's, may lose as much as 60 percent of the water from its pipes. Cambria has experienced several large water losses due to broken pipes during the drought. Cambria's CSD has again deferred the water rate increase that will be needed to replace the infrastructure. That alone could solve the water shortage. The board has deferred action until January.

Local rancher Clive Warren has offered his reservoir for water storage. Someday it will rain again and we should be prepared to store it.

Cambria's CSD has not approached the drought thoughtfully. As soon as a Stage 3 Emergency was declared, Cambrians cut their water use by more than 40 percent. Had the CSD acted sooner, by raising water rates and mandating conservation measures, water could have been conserved to carry us through this dry time.

Because Cambria is located within the Monterey Bay National Marine Sanctuary, NOAA/NMFS has submitted comments regarding the required legal protections of this area. In NOAA's Guidelines for Desalination Plants in the Monterey Bay National Marine Sanctuary, available online, it lists many reservations about siting desalination plants within the Sanctuary.

"Desalination should only be considered when other preferable alternatives for meeting water needs, such as increased conservation and wastewater recycling are maximized or otherwise determined not feasible, and it is clear that desalination is a necessary component of the region's water supply portfolio….

"Without careful planning and mitigation measures, desalination plants have the potential to harm the marine environment. One of the major concerns associated with desalination facilities are the impacts that result from the introduction to the ocean of concentrated saline brine that may kill or harm sensitive marine organisms."

Because ocean outfall will not be permitted in the Sanctuary, the project must rely on the evaporation pond to process the toxic products of desalination. The evaporation pond site, with the associated blowers, is adjacent to a popular State Park Campground. The noise and potentially noxious or even toxic spray will impact that campground.

This area of Cambria's coastline is also protected as a State Marine Park. As such, its natural, cultural and recreational resources are legally protected. Although CEQA has been suspended for emergency projects, the area in question is sensitive habitat to several endangered species. In protecting them, we protect ourselves. This project should not go forward without addressing those considerations.

California's Desalination Planning Handbook states: "The State Water Plan also recommends more regional approaches to water resources planning and management. Increasingly, emphasis is being given to conducting more comprehensive, region-wide planning as the basis for funding water resources projects throughout the state.

"The implications of this regional, cooperative approach to water resources planning are significant to desalination. Presumably, desalination will be considered in the broader context of regional water resources needs, as one of several possible water management strategies to meet those needs."

This project has not considered regional needs. It has not been vetted for environmental concerns. Several state and federal agencies has expressed general and specific criticisms of it.

Please consider carefully the full effects of this project, and the CSD's alternatives, before allowing it to proceed.

Thank you.

Christine Heinrichs
1800 Downing Ave.
Cambria, CA 93428

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Christine Heinrichs

Lodge, Ryan@Waterboards

From: Mary Webb <webbmarye@me.com>
Sent: Friday, October 17, 2014 3:30 PM
To: Lodge, Ryan@Waterboards; Monica Hunter; Densmore, Jeff@Waterboards; Anderson, Tamara; Harris, Ken@Waterboards; Howard, Tom; Olson, Tammie@Waterboards; Densmore, Jeff@Waterboards; Saiz, Steve@Waterboards; Vasquez, Victor@Waterboards; Moody, Mitchell@Waterboards; Packard, Harvey@Waterboards; Kolb, Howard@Waterboards
Subject: Fwd: Title 22 and 27 Comments due today
Attachments: Title 22 and 27 Greenspace RWQCB.pdf; Comment Letter on IS-MND July 2014 CA Coastal Commisssion.pdf; Questions and Concerns from interagency mtg August 27, 2014.pdf; GS Initial Study July 2014.pdf

Please confirm that you received these letters as they are due today.
We would appreciate answers to the pages of questions contained in the July 22, 2014 agency letters referenced in this letter.

Thank you,
Mary Webb VP
Greenspace - the Cambria Land Trust

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> attached past letters not answered.
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>
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October 17, 2014

Central Coast Water Board Office
895 Aerovista Place, Suite 101
San Luis Obispo, CA 93401

To all concerned:

RE:
LAND DISPOSAL PROGRAM: HEARING NOTICE, DRAFT PROPOSED WASTE DISCHARGE REQUIREMENTS FOR CAMBRIA COMMUNITY SERVICES DISTRICT CLASS II SURFACE IMPOUNDMENT, SAN LUIS OBISPO COUNTY
Central Coast Regional Water Quality Control Board (Water Board) staff prepared the draft Waste Discharge Requirements Order No. R3-2014-0047, draft Monitoring and Reporting Program No. R3-2014-0047

and

HEARING NOTICE, DRAFT PROPOSED WASTE DISCHARGE REQUIREMENTS FOR CAMBRIA COMMUNITY SERVICES DISTRICT EMERGENCY WATER TREATMENT FACILITY RECYCLED WATER RE-INJECTION PROJECT , SAN LUIS OBISPO COUNTY
Central Coast Regional Water Quality Control Board (Water Board) staff has prepared draft Waste Discharge Requirements Order No. R3-2014-0050 and draft Monitoring and Reporting Program No. R3-2014-0050 for the Cambria Community Services District (CCSD) Emergency Water Re-injection Project.

Thank you for the opportunity to comment on this project:

An analysis by the Board of the reasonableness of the CSD's use of waters of the state and the impacts to public trust resources resulting from that use is required by Article X, section 2 of the California Constitution, section 275 of the Water Code, and the Public Trust Doctrine.

California Constitution
ARTICLE X, SECTION 2 WATER
SEC. 2. It is hereby declared that because of the conditions prevailing in this State the general welfare requires that the water resources of the State be put to beneficial use to the fullest extent of which they are capable, and that the waste or unreasonable use or unreasonable method of use of water be prevented, and that the conservation of such waters is to be exercised with a view to the reasonable and beneficial use thereof in the interest of the people and for the public welfare. The right to water or to the use or flow of water in or from

any natural stream or water course in this State is and shall be limited to such water as shall be reasonably required for the beneficial use to be served, and such right does not and shall not extend to the waste or unreasonable use or unreasonable method of use or unreasonable method of diversion of water. Riparian rights in a stream or water course attach to, but to no more than so much of the flow thereof as may be required or used consistently with this section, for the purposes for which such lands are, or may be made adaptable, in view of such reasonable and beneficial uses; provided, however, that nothing herein contained shall be construed as depriving any riparian owner of the reasonable use of water of the stream to which the owner's land is riparian under reasonable methods of diversion and use, or as depriving any appropriator of water to which the appropriator is lawfully entitled. This section shall be self-executing, and the Legislature may also enact laws in the furtherance of the policy in this section contained.

Due to the project's expected significant adverse effects on coastal resources, the fact that regulatory agencies characterize the project design as insufficient, non-conforming, and potentially hazardous to the health and safety of people as well as wildlife, and that the applicant incorrectly and incompletely applies Coastal policies, and the fact that the project lacks sufficient and enforceable mitigation permitting for this project should be conducted only with the benefit of a full environmental review. The need to be proactive in protecting these waters for humans and wildlife is critical. These protections have been carefully crafted thru decades of public policy processes.

Attached are July 22, 2014 Greenspace comments, and CA Coastal Commission staff comments submitted on the Cambria Emergency Water Supply Project and August 27, 2014 interagency meeting comments that remain unanswered.

We are concerned that Article X, section 2 of the California Constitution, section 275 of the Water Code, and the Public Trust Doctrine Public Trust Doctrine is not being upheld in light of the following excerpts from critical agency comments:

CA Coastal Commission staff 7-22-14 letter to CSD
"When the CCSD applied earlier this year to the County of San Luis Obispo for an emergency coastal development permit ("CDP") to address the current severe drought situation, we advised you to use that emergency permit process to implement a short-term and immediate solution rather than construct long-term major infrastructure that raises significant LCP and Coastal Act policy concerns."

"The Draft IS/MND does not adequately address a myriad of LCP and Coastal Act policy concerns, as it insufficiently identifies the project's expected adverse effects and incorrectly and incompletely applies the policies and requirements relevant to the proposed project and the affected coastal resources. We therefore believe the project needs substantial design and operational modifications in order to be found consistent with the LCP and Coastal Act."

"The project is likely to adversely affect coastal wetlands, streams, and sensitive habitat areas in a manner not consistent with the LCP or the Coastal Act."

"The project would be located within designated critical habitat for four listed species. It is likely to diminish the function and value of that habitat and is likely to result in significant adverse effects and "take" of those species."

“The project's proposed groundwater extraction and drawdown effects are likely to cause "take" of (steelhead). Importantly, this "take" is also likely during the upcoming tracer test, when the CCSD plans to extract over 100 acre-feet of water (more than 30 million gallons) from the lower watershed during the driest time of the year.”

“The CCSD's proposed approach is also inconsistent with the LCP provision that the CCSD is to prepare an instream flow study prior to proposing any major water supply project that might affect San Simeon Creek streamflows (see the LCP's Cambria Programs 11a, page 3-27). As Commission staff has requested since at least 2001, the CCSD must pursue these types of in-flow creek studies prior to the approval of any new public works project.”

“Section 2.2.3, Project Purpose: The described project purpose is unclear and inconsistent and does not include support for its contentions.”

“Section 2.7, Project Approvals: As noted previously, the project appears to be subject to consultation with federal wildlife agencies. “

“Project does not fully evaluate conformity with Coastal Zone Land Use Ordinance ("CZLUO") Section 23.04.050, section 23.080.288 (regarding public utilities on prime ag lands).”

“The proposed project also appears to be inconsistent with relevant LCP policies. For example, the IS/MND states (a page 4.4-25) that the project would conform to the LCP's requirements for wetland set backs, but as noted above, the document has not fully identified wetlands that are known or likely to be within the project footprint.”

“with regards to steelhead, LCP Section 23.07.170e(3) requires that subsurface water diversions not be allowed if they would cause significant adverse effects on steelhead.”

Condition BIO-6 regarding adaptive management “For several reasons, this condition is wholly insufficient to provide the necessary level of protection or to ensure conformity with LCP or Coastal Act requirements.”

Condition BIO-7 “is contradictory and results in inadequate mitigation and the phrase “the greatest extent possible” is vague and unenforceable. “

Condition BIO-15 “does not meet the requirements of CEQA.”

Insufficient analysis of Geology and Soils due to being in a “Geologic Study Area”. “The County has identified the site has having moderate potential for liquefaction, which could require excavation or other measures during project construction- e.g., placement of pilings, construction of a mat foundation, increased grading, etc.- that could increase the project's adverse effects beyond what is analyzed in the IS/MND.”

“We recommend the subsequent CEQA document more fully evaluate these potential effects and the mitigation measures the CCSD will need to incorporate into the project to avoid these hazards and allow conformity to the LCP”.

Hydrology and Water Quality: "the CCSD has provided insufficient baseline information to determine the project's full effects on the groundwater basin and the watershed's hydrologic regime."

According to Coastal staff the project does not appear to be consistent with LCP Coastal Watershed Policy 1 preservation of groundwater basins, Policy 2 to preserve water levels and surface flows, and Policy 3 placing development in flood hazard outside an urban reserve line, Wetland Policy 16 to cite development away from wetlands, Coastal Streams Policy 21 not compatible with streams' habitat values and does not appear to be consistent with the North Coast Area Plan.

"the proposed project's expected significant adverse effects on coastal resources will likely require that any final project approved through the regular CDP process will need substantial design and operational modifications in order to allow consistency with relevant policies. Given the IS/MND's inadequate review, the likelihood that the project would result in extensive adverse impacts, and the need to evaluate less environmentally damaging alternatives, we strongly recommend that the CCSD prepare a subsequent CEQA document that fully addresses our concerns and comments."

CA Dept. of Parks and Rec. 7-22-14 letter to CSD
"Because the project acknowledges impacts including depleted lagoon levels that require recharging, as well as impairment of the fresh ground water in the aquifer, there will be direct impacts to resources that DPR as well as CA Department of Fish and Wildlife the US Fish and Wildlife Service and the National Marine Fisheries Services are responsible for protecting".

"These potential impacts should be considered direct impacts to the wetlands, not indirect. The language used throughout the document demonstrates a strategy to consider 'direct impacts' to be for facilities only. This is not appropriate as water discharge and water pumping are direct impacts to the creek, lagoon and other sensitive habitats within a state natural preserve and a public recreation area".

"The proposed project will have notable impacts to recreational visitors of the San Simeon campground and trails". "Due to the unknown constituents and effects of the aerosolized bring discharge and the proximity to the campground, residences, and trails, it would appear that the potential health impacts of airborne spray should be analyzed and a consultation with the EPA should be considered".

"The project is in a sensitive archeological area. Site SLO 187 is on the national register and the Pa-Nu archeological site is a State Cultural Preserve… Due to the federal nexus and cultural sensitivity of the area, a Section 106 report and analysis should be considered".

US Dept. of the Interior Fish and Wildlife -7-22-14 letter to CSD.
Is responsible for administering the Endangered Species Act of 1973. Take means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct.

"As currently described, the proposed emergency water project could result in take of the tidewater goby and CA red legged frog." "given the nature of adaptive management, this project may adversely affect the tidewater goby or CA red legged frog before anything can be done to

modify or county the action causing an adverse effect. In addition the project's timeline does not allow sufficient time to gather the necessary data to develop an adequate baseline".

"For the reasons described above, reduction in flows may constitute 'take' as defined in Section 3(19 of the Endangered Species Act and any take of listed species that would result from such activities would require either (a) an exemption from the prohibitions against take in section 9 of the Act pursuant to section 7 or (b) take authorization pursuant to section 10(a)(1)(B) of the Act."

and finally your agency suggests:

Central Coast Regional Water Quality Control Board 7-22-14 and 7-11-14 letter to CSD Water Board staff and their consultants continue to work on addressing the various issues including regulatory considerations and waste discharge permits that are needed but not yet obtained, additional need for for environmental review, permitting and assessment for potential water quality impacts, no contingency for pond failure and the *"document does not provide sufficient technical details necessary to provide comments on the pond design." "Water Board staff still needs to evaluate whether the contents of the brine pond will adversely affect wildlife."*

Cambria is not in compliance with the "Clean Water Act 303(d) listing for San Simeon Creek– According to the Statewide 2010 Integrated Report (Clean Water Act Section 303(d) list/305(b) Report), San Simeon Creek is listed for nitrate, low dissolved oxygen, chloride, and sodium. As a result, Water Board staff is developing a total maximum daily load analysis/report (TMDL) that will establish water quality targets. The IS/MND should address the listed pollutants and how a future TMDL will affect the project."

Questions and unresolved issues:

1. What is status of Regional Water Board request for "additional need for for environmental review, permitting and assessment for potential water quality impacts"?
2. What analysis has been done on the adverse effects of the chemical waste reservoir on wildlife?
3. How will the Regional Water Board's TMDL report affect this action as the report is not yet publicly released?
4. What is the contingency for chemical waste reservoir failure?
5. What are the effects of brine discharges and chemical waste storage reservoirs at the confluence of two creeks that contain endangered species?
6. How much water will the project actually produce and at what cost?
7. How much water will have to be released back in to San Simeon Creek?
8. What are the effects of reinjecting chemically treated water into this sensitive location?
9. "The water quality measured in source well 9P7, supplying the AWTP, is high quality before treatment, already complying with every drinking water MCL and secondary MCL. Why is the State or Regional board allowing this well to be polluted with effluent?
10. Why is the State or Regional board allowing salt water intrusion to be induced into a "high quality, drinking water well?"
11. The Cambria CSD is proposing to complete enough tasks by August of 2014 to provide safe and reliable drinking water for the community of Cambria by October 1, 2014. The emergency permit is not appropriate for this project as timelines for produced water have been moved into the 2014-15 rainfall season. No drinking water from this project is expected to be available until 2015. Goals will not be met.
12. Fast Tracking of permits, avoiding CEQA or NEPA review is not justifiable at this location.

13. The CSD will not be able to complete the necessary studies and all regulatory requirements within the 180 day timeframe mandated by the Central Coast Water Board November 2014.
14. On June 11, 2014 the Central Coast Water Board warned that the CSD had not started the process for obtaining permits from the CA Department of Fish and Wildlife, the US Fish and Wildlife, and the California Dept. of Public Health. What is the status of these permits?
15. In Title 22 report, Photograph 8 states: "*Facing east. A second alternative for disposing of unusable brine left over from the water treatment is to send it via an existing pipeline to be discharged into the ocean."* An Ocean Outfall must not be considered.
16. This location contains a number of threatened and endangered species. San Simeon Creek empties into the CA State Parks Natural Preserve, the Monterey Bay National Marine Sanctuary, the CA Sea Otter Refuge, and the Cambria State Marine Park and is National Marine Fisheries CORE 1 Steelhead Habitat.
17. Section 404 or 401 of the US Environmental Protection Act required yet not begun.
18. Section 7 of the CA Endangered Species Act required yet not begun.

Without a thorough public review and analysis of the above critical agency questions as they relate to the Public Trust Doctrine and other State and Federal laws, it is unclear as to how the State or Regional Water Board can sufficiently weigh or describe or mitigate the effects of this emergency project, much less the long term project that is being constructed without environmental review.

Instream Flow Studies and Habitat Conservation Plans for both San Simeon and Santa Rosa Creeks have been repeatedly requested by agencies and Greenspace since at least 1999. Coastal resources including our creeks that contain threatened and endangered species must not bear the burden of human caused impacts, groundwater overdraft, naturally occurring drought, climate change impacts due to man made causes, unmitigated growth, lack of mandatory guidelines, and insufficient oversight of regulatory agencies. It is past time the creek assessments are mandated by agencies and SLO County before any project is even considered, much less constructed.

Both Santa Rosa and San Simeon Creeks contain special status endangered and threatened species. We need the highest levels of oversight of these critically important areas or the wildlife may never recover from temporary droughts such as the one we're experiencing this year. The actions of the District in their pumping regimen at both creeks is of major concern to our organization. Many of the negative impacts from this project are preventable with alternatives, appropriate oversight and public review. We urge the board to require the district to complete their Coastal Development Permit process as soon as possible so that no further delays will occur.

Regards,

Mary Webb, VP
Greenspace-the Cambria Land Trust

Attachments
cc: CSD Board of Directors and Gen. Mgr, Distr. 2. Rep. SLO County, CA Coastal, CA State Parks, US Fish and Wildlife, CA Fish and Wildlife, National Marine Fisheries, RWQCB and others.

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

CALIFORNIA COASTAL COMMISSION

45 FREMONT, SUITE 2000
SAN FRANCISCO, CA 94105- 2219
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July 22, 2014

Robert Gresens, P.E., District Engineer
Cambria Community Services District
1316 Tamson Drive, Suite 201
Cambria, CA 93428

VIA EMAIL: bgresens@cambriacsd.org

RE: Comments on June 2014 Public Review Draft of "Cambria Emergency Water Supply Project" Initial Study/Mitigated Negative Declaration ("IS/MND") – State Clearinghouse Number #2014061073.

Dear Mr. Gresens:

This letter provides Coastal Commission staff's comments and concerns regarding the above-referenced document and project. We understand the severity of Cambria's current water shortage and the need for the Cambria Community Services District ("CCSD") to respond to that shortage. We have actively worked with you on ways to address the current shortage in a manner that is consistent with Coastal Act and the County's Local Coastal Program ("LCP") policies. However, as we have discussed with you previously, the proposed project raises significant concerns that result in inadequate protection of nearby coastal resources and potential nonconformity to the LCP and the Coastal Act. Accordingly, when the CCSD applied earlier this year to the County of San Luis Obispo for an emergency coastal development permit ("CDP") to address the current severe drought situation, we advised you to use that emergency permit process to implement a short-term and immediate solution rather than construct long-term major infrastructure that raises significant LCP and Coastal Act policy concerns. Additional data, evaluation, and discussion among all the resource agencies with authority over the project is required before a long-term project is designed, constructed, and operated. Nevertheless, in June 2014, the CCSD applied for, and the County issued, an emergency CDP for the project. That emergency permit requires the CCSD to obtain a follow-up regular CDP to authorize the proposed development.[1] The CCSD has submitted a partial application for that required follow-up CDP and has prepared this Draft IS/MND to fulfill the California Environmental Quality Act ("CEQA") requirements for the regular CDP application for the proposed project.

[1] The LCP's Section 23.03.045 (Emergency Permits) allows the County to grant an emergency permit when an emergency exists that requires action more quickly than allowed by the procedures for regular permits. It also requires an applicant to submit a follow-up application for a regular CDP permit and to obtain that permit in a timely manner.

As discussed in more detail below, the Draft IS/MND does not adequately address a myriad of LCP and Coastal Act policy concerns, as it insufficiently identifies the project's expected adverse effects and incorrectly and incompletely applies the policies and requirements relevant to the proposed project and the affected coastal resources. We therefore believe the project needs substantial design and operational modifications in order to be found consistent with the LCP and Coastal Act. We also recommend convening a meeting with all involved resource agencies to discuss how the CCSD can best move forward to address its water supply needs in a manner that is consistent with the relevant requirements. Our comments are detailed below, starting with several general concerns followed by comments on specific sections of the IS/MND.

GENERAL COMMENTS

1) Project's adverse effects on coastal wetlands, streams, and sensitive habitat areas.

The project is likely to adversely affect coastal wetlands, streams, and sensitive habitat areas in a manner not consistent with the LCP or the Coastal Act. The IS/MND provides an incomplete and inadequate analysis of the proposed project's wetland impacts. The document describes potential impacts only as those that would have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act through direct removal, filling, hydrological interruption, or other means. The document does not identify or evaluate potential impacts to LCP- and Coastal Commission-jurisdictional wetlands, which are defined differently than the federally-defined wetlands noted above.[2] From the limited data provided in the IS/MND, there appear to be LCP- and Coastal Commission-jurisdictional wetlands both within and near the proposed project site that would be directly and indirectly affected by the project. The project may result in direct fill of these waterbodies, dewater them, or otherwise reduce and interrupt their hydrologic regime. We recommend the subsequent CEQA document fully describe all wetlands and coastal waters on and near the site that may be affected by the project and that it evaluate the project's likely effects on those wetlands.

2) Project's adverse effects on designated critical habitat and associated listed species.

The project would be located within designated critical habitat for four listed species. It is likely to diminish the function and value of that habitat and is likely to result in significant adverse effects and "take" of those species. The IS/MND states that the project would be located within designated critical habitat for the South-Central California Coast steelhead, tidewater goby, California red-legged frog, and the western snowy plover (see pages 4.4-12-13 of the IS/MND). Each of these species depends on the coastal waters that would be adversely affected due to project operations. These include San Simeon Creek, Van Gordon Creek, and their associated wetlands and estuary. The project's proposed annual extraction of about 320 acre-feet (or over

[2] The Coastal Act and LCP define "wetland" as meaning "lands within the coastal zone which may be covered periodically or permanently with shallow water and include saltwater marshes, freshwater marshes, open or closed brackish water marshes, swamps, mudflats, and fens." Determining Commission- and LCP-jurisdictional wetlands involves identifying evidence of <u>any</u> of three parameters – hydric soils, hydrology, or hydrophytic vegetation – rather than the federal requirement that <u>all</u> three parameters be present.

100 million gallons) of groundwater from the lower San Simeon watershed represents a substantial proportion of water available to this habitat, and its withdrawal would occur during dry periods when the habitat and species are most subject to loss or diminishment.

The CCSD's proposed approach is also inconsistent with the LCP provision that the CCSD is to prepare an instream flow study prior to proposing any major water supply project that might affect San Simeon Creek streamflows (see the LCP's Cambria Programs 11a, page 3-27). As Commission staff has requested since at least 2001, the CCSD must pursue these types of in-flow creek studies prior to the approval of any new public works project.

The IS/MND does not fully or accurately assess the project's adverse effects on these waterbodies or critical habitat areas due to water table drawdown. It states, in fact, that there is insufficient information to determine the extent of the project's effects or the effectiveness of the proposed mitigation.[3] Nonetheless, from the limited information provided, the project's proposed groundwater extraction and drawdown effects are likely to cause "take" of these species. Importantly, this "take" is also likely during the upcoming tracer test, when the CCSD plans to extract over 100 acre-feet of water (more than 30 million gallons) from the lower watershed during the driest time of the year.

Regarding steelhead, for example, the IS/MND notes that the project is likely to adversely affect steelhead. However, it does not acknowledge or apply the provisions of the December 2013 *South-Central California Steelhead Recovery Plan*, (the "Recovery Plan") published by the National Marine Fisheries Service. The Recovery Plan identifies threats to steelhead recovery in the San Simeon Creek watershed and identifies the San Simeon Creek watershed as a key component of species recovery. Key components of the Recovery Plan applicable to the project include:

- The San Simeon Creek steelhead population is identified as "Core 1," which is the highest priority area for recovery.[4]
- Groundwater extraction in the San Simeon watershed is identified as a "Very High Threat,"[5] and management of groundwater extraction is identified as the top-rated action needed for recovery.[6]

[3] See for example, the document's *Appendix B – Biological Resources Assessment*, which states, at page 75, "Without further hydrologic study, it is unknown what effect the removal and subsequent return of this water may have on the groundwater supply and subsequently on surface water. Because the lagoon injection wells are located downstream of Van Gordon Creek, it is unclear whether 100 gpm of water injected back into the creek and lagoon system would be sufficient to retain or improve upon the biological productivity and quality of this creek, and it is possible that a larger volume of water may be required to maintain high-quality stream habitat."

[4] See, for example, the *Recovery Plan's* Table 7-1, "Core 1, 2, and 3 *O. mykiss* populations within the South-Central California Coast Steelhead Recovery Planning Area."

[5] See, for example, the *Recovery Plan's* Table 12-2, "Threat source rankings in the San Luis Obispo Terrace BPG."

[6] See, for example, the *Recovery Plan's* Table 12-8, South-Central California Steelhead DPS Recovery Action Table for the San Simeon Creek Watershed.

- "Critical recovery actions" for San Simeon Creek include "develop and implement operating criteria to ensure the pattern and magnitude of groundwater extractions and water releases… provide the essential habitat functions to support the life history and habitat requirements of adult and juvenile steelhead…," and "protect and where necessary, restore estuarine rearing habitat… and upstream freshwater spawning and rearing habitats."[7]

The IS/MND states that the CCSD will develop an Adaptive Management Program (AMP) to address the project's impacts; however, the document provides no detailed description of what this AMP might include, its expected performance standards, the baseline data needed to develop it, or other critical components of a mitigation measure meant to avoid "take" of listed species. [See also the comments below on Section 4.4 – Biological Resources.]

The project appears to be subject to consultation with federal wildlife agencies, due to its above-referenced adverse effects on federally-listed species and because project development was funded by the U.S. Army Corps of Engineers. The IS/MND incorrectly states (at page 4.4-12) that consultation is required only when a project is issued federal permits.[8] However, pursuant to Section 7 of the federal Endangered Species Act, consultation is required for projects involving federal ownership, oversight, or funding. The proposed project is the product of the November 2013 *Cambria Water Supply Alternatives Engineering Technical Memorandum*, which was used to develop this and other water supply project alternatives and was jointly funded and published through a partnership and funding agreement between the CCSD and the Corps of Engineers.[9] The CCSD may also be subject to other components of the federal Endangered Species Act, such as obtaining an "incidental take" permit or developing a habitat conservation plan. We recommend the subsequent CEQA document include documentation of the CCSD's consultation with the National Marine Fisheries Service and the U.S. Fish and Wildlife Service, and include any evaluations or recommendations provided by those agencies.

3) Project's adverse effects on coastal public recreation.

The proposed project would be adjacent to a State Park campground that provides public recreation and access to the nearby shoreline. Project components closest to the campground include an evaporation pond and mechanical evaporators that would create noise and produce harmful and possibly toxic air quality effects. [See comments below on Sections 2.5.3 and 4.4.]

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[7] See, for example, the *Recovery Plan's* Table 7-2, "Critical recovery actions for Core 1 *O. mykiss* populations within the South-Central California Coast Steelhead DPS."

[8] The need for federal consultation is further supported by statements made by the CCSD at its July 14 public meeting that the project relies on the work conducted pursuant to the CCSD's funding agreement with the Corps.

[9] See, also, for example, the description of project development in Section 1.2 of CDM Smith, *Cambria Emergency Water Supply – Project Description*, June 2014, and the Corps' September 24, 2013 letter to the CCSD that describes ongoing project funding and scheduling through 2015.

ADDITIONAL COMMENTS ON SPECIFIC SECTIONS OF THE IS/MND

Several of our comments below illustrate specific examples of the concerns identified above.

4) **Section 2.2.3, Project Purpose:** The described project purpose is unclear and inconsistent and does not include support for its contentions. For example, the IS/MND states that the project is meant to provide 250 acre-feet of water supply, though it provides no basis for this particular water volume and does not describe or consider whether lesser volumes would be adequate under various conditions, such as shorter drought periods or seasons where the aquifer is fully or partially refilled through precipitation. The document also states both that the facility would be used only for periods of six months or less and that it could be used for longer periods. Although the document acknowledges that the CCSD has not yet developed the data needed to identify the effects of withdrawing more than 400 gallons per minute ("gpm") of groundwater on nearby coastal waterbodies, it states that those adverse effects would be mitigated by returning from 100 to 150 gpm of partially treated water to those waterbodies. Without adequate studies, returning only a quarter of the removed water to the system cannot be determined to provide adequate mitigation.

5) **Section 2.5, Project Characteristics:** The IS/MND states that the project would pump product water either into Lagoon Injection Wells feeding the groundwater of San Simeon Creek or into a direct discharge to Van Gordon Creek. The document does not describe how these two proposed discharge methods were selected or what their different effects might be – for example, there is no evaluation of how the well depth was selected or how discharging the water into wells might result in different effects than discharging directly to the surface waters.

6) **Section 2.5.3, Evaporation Pond:** The project would discharge brine into an existing percolation pond at the site in which the CCSD would install a liner. The IS/MND states that the area's estimated evaporation rate does not allow for adequate natural evaporation from that pond and that the District therefore proposes to install five spray evaporators to accelerate evaporation of the project's brine discharge. It also states that to control drift, the evaporators would be used only when wind direction, wind velocity, temperature, and humidity are within "preset ranges." The document does not identify the area's evaporation rate or the times when the above-referenced weather characteristics are likely to allow operation of the spray evaporators without causing drift. [See also comments below on Section 4.3 – Air Quality.]

7) **Section 2.5.6, Lagoon Injection Wells:** The document states that "to maintain and improve" conditions in San Simeon Lagoon, the project would either use three injection wells to discharge a total of 100 gpm at depths of between 30 to 40 feet below the ground surface (bgs) or would discharge that amount directly to Van Gordon Creek. The document provides no analysis about why this particular amount would "maintain and improve" conditions, why either approach would apparently provide the same level of beneficial conditions, why pumping at 30 to 40 feet bgs was selected, whether the subsurface pumping at that rate would be consistent with, or mimic, natural recharge of

the creek, etc. In fact, the document notes elsewhere (see Appendix D – Groundwater Modeling Report) that the District has not yet completed modeling needed to determine the project's effects and the necessary mitigation. [See additional comments below in Section 4.4 – Biological Resources.]

8) **Section 2.7, Project Approvals:** As noted previously, the project appears to be subject to consultation with federal wildlife agencies. We recommend these agencies be added to the subsequent CEQA document.

9) **Section 4.2, Agriculture and Forestry Resources:** The IS/MND confirms that the proposed project site is designated for Agricultural land use and classified as having both Prime and Non-Prime Agricultural soils. The document states that public utility uses are allowed on Agricultural lands; however, it does not acknowledge other requirements of LCP provisions regarding use of these lands. For example, while the document partially cites Coastal Zone Land Use Ordinance ("CZLUO") Section 23.04.050 (regarding non-Agricultural uses on Agricultural lands), it does not fully evaluate the proposed project's conformity to other applicable CZLUO provisions. These include a requirement, for example, in Section 23.080.288 that public utilities not be allowed in areas with prime agricultural soils unless there are no other feasible on- or off-site locations. The IS/MND does not identify where on the project site the Prime Agricultural soils are located, the proposed project's footprint in relation to those soils, or whether there are feasible alternative locations. In addition, CZLUO Section 23.04.050(b)(2) provides that if continued agricultural use is not feasible on an Agricultural-designated site, priority is to be given to commercial recreation and low intensity visitor-serving uses. We recommend the subsequent CEQA document provide the necessary data and evaluation of these and other applicable policies.

10) **Section 4.3, Environmental Impacts, Air Quality:** The IS/MND concludes that the project would not cause significant air quality-related impacts, yet provides no analysis of the effects on spraying almost 100 tons of brine per day[10] into an area within a few dozen feet of nearby wetlands and sensitive habitats and within about 300 feet of a campground. The brine's constituents would include ammonium, barium, strontium, chlorine, and others, with several at levels that may be considered harmful or toxic when airborne.[11]

    The document states that the spray evaporators would be operated only when conditions allow, but does not describe what conditions would allow, or disallow, use of the evaporators. It also does not identify what effects would result if, due to the conditions, the CCSD was not able to operate the evaporators for a period of time – for example, if conditions did not allow the evaporators to operate for a week, a month, etc.

[10] See CDM Smith, Cambria Emergency Water Supply – Project Description, June 2014, Table 2-7.

[11] See expected concentrate levels provided in Table 7-1 of CDM Smith, *Draft Cambria Emergency Water Supply Project – Title 22 Engineering Report*, July 2014. Several of the identified levels would exceed human health effects levels for airborne contaminants.

We recommend the subsequent CEQA document be modified to include the conditions under which the CCSD proposes to operate the spray evaporators, the technical and operational basis of those proposed conditions, and the time those conditions are (and aren't) expected to be present at the site, based on historical weather records. The modified document should also describe what effects would result if the evaporators could not operate for the expected periods of time and how the CCSD would address those effects – for example, the period of non-operation that would result in overflow of the brine reservoir, and what measures the CCSD would take to avoid that overflow. Given the likely adverse effects associated with the proposed use of the evaporation pond and mechanical evaporators, we recommend the subsequent CEQA document also fully describe feasible alternatives that would avoid or reduce these effects.

11) **Section 4.4, Environmental Impacts – Biological Resources:** We also have a number of concerns with the IS/MND's evaluation of the project's biological resource impacts. The proposed project also appears to be inconsistent with relevant LCP policies. For example, the IS/MND states (at page 4.4-25) that the project would conform to the LCP's requirements for wetland setbacks, but as noted above, the document has not fully identified wetlands that are known or likely to be within the project footprint. As another example, with regards to steelhead, LCP Section 23.07.170e(3) requires that subsurface water diversions not be allowed if they would cause significant adverse effects on steelhead. The document states that adaptive management would be used to avoid any such effects, but acknowledges that there is uncertainty about what effects would result from the CCSD extracting 300 gpm from the groundwater basin immediately adjacent to, and connected with, the estuary these steelhead rely on.

The document relies heavily on a proposed Adaptive Management Program to address the many areas of uncertainty about the project's potential adverse impacts. This proposed approach is provided in Condition BIO-6, which states:

> *The Project applicant shall develop and implement an adaptive management program (AMP) for post construction operations. This plan shall be incorporated indefinitely until the Project facilities are no longer in use or until deemed no longer necessary by applicable regulatory agencies. The AMP is intended to monitor and protect the lagoon and riparian habitats adjacent to the Project site and, by extension, protect the species that inhabit it. The primary goal of the AMP would be to monitor the response of the lagoon and riparian habitats to the Project and, based on any noted adverse changes in these habitats, to adjust operations so that the amount of treated water that is injected or discharged back into the system, is either increased or decreased to restore affected habitat features. This may require a combination of any of the following:*
>
> - *Monthly stream surveys during the period that the Project is actively drawing groundwater (currently expected to be May through October). The surveys would document the upstream extent of inundation in each water body, as well as water depth at predetermined locations to measure changes in water levels;*
> - *Surveys for tidewater goby, steelhead, CRLF, western pond turtle, and/or two-striped garter snake to measure population levels over time; and*

- *Monitoring of riparian vegetation in the water bodies and in their upland extents.*

For several reasons, this condition is wholly insufficient to provide the necessary level of protection or to ensure conformity with LCP or Coastal Act requirements. Successful implementation of the condition would require the CCSD to first have adequate baseline data on which the adaptive management can be based. The data should describe the extent and function of existing habitat types and provide understanding of the existing hydrologic functions in these habitats. However, as noted previously (see footnote 3 of this letter), the IS/MND states that the CCSD has very little understanding of the existing conditions, how its proposed project may affect those conditions, and how to identify changes to those conditions. Similarly, the condition proposes to survey population levels of several species, but the IS/MND provides no baseline data on existing numbers and does not describe how to measure a change in those numbers. Importantly, because these are species are already listed as endangered or threatened, any loss due to the project may be considered a significant adverse impact.

Other proposed conditions would also result in inadequate mitigation. For example, Condition BIO-7 states:

> *The Project applicant shall delay the annual period of groundwater pumping to the greatest extent possible, preferably after June, in order to maximize the amount of time for steelhead to migrate up and down San Simeon Creek.*

The phrase, "the greatest extent possible," is vague and unenforceable. Additionally, this condition contradicts the prior condition, which states that the CCSD intends to start pumping in May, and contradicts statements elsewhere in the IS/MND stating that the project could run for longer periods.

As another example, Condition BIO-15 states:

> *The Project Applicant shall consult with the Corps, CDFW, and Regional Board regarding potential impacts and required mitigation once the final Project design is available. If impacts are anticipated to occur to instream and riparian habitats, wetland permits may be required from these agencies.*

This condition does not meet the requirements of CEQA. The CCSD must identify project impacts and necessary mitigation during, not after, CEQA review.

12) **Section 4.Section 4.6 – Geology and Soils:** This section of the IS/MND states that the project and site geologic hazards would involve either "no impacts" or "less than significant impacts," and proposes no mitigation. However, it also notes that the project site is within a County-designated "Geologic Study Area," which indicates sites with increased geologic hazards and requires the applicant to prepare a "Geologic and Soils Report." The County has also identified the site has having moderate potential for liquefaction, which could require excavation or other measures during project construction – e.g., placement of pilings, construction of a mat foundation, increased

grading, etc. – that could increase the project's adverse effects beyond what is analyzed in the IS/MND.[12] We recommend the subsequent CEQA document more fully evaluate these potential effects and the mitigation measures the CCSD will need to incorporate into the project to avoid these hazards and allow conformity to the LCP.

13) **Section 4.9 – Hydrology and Water Quality:** The document only partially describes the project's effects on local hydrology and water quality. As noted elsewhere in this letter, the CCSD has provided insufficient baseline information to determine the project's full effects on the groundwater basin and the watershed's hydrologic regime. The project therefore does not appear to be consistent with several LCP requirements, including LCP Coastal Watershed Policy 1, which requires preservation of groundwater basins and allows no significant adverse biological impacts, and LCP Coastal Watersheds Policy 2, which requires that groundwater levels and surface flows be maintained to ensure coastal waters and biological resources are protected. Further, much of the site is mapped by the County as a Flood Hazard area and is subject to tsunami runup.[13] Some project components therefore appear to be inconsistent with LCP requirements related to placing development in flood and hazard areas – for example, the LCP's Hazards Policy 3 prohibits this type of development in Flood Hazard areas located outside of an urban reserve line. We recommend the subsequent CEQA document fully evaluate the proposed project with these applicable LCP provisions.

14) **Section 4.10 – Land Use and Planning:** This section of the document references provisions and requirements from several planning documents that are applicable to the proposed project. Although the IS/MND contends the project is consistent with these provisions, those contentions are often not supported. Examples include:

- The County's North Coast Area Plan, which includes provisions and Combining Designations applicable to the proposed project. The document notes that the project site is within a *Geologic Study Area* (*GSA*) and *Flood Hazard* (*FH*) designation, and contains Sensitive Resource Areas (*SRAs*) and Environmentally Sensitive Habitat – Coastal Creeks (*ESH-CC*). It acknowledges that "maintenance of the creeks is essential to protect many coastal resources," and that the creeks "support a number of declining species," and refers to previous sections of the document – i.e., *Section 4.4 – Biological Resources* and *Section 4.9 – Hydrology and Water Quality* – however, as noted above, those sections do not adequately address conformity to the North Coast Area Plan provisions.

[12] The document states that the site has "low" liquefaction potential; however, the County's PermitView mapping system identifies most of the site as having "moderate" potential.

[13] See, for example, the CalEMA Tsunami Inundation Map for San Luis Obispo County: http://www.conservation.ca.gov/cgs/geologic_hazards/Tsunami/Inundation_Maps/SanLuisObispo/Documents/Tsunami_Inundation_Cambria_Quad_SLO.pdf

- The LCP's Wetland Policy 16, which requires that development be sited away from wetlands. As noted above, the IS/MND does not fully identify the wetlands that would be affected by the project and its operations.

- The LCP's Coastal Streams Policy 21, which requires development be compatible with continuance of the streams' habitat values. As noted above, the CCSD has provided insufficient information to support its contention that the project conforms to this policy, and in fact, the limited information provided shows that the project would result in substantial adverse impacts to the habitat.

- CZLUO's Section 23.08.288 requires that public utility facilities proposed for areas designated with prime agricultural soils, Sensitive Resource Areas, Environmentally Sensitive Habitats, or Hazard Areas must show that there are no on- or off-site feasible alternative locations, and must prepare a feasibility study that includes a constraints analysis and an analysis of alternative locations. The IS/MND does not provide the required information.

15) **Section 4.18 – Mandatory Findings of Significance:** Section 4.18a acknowledges that the project "has the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal." It also contends that these impacts would be less than significant with the proposed mitigation. However, as described elsewhere in these comments, this contention is not supported by data, and in fact, appears to be contradicted by known information about the San Simeon watershed, as described, for example, in the above-referenced *Recovery Plan*. For example, the timing and location of the project's proposed groundwater extraction is almost certain to "reduce the number or restrict the range" of endangered species, and the document provides insufficient data to support its contention that the proposed mitigation would reduce this effect to being less than significant. As described above, the CCSD should consider any loss of endangered species to be significant.

16) **Section 7.6 – Project Mitigation Measures:** The IS/MND's proposed mitigation measures inadequately address the project's known and likely impacts – for example, the document includes no air quality mitigation measures needed to avoid or reduce the drift of harmful or toxic materials from the project's mechanized evaporators. As noted above, these are likely to cause adverse air quality effects to nearby sensitive habitats and public recreation areas. In addition, several of the measures are vague, unenforceable, or inconsistent with LCP requirements – for example, rather than requiring development be kept a specific distance from sensitive habitat, Condition AES-1 would require that staging areas be "as far as practicable" from sensitive receptors.[14] This condition would also require "appropriate routine maintenance" rather than specify particular timing.

[14] Condition AES-1 states:
Prior to Grading Permit issuance, the CCSD shall confirm that the plans and specifications stipulate that, Project construction shall implement standard practices to minimize potential adverse impacts to the site's visual character, including the following:

CONCLUSION

Thank you for your attention to these comments. As noted above, the proposed project's expected significant adverse effects on coastal resources will likely require that any final project approved through the regular CDP process will need substantial design and operational modifications in order to allow consistency with relevant policies. Given the IS/MND's inadequate review, the likelihood that the project would result in extensive adverse impacts, and the need to evaluate less environmentally damaging alternatives, we strongly recommend that the CCSD prepare a subsequent CEQA document that fully addresses our concerns and comments. We also recommend the CCSD participate in an interagency meeting to help address the many concerns about the project. Please contact Tom Luster of my staff at 415-904-5248 if you have any questions or if you would like our assistance in setting up the collaborative interagency meeting.

Sincerely,

Tom Luster for

Alison Dettmer
Deputy Director

cc: CCSD Board of Directors
Bill Robeson – San Luis Obispo County Planning Division
Doug Barker, State Parks – San Luis Coast District
Vince Cicero, State Parks – San Luis Coast District
Jonathan Nelson, California Department of Fish & Wildlife
Kirstina Berry, U.S. Fish & Wildlife Service
Anthony Spina, National Marine Fisheries Service

- *Construction staging areas shall be located as far as practicable from sensitive receptors; and*
- *Construction areas shall receive appropriate routine maintenance to minimize unnecessary debris piles.*

Questions and Concerns re: proposed Cambria Water Supply Project – Compilation of Agency Comments – August 2014

GENERAL / ADMINISTRATIVE

1) Status/Schedule: What is the status of, and the District's schedule for:

- Completing CEQA?
- Completing its follow-up Coastal Development Permit application to the County?
- Completing the instream flow study needed for LCP conformity?
- Conducting Section 7 consultation with NMFS/USFWS for steelhead, tidewater goby, California red-legged frog, and Western snowy plover?

PROJECT DESCRIPTION

Please provide a complete description of the proposed project, including clarification of the following:

2) Property/Ownership: Has the District resolved the parcel boundary issue with State Parks? If not, what is the status of that issue and is the District proposing any changes to the project location or layout?

3) Project water volumes and flow rates: Please describe the basis for the project's proposed water production, mitigation, and discharge volumes/flow rates – e.g., what was the basis of the proposed 250 acre-foot ("af") production rate, the proposed mitigation flow rate, etc. Please also clarify which of the several different project descriptions accurately describe the currently proposed project and clarify the discrepancies among them. Examples include:

- Production rate: The IS/MND states that the facility would extract 400 gallons per minute ("gpm") to produce 250 acre-feet ("af") of potable water over a six-month period and to produce mitigation flows of 100 to 150 gpm during that period. However, a 400 gpm extraction rate over six months would produce approximately 318 af, and returning 100-150 gpm as mitigation flows over that period would reduce the total extracted water available for production to 198-238 af. With the facility's expected reverse osmosis treatment production rate of 40%, this would provide no more than 80-95 af of potable water. Alternatively, the District's July 14, 2014 PowerPoint presentation shows an extraction rate of 690 gpm (a 60% increase in the rate described in the IS/MND), but shows no change in the proposed 100 gpm mitigation flow. Please clarify the currently proposed extraction rate and production rate. Please also describe how the District determined that the same 100 gpm mitigation flow would be adequate to address the effects of either a 400 gpm or 690 gpm extraction rate (see also the hydrologic/hydrogeologic comments below).

- Discharge rate: The IS/MND states that the facility's expected discharge rate to the evaporation ponds is 42 gpm, or 33 af. The Regional Board's July 22, 2014 comment letter refers to the District's expected discharge rate as 65,000 to 72,000 gallons per day, or 45-50 gpm, or about 35-40 af. However, the description above suggests the discharge would be about three to four times that rate. Please clarify the expected discharge rate and the basis for that expected rate.

4) Relationship of proposed project water volumes and flow rates to San Simeon Creek flow rates, water rights, status of adjudication, and watershed plan: San Simeon Creek's base flow is approximately 1200 acre-feet per year (per San Luis Obispo County). The proposed project would extract from 26-45% of this volume from the watershed during the dry season, but would return only 6-10% through the proposed mitigation flows. At a 400 gpm extraction rate, the District would extract 318 af during the dry season, and at a 600 gpm extraction rate, the District would extract 477 af during the dry season.

We understand the District has not yet completed the required instream flow study for San Simeon Creek. However, using currently available information, please describe the proposed project's water balance as it relates to known information about stream flow, as well as the District's water rights and its other pumping or extraction in the San Simeon Creek watershed. We understand these rights consist of:

- Maximum rate of diversion: 5.0 af/day, or 2.5 cfs.
- Maximum annual diversion: 1,230 acre-feet.
- Maximum dry season diversion (i.e., between end of surface flows at Palmer Flats gauging station and October 31 of each year): 370 af

We also understand that in 2003, the CCSD started investigating the process of adjudicating San Simeon Creek. Please provide the status of adjudication.

5) Hydrologic/hydrogeologic data: Please identify when the District will complete the geotechnical and hydrogeologic studies needed to characterize the project area, including:

- San Simeon Creek water balance (as requested above).
- Aquifer characteristics in the lower San Simeon watershed.
- Degree and extent of connectivity between the aquifer(s) and surface waters, including the above-referenced streams, coastal wetlands, and the estuary.
- Vertical and horizontal extent of "cone of depression" or drawdown effects resulting from extraction well.

The IS/MND states that the project could result in "earlier than average seasonal drops in creek surface water" and "earlier than usual sandbar closures in San Simeon Creek lagoon," both of which would likely result in "take" of listed species. Please provide any analysis conducted to show how much earlier the District expects these adverse effects to occur, how much later into the season surface flows will be reduced, and the hydrologic scenarios used to determine these effects – e.g., assumed streamflow rates, precipitation, wave conditions, etc. Please clarify, too, which extraction rate – 400 gpm, 690 gpm, or another – was used in these analyses.

6) Proposed brine discharge method: The IS/MND describes the use of a proposed evaporation basin and mechanical evaporators (see comments below); however, we understand the District is also evaluating a potential direct discharge to coastal waters. Please clarify whether the District is considering one or both discharge options. If considering a direct discharge, please describe where it would be located and what discharge structure and method would be used.

7) Evaporation basin: The proposed project would discharge into a percolation basin where the discharge would be evaporated by natural and mechanical means. Please describe the following components of this aspect of the project:

- The area's natural evaporation rate.
- The type of liner proposed to be placed in the basin. Please also describe the substrate beneath the basin – e.g., soil type and depth, geophysical properties, etc.
- The expected effect of the liner on local hydrologic characteristics, including the loss of percolation from the basin area to the aquifer and how it will affect the local water balance.
- The methods the District will use to meet requirements regarding technical specifications, the construction quality assurance plan, and contingency plans for the basin (per the Regional Board's July 22, 2104 letter).

8) Spray Evaporators: As part of this proposed evaporation basin, the District plans to install five spray evaporators. The project description states that the evaporators would be used only when wind direction, wind velocity, temperature, and humidity are within "preset ranges." Please identify the proposed ranges. Based on local weather records, please also identify the times these ranges are expected to be present – for example, are there monthly or season periods when wind speeds and directions would allow, or disallow, operation of the evaporators?

The IS/MND concludes that the project would not cause significant air quality-related impacts; however, the District has not yet provided an analysis of the effects on spraying almost 100 tons of brine per day into an area within or near wetlands, coastal waters, and sensitive habitats and within about 300 feet of a campground. According to the District's July 2014 Draft Cambria Emergency Water Supply Project – Title 22 Engineering Report, the brine would contain ammonium, barium, strontium, chlorine, and other contaminants, with several at levels that may be considered harmful or toxic when airborne. Please describe any analyses the District has conducted, or plans to conduct, regarding the effects this brine may cause on nearby habitats, species, coastal waters, and recreational users. Please also describe any interaction the District has had with the local Air Quality Management District regarding these issues.

9) Chemical storage and use: We received a copy of an August 8, 2014 letter from Peter Beede to the District Engineer that described the types and amounts of chemicals expected to be used and stored at the project site. These include:

- Sodium hypochlorite – approx. 1500 gallons
- Aqueous ammonia – approx. 400 gallons
- Sulfuric acid – approx. 400 gallons
- Antiscalant – approx. 50 gallons
- Hydrogen peroxide – approx. 400 gallons
- Sodium hydroxide – approx. 750 gallons
- Calcium chloride – approx. 750 gallons

Please confirm or clarify these types and amounts. Please also provide the spill prevention and response measures the District will implement to prevent release of these chemicals to the environment during transport or storage and to respond to any releases that could occur. The response should reference all required spill prevention/response planning documents required by the County, Regional Board, and other relevant agencies.

ENVIRONMENTAL EFFECTS – ADVERSE EFFECTS ON COASTAL WETLANDS, STREAMS, SENSITIVE HABITAT AREAS, AND ASSOCIATED SENSITIVE SPECIES:

10) Baseline data: Please identify when the District will provide the baseline data needed to identify the presence of coastal waters and sensitive habitats and to establish the project's expected effects on these areas and their associated sensitive species. Along with the hydrologic information requested above, the necessary baseline data includes:

- Wetland delineations for federal and Coastal Act wetlands, including Wetland Data Sheets for areas in and near the proposed project footprint. This should include areas the IS/MND describes as containing vegetative species considered wetland indicators – e.g., giant horse tail (*Equisetum telmateia*) – and those described in the July 22, 2014 State Parks letter as seasonal wetlands with *Deschampia*/*Danthonia/Nasella*-dominated grasslands.
- Presence/absence of state- and/or federally-listed plant and animal species, xx
- Population data (including tidewater goby and California red-legged frog, as requested in the July 22, 2104 USFWS letter).

11) Water quality: The Regional Board has identified San Simeon Creek as being 303(d)-listed for excessive amounts of nitrate, low dissolved oxygen, chloride, and sodium, and is developing a Total Maximum Daily Load ("TMDL") analysis/report that will establish water quality targets for the creek. Please identify how the proposed project will affect concentrations of these contaminants in creek waters and how it will allow conformity to surface water quality standards.

The waters and sediments of the San Simeon Creek watershed are also known to contain mercury and methymercury. Please detail any sampling and testing the District has conducted to determine whether mercury and/or methymercury are present in the proposed project's source groundwater.

12) Analysis of effects on listed or sensitive species: The project would be located within designated critical habitat for four listed species noted above and is likely to affect other sensitive species. Please describe the District's analyses of project-related impacts and the consultation that has occurred between the District and federal/state wildlife agencies.

13) Proposed "Adaptive Management Program": Please identify when the District will present its proposed Adaptive Management Program (AMP) meant to address the project's impacts. Please also identify the baseline data expected to be included in this AMP, the proposed performance standards, any proposed mitigation measures to be included, etc. Please also respond to the July 22, 2014 USFWS statement that the AMP cannot ensure protection of listed species, including any assurances the District can provide that its proposed AMP will result in no "take" of listed species.

14) Mitigation water quality characteristics: The project description states that the District will convey 100 to 150 gpm of membrane filtration-treated water to the estuary or nearby area. Prior to conveyance, this water would be treated with ammonium hydroxide and sodium hypochlorite, which is needed to protect the membrane filtration system. It is not clear from the project description whether this proposed mitigation water would also receive the chemical treatments needed for the reverse osmosis process, which includes antiscalants and sulfuric acid.

Please describe the expected characteristics of the proposed mitigation water, including its pH, turbidity level, the concentrations of chemicals and compounds expected to be present, etc., and compare these with the characteristics of the receiving waters in or near the estuary. Please also provide any analyses the District has conducted or has available describing the effects the constituents of the proposed mitigation flow water may have on sensitive species and habitat – e.g., the effects of ammonia and chlorine on steelhead or the benthic macro-inveterbrates that serve as their food source, the effects of mitigation water constituents on the California red-legged frog, etc.

The IS/MND also describes two methods the District is proposing to discharge mitigation flows into the lower San Simeon watershed – either through direct discharge to surface waters or through several wells that would inject the mitigation flows about 35-50 feet below the ground surface. We understand the District recently selected the surface discharge method. However, the IS/MND states that part of the reason for discharging through wells would be to reduce seawater intrusion into the groundwater basin. Please identify how the District would prevent seawater intrusion without using the proposed injection wells.

REQUIRED LCP CONFORMITY

The proposed project appears to be inconsistent with several provisions of the County's certified Local Coastal Program and Coastal Zone Land Use Ordinance. Please describe the District's understanding of how its proposed project is consistent with relevant policies, including the following (***Note:*** this is not a complete list of applicable policies):

- ESHA, Wetland, Coastal Stream, and Riparian Buffer policies (e.g. Policy 1, 2, 3, 7, 11, 12, 13, 16, 17, 18, 20, 21, 22, 23, 25, 26, 28)
- Coastal Watershed Policies (e.g. 1, 2, 3, 7, 11)
- Hazards (e.g. 1, 2, 3, 7)

_____

ESHA, Wetland, Coastal Stream, and Riparian Buffers:

Policy 1: Land Uses Within or Adjacent to Environmentally Sensitive Habitats. New development within or adjacent to locations of environmentally sensitive habitats (within 100 feet unless sites further removed would significantly disrupt the habitat) shall not significantly disrupt the resource. Within an existing resource, only those uses dependent on such resources shall be allowed within the area. [THIS POLICY SHALL BE IMPLEMENTED PURSUANT TO SECTIONS 23.07.170-178 OF THE COASTAL ZONE LAND USE ORDINANCE (CZLUO).]

Policy 2: Permit Requirement. As a condition of permit approval, the applicant is required to demonstrate that there will be no significant impact on sensitive habitats and that proposed development or activities will be consistent with the biological continuance of the habitat. This shall include an evaluation of the site prepared by a qualified professional which provides: a) the maximum feasible mitigation measures (where appropriate), and b) a program for monitoring and evaluating the effectiveness of mitigation measures where appropriate. [THIS POLICY SHALL BE IMPLEMENTED PURSUANT TO SECTIONS 23.07.170-178 OF THE CZLUO.]

Policy 3: Habitat Restoration. The county or Coastal Commission should require the restoration of damaged habitats as a condition of approval when feasible. Detailed wetlands restoration criteria are discussed in Policy 11. [THIS POLICY SHALL BE IMPLEMENTED PURSUANT TO SECTION 23.07.170 OF THE CZLUO.]

Policy 7: Protection of Environmentally Sensitive Habitats. Coastal wetlands are recognized as environmentally sensitive habitat areas. The natural ecological functioning and productivity of wetlands and estuaries shall be protected, preserved and where feasible, restored. [THIS POLICY SHALL BE IMPLEMENTED PURSUANT TO SECTIONS 23.07.170-178 OF THE CZLUO.]

Policy 11: Regional Water Quality Control Board "208" Program. California Regional Water Quality Control Board shall administer programs identified through the "208" nonpoint source studies to ensure protection of coastal wetlands and water quality. (The county has incorporated the Basin Plan Amendment requirements into the COASTAL ZONE Land Use Ordinance.) [THIS POLICY SHALL BE IMPLEMENTED AS A PROGRAM.]

Policy 12: State Department of Fish and Game Review. The State Department of Fish and Game shall review all applications for development in or adjacent to coastal wetlands and recommend appropriate mitigation measures where needed which should be incorporated in the project design. [THIS POLICY SHALL BE IMPLEMENTED PURSUANT TO SECTION 23.07.172 OF THE CZLUO.]

Policy 13: Diking, Dredging or Filling of Wetlands. All diking, dredging and filling activities shall conform to the provisions of Section 30233, 30411 and 30607.1 of the Coastal Act. These policies establish the appropriate uses, criteria for evaluation of a project and requirements for restoration or replacement. Allowable activities within open coastal waters, wetlands (with the exception of Morro Bay and the Santa Maria River mouth), estuaries and lakes include:
a. New or expanded port, energy, and coastal dependent industrial facilities, including commercial fishing facilities.
b. Maintenance dredging of existing, or restoring previously dredged, depths in existing navigational channels, turning basins, vessel berthing and mooring areas, and boat launching ramps.
c. In wetlands areas only, entrance channels for new or expanded boating facilities, and in a degraded wetland, identified by the Department of Fish and Game pursuant to subdivision (b) of Section 30411 for boating facilities if, in conjunction with such boating facilities, a substantial portion of the degraded wetland is restored and maintained as a biologically productive wetland; provided, however, that in no event shall the size of the wetland area used for such boating facility, including berthing space, turning basins, necessary navigational channels, and any necessary support service facilities be greater than 25 percent of the total wetland area to be restored.
d. In open coastal waters, other than wetlands, including streams, estuaries and lakes, new or expanded boating facilities.
e. Incidental public service purposes, including but not limited to, burying cables and pipes or inspection of piers and maintenance of existing intake and outfall lines.

f. Mineral extraction, including sand for restoration of beaches, except in environmentally sensitive areas.
g. Restoration purposes.
h. Nature study, aquaculture, or similar resource-dependent activities.
i. Maintenance of flood control facilities by permit.
…
Diking, dredging, and filling for these types of development in wetlands, estuaries, coastal waters and lakes shall be permitted only where there is no feasible, less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental impacts, and where consistent with the maintenance of the tidal flow and continued biological viability of the wetland habitat. The development must meet the following conditions:
a. Diking, dredging and filling shall be prohibited in breeding and nursery areas and during periods of fish migration and spawning.
b. Diking, dredging and filling shall be limited to the smallest area feasible that is necessary to accomplish the project.
c. Designs for diking, dredging and filling and excavation projects shall include protective measures such as silt curtains, and weirs to protect water quality in adjacent areas during construction by preventing the discharge of refuse, petroleum spills and unnecessary dispersal of silt materials.

Dredge spoils shall not be deposited in areas where public access or environmental habitats would be significantly or adversely affected. Dredging and spoils disposal shall be planned and carried out to avoid significant disruption to marine and wildlife habitats and water circulation. Dredge spoils suitable for beach replenishment should be transported for such purposes to appropriate beaches or into suitable longshore currents. Limitations may be necessary on the timing of the operation, the type of operations and the quality and location of the spoils site. Other mitigation measures are required under Section 30607.1. Where any dike fill development is permitted in wetlands in conformity with Chapter 3 of the Coastal Act, mitigation measures shall include, at a minimum, either acquisition of equivalent areas of equal or greater biological productivity or opening up equivalent areas to tidal action; provided however, that if no appropriate restoration site is available an in-lieu fee sufficient to provide an area of equivalent productive value or surface area shall be dedicated to an appropriate public agency or such replacement site shall be purchased before the dike or fill development may proceed. Such mitigation measures shall not be required for temporary or short-term fill or diking; provided that a bond or other evidence or financial responsibility is provided to assure that restoration will be accomplished in the shortest feasible time. [THIS POLICY SHALL BE IMPLEMENTED AS A STANDARD AND PURSUANT TO SECTION 23.07.172 OF THE CZLUO.]

Policy 16: Adjacent Development. Development adjacent to coastal wetlands shall be sited and designed to prevent significant impacts to wetlands through noise, sediment or other disturbances. Development shall be located as far away from the wetland as feasible, consistent with other habitat values on the site. [THIS POLICY SHALL BE IMPLEMENTED PURSUANT TO SECTION 23.07.172 OF THE CZLUO.]

Policy 17: Wetland Buffer. In new development, a buffer strip shall be required and maintained in natural condition along the periphery of all wetlands. This shall be a minimum of 100 feet in width measured from the upland extent of the wetland unless a more detailed requirement for a greater or lesser amount is included in the LUE or the LUO would allow for adjustment to recognize the constraints which the minimum buffer would impose upon existing subdivided lots. If a project involves substantial improvements or increased human impacts, necessitating a wide buffer area, it shall be limited to utility lines, pipelines, drainage and flood control facilities, bridges and road approaches to bridges, and roads when it can be demonstrated that: a) alternative routes are infeasible or more environmentally damaging,
and b) the adverse environmental effects are mitigated to the maximum extent feasible. Access paths and/or fences necessary to protect habitats may also be permitted.

The minimum buffer strip may be adjusted by the county if the minimum setback standard would render the parcel physically unusable for the principal permitted use. To allow a reduction in the minimum standard set-back, it must be found that the development cannot be designed to provide for the standard. When such reductions are permitted, the minimum standard shall be reduced to only the point at which the principal permitted use (development), modified as much as is practical from a design standpoint, can be accommodated. At no point shall this buffer be less than 25 feet. [THIS POLICY SHALL BE IMPLEMENTED PURSUANT TO SECTION 23.07.172 OF THE CZLUO.]

Policy 18: Wetland Buffers Less than 100 Feet. For buffers less than 100 feet as established consistent with Policy 15 (above) mitigation measures to ensure wetland protection shall be required, and shall include (where applicable) vegetative screening, landscaping with native vegetation, drainage controls and other such measures.
When the minimum buffer strip is adjusted by the county, it shall be done on a case-by-case basis only after the investigation of the following factors:
a. Soil type and stability of development site, including susceptibility to erosion.
b. Slope of land adjacent to the wetland and the ability to use natural topographic features to locate development.
c. Types and amount of vegetation and its value as wildlife habitat including: 1) the biological significance of the adjacent lands in maintaining the functional capacity of the wetland, and 2) the sensitivity of the species to disturbance.
d. Type and intensity of proposed uses.
e. Lot size and configuration, and the location of existing development. [THIS POLICY SHALL BE IMPLEMENTED PURSUANT TO SECTION 23.07.172 OF THE CZLUO.]

Policy 20: Coastal Streams and Riparian Vegetation. Coastal streams and adjoining riparian vegetation are environmentally sensitive habitat areas and the natural hydrological system and ecological function of coastal streams shall be protected and preserved. [THIS POLICY SHALL BE IMPLEMENTED AS A STANDARD AND PURSUANT TO SECTION 23.07.174 OF THE CZLUO.]

Policy 21: Development in or Adjacent to a Coastal Stream. Development adjacent to or within the watershed (that portion within the coastal zone) shall be sited and designed to prevent impacts which would significantly degrade the coastal habitat and shall be compatible with the continuance of such habitat areas. This shall include evaluation of erosion and runoff concerns. [THIS POLICY SHALL BE IMPLEMENTED AS A STANDARD AND PURSUANT TO SECTION 23.07.174 OF THE CZLUO.]

Policy 22: Fish and Game Review of Streambed Alterations. Significant streambed alterations require the issuance of a California Department of Fish and Game 1601-1603 agreement. The Department should provide guidelines on what constitutes significant streambed alterations so that the county and applicants are aware of what is considered a "significant" streambed alteration. In addition, streambed alterations may also require a permit from the U.S. Army Corp of Engineers. [THIS POLICY SHALL BE IMPLEMENTED AS A STANDARD AND PURSUANT TO SECTION 23.07.174 OF THE CZLUO.]

Policy 23: County and State Review of Coastal Stream Projects. The State Water Resources Control Board and the county shall ensure that the beneficial use of coastal stream waters is protected, for projects over which it has jurisdiction. For projects which do not fall under the review of the State Water Resources Control Board, the county (in its review of public works and stream alterations) shall ensure that the quantity and quality surface water discharge from streams and rivers shall be maintained at levels necessary to sustain the functional capacity of streams, wetland, estuaries and lakes. [THIS POLICY SHALL BE IMPLEMENTED AS A STANDARD AND PURSUANT TO SECTION 23.07.174 OF THE CZLUO.]

Policy 25: Streambed Alterations. Channelizations, dams or other substantial alterations of rivers and streams shall be limited to: a) necessary water supply projects, b) flood control projects when there are no other feasible methods for protecting existing structures in the flood plain and where such protection is necessary for public safety or to protect existing development, and c) development where the purpose is to improve fish and wildlife habitat. All projects must employ the best feasible mitigation measures. Maintenance and flood control facilities shall require a coastal development permit. [THIS POLICY SHALL BE IMPLEMENTED PURSUANT TO SECTION 23.07.174 OF THE CZLUO.]

Policy 26: Riparian Vegetation. Cutting or alteration of naturally occurring vegetation that protects riparian habitat is not permitted except for permitted streambed alterations (defined in Policy 23) and where no feasible alternative exists or an issue of public safety exists. This policy does not apply to agricultural use of land where expanding vegetation is encroaching on established agricultural uses. Minor incidental public works project may also be permitted where no feasible alternative exists including but not limited to utility lines, pipelines, driveways and roads. Riparian vegetation shall not be removed to increase agricultural acreage unless it is demonstrated that no impairment of the functional capacity of the habitat will occur. Where permitted, such actions must not cause significant stream bank erosion, have a detrimental effect on water quality or quantity, or impair the wildlife habitat values of the area. This must be in accordance with the necessary permits required by Sections 1601 and 1603 of the California Fish and Game Code. [THIS POLICY SHALL BE IMPLEMENTED PURSUANT TO SECTION 23.07.174 OF THE CZLUO.]

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. [THIS POLICY SHALL BE IMPLEMENTED PURSUANT TO SECTION 23.07.174 OF THE CZLUO.]

Coastal Watersheds:

Policy 1: Preservation of Groundwater Basins. The long-term integrity of groundwater basins within the coastal zone shall be protected. The safe yield of the groundwater basin, including return and retained water, shall not be exceeded except as part of a conjunctive use or resource management program which assures that the biological productivity of aquatic habitats are not significantly adversely impacted. [THIS POLICY SHALL BE IMPLEMENTED AS A STANDARD.]

Policy 2: Water Extractions. Extractions, impoundments and other water resource developments shall obtain all necessary county and/or state permits. All pertinent information on these uses (including water conservation opportunities and impacts on in-stream beneficial uses) will be incorporated into the data base for the Resource Management System and shall be supplemented by all available private and public water resources studies available. Groundwater levels and surface flows shall be maintained to ensure that the quality of coastal waters, wetlands and streams is sufficient to provide for optimum populations of marine organisms, and for the protection of human health. (Public works projects are discussed separately.) [THIS POLICY SHALL BE IMPLEMENTED AS A STANDARD.]

Policy 3: Monitoring of Resources. In basins where extractions are approaching groundwater limitations, the county shall require applicants to install monitoring devices and participate in water monitoring management programs. [THIS POLICY SHALL BE IMPLEMENTED AS A STANDARD AND PURSUANT TO SECTION 8.40.065 OF THE COUNTY CODE (WATER WELL REGULATIONS).]

Policy 7: Siting of New Development. Grading for the purpose of creating a site for a structure or other development shall be limited to slopes of less than 20 percent except:

- Existing lots of record in the Residential Single-Family category and where a residence cannot be feasibly sited on a slope less than 20 percent;
- When grading of an access road or driveway is necessary to provide access to an area of less than 20 percent slope where development is intended to occur, and where there is no less environmentally damaging alternative;

The county may approve grading and siting of development on slopes between 20 percent and 30 percent through Minor Use Permit, or Development Plan approval, if otherwise required by the Coastal Zone Land Use Ordinance. Also in review of proposed land divisions, each new parcel shall locate the building envelope and access road on slopes of less than 20 percent. In allowing grading on slopes between 20 percent and 30 percent the county shall consider the specific characteristics of the site and surrounding area that include but are not limited to: the proximity of nearby streams or wetlands, the erosion potential and slope stability of the site, the amount of grading necessary, neighborhood drainage characteristics and measures proposed by the applicant to reduce potential erosion and sedimentation. The county may also consider approving grading on slopes between 20 percent and 30 percent where it has been demonstrated that there is no other feasible method of establishing an allowable use on the site without grading. Grading and erosion control plans shall be prepared by a registered civil engineer and accompany any request to allow grading on slopes between 20 percent and 30 percent. It shall also be demonstrated that the proposed grading is sensitive to the natural landform of the site and surrounding area.

In all cases, siting of development and grading shall not occur within 100 feet of any environmentally sensitive habitat. In urban areas as defined by the Urban Services Line, grading may encroach within the 100 foot setback when locating or siting a principally permitted development, if application of the 100 foot setback renders the parcel physically unusable for the principally permitted use. Secondly, the 100 foot setback shall only be reduced to a point at which the principally permitted use, as modified as much as practical from a design standpoint, can be accomplished to no point less than the setback allowed by the planning area standard or 50 feet whichever is the greater distance. [THIS POLICY SHALL BE IMPLEMENTED PURSUANT TO COASTAL ZONE LAND USE ORDINANCE SECTIONS: 23.05.034 (GRADING) AND 23.04.021 (LAND DIVISIONS).]

Policy 9: Techniques for Minimizing Sedimentation. Appropriate control measures (such as sediment basins, terracing, hydro-mulching, etc.) shall be used to minimize erosion and sedimentation. Measures should be utilized from the start of site preparation. Selection of appropriate control measures shall be based on evaluation of the development's design, site conditions, predevelopment erosion rates, environmental sensitivity of the adjacent areas and also consider costs of on-going maintenance. A site specific erosion control plan shall be prepared by a qualified soil scientist or other qualified professional. To the extent feasible, non-structural erosion techniques, including the use of native species of plants, shall be preferred to control run-off and reduce increased sedimentation. [THIS POLICY SHALL BE IMPLEMENTED AS A STANDARD AND PURSUANT TO SECTION 23.05.036 OF THE CZLUO.]

Policy 10: Drainage Provisions. Site design shall ensure THAT drainage does not increase erosion. This may be achieved either through on-site drainage retention, or conveyance to storm drains or suitable watercourses. [THIS POLICY SHALL BE IMPLEMENTED AS A STANDARD AND PURSUANT TO SECTION 23.05.034 OF THE CZLUO.]

Policy 11: Preserving Groundwater Recharge. In suitable recharge areas, site design and layout shall retain runoff on-site to the extent feasible to maximize groundwater recharge and to maintain in-stream flows and riparian habitats. [THIS POLICY SHALL BE IMPLEMENTED AS A STANDARD.]

Hazards:

Policy 1: New Development. All new development proposed within areas subject to natural hazards from geologic or flood conditions (including beach erosion) shall be located and designed to minimize risks to human life and property. Along the shoreline new development (with the exception of coastal-dependent uses or public recreation facilities) shall be designed so that shoreline protective devices (such as seawalls, cliff retaining walls, revetments, breakwaters, groins) that would substantially alter landforms or natural shoreline processes, will not be needed for the life of the structure. Construction of permanent structures on the beach shall be prohibited except for facilities necessary for public health and safety such as lifeguard towers. [THIS POLICY SHALL BE IMPLEMENTED AS A STANDARD.]

Policy 2: Erosion and Geologic Stability. New development shall ensure structural stability while not creating or contributing to erosion or geological instability. [THIS POLICY SHALL BE IMPLEMENTED AS A STANDARD AND PURSUANT TO SECTION 23.07.086 OF THE CZLUO.]

Policy 3: Development Review in Hazard Areas. The county shall require a detailed review of development proposed within the geologic study area and flood hazard combining designations as indicated on the Land Use Element maps for the coastal zone. The review shall be performed by a qualified registered and/or certified engineering geologist and shall be adequately detailed to provide recommendations and conclusions consistent with this plan. Residential, commercial and industrial development shall be prohibited within the l00 year floodplain (l% chance of inundation in any year) as delineated in the Flood Hazard combining designation except for those areas within an urban reserve line. [THIS POLICY SHALL BE IMPLEMENTED PURSUANT TO SECTIONS 23.07.082, 23.07.084, 23.07.062 AND 23.07.066 OF THE CZLUO.]

Policy 7: Geologic Study Area Combining Designation. The GSA combining designation in coastal areas of the county is amended to include all coastal bluffs and cliffs greater than 10 feet in vertical relief and that are identified in the *Assessment and Atlas of Shoreline Erosion* (DNOD, 1977) as being critical to future or present development. Maps clearly distinguish the different geologic and seismic hazards which the county covers by the GSA combining designation. These hazards shall include steep slopes, unstable slopes, expansive soils, coastal cliff and bluff instability, active faults, liquefaction and tsunami. [THIS POLICY SHALL BE IMPLEMENTED BY DESIGNATING GSA AREAS ON THE COMBINING DESIGNATION MAPS AND PURSUANT TO SECTION 23.07.080 OF THE CZLUO.]

From Coastal Zone Land Use Ordinance:

Section 23.03.045 – Emergency permits:

- Please describe how the proposed project addresses an "emergency" as defined in this section.[1] We understand the project changed earlier in 2014 from a temporary project to a long-term water supply project.
- Please describe the District's understanding of the expiration date on its emergency CDP.[2]

Section 23.07.170e(3) does not allow subsurface water diversions that would cause significant adverse effects on steelhead. Please describe how the project is consistent with this provision.

Section 23.08.288(d) allows public utility uses on sensitive areas such as on prime agricultural soils, Sensitive Resource Areas, Environmentally Sensitive Habitats, or Hazard Areas only when there the permitting agency finds there is no other feasible location on or off-site the property. It also requires that applications for public utility facilities in the above sensitive areas include a feasibility study, prepared by a qualified professional approved by the Environmental Coordinator, that includes a constraints analysis and analysis of alternative locations. Please describe the analyses the District has done to provide consistency with this provision.

[1] Section 23.03.045(a) defines "emergency" as a sudden, unexpected occurrence demanding immediate action to prevent or mitigate loss or damage to life, health, property or essential public services."

[2] Section 23.03.045(b)(5) requires that emergency permits include an expiration date and the necessity for submitting a follow-up permit application.

Richard and Christine Greek
202 Kerwin Street
Cambria, CA 93428

September 30, 2014

Ken Harris, Executive Director
Central Coast Regional Water Quality Control Board
895 Aerovista Place, Suite 1
San Luis Obispo, CA 93402-7906

Re: Letter of Support
CCSD Regular Coastal Development Permit Application, SLO# CDP DRC2013-00112

Cambrian's need your support for resolving our current water crisis. Beyond helping our community with its immediate need, the current and future reviews by your staff should also address:

- the need to begin stabilizing our water supply throughout each year,
- provision of water during future multi-year droughts,
- ensuring our basin is protected from saltwater intrusion, particularly in light of rising sea water levels and the possible need for a minimum five foot barrier as opposed to the current three foot barrier requirement,
- and to protect our regional agriculture, fresh water aquatic, and riparian resources for future generations.

In the context of the above issues ultimately being addressed, we support CCSD's Emergency Water Supply Project Review and solicit the Board's approval to grant a Title 27 permit for the project.

Some background :

Our family has owned the Kerwin lot since 1986 and built our home during 94/95 on Marine Terrace. Since living in Cambria from 1995, it has not been unusual to experience water restrictions in the Fall/Early Winter period. Early on we included a landscape pond for roof rainwater catchment and added bio swales to our landscape stream bed three years ago. We recently added a 500 gallon above ground tank and pump for holding additional roof rainwater and for storing hauled non potable water purchased from the Warren Ranch. Plants and our landscape are an important component to our quality of life as well as helping to reduce our carbon footprint. Our established landscape is largely draught tolerant species (but not water free) and we have not planted annuals or vegetables this year.

Our water is no longer softened and now only filtered with a LifeSource Filter System

substantially reducing potable water usage for soft water recharge and eliminating the environmental contamination from potassium salt. We catch the LifeSource recharge water, about 30 gallons every 21 days, in a container (for use on edible plants) and the pond. We have reduced our total potable water usage to 2 units per billing period. However, this is time consuming and less than desirable from a safety vantage (lifting buckets, trucking non potable water, hand watering plants rather than using drip irrigation, and not purging our fire sprinkler system or water heater as recommended), as well as compromising sanitation relative to cleaning and proper hand washing.

We hope that in the near future our community will have a year round dependable potable water supply with a conservative, but improved allocation.

Sincerely,

Richard and Christine Greek

Ken Harris, Executive Director
Central Coast Regional Water Quality Control Board

CCSD Regular Coastal Development Permit Application, SLO #CDP DRC2013-00112

Dear Mr. Harris,

I am a resident of Cambria, and I support the Cambria Community Services District's ("CCSD") Emergency Water Supply Project ("Project". I submit this letter to urge the Board to grant CCSD a Title 27 permit for the evaporation pond and related equipment at the Project.

Cambria is currently suffering under exceptional water use restrictions that impact the community's quality of life and well-being. Our town needs the Project to stabilize our water supply and return our lives to normal.

We Cambrians have been under severe restrictions when it comes to using our fresh water. Our lifestyle and everyday habits have been impacted. We have cut our personal use of water drastically. We do not even have public bathrooms any more in town!

I understand that your Board exists to protect all Californians regarding their water quality and supplies. As we understand the CCSD project, it is to be used both to deal with the present drought emergency and to ensure that Cambria will have an adequate supply of water to prevent crises in the inevitable droughts of the future.

I also support Cambrians for Water and that organization's efforts to support the CCSD in gaining all necessary permits from the Central Coast Regional Water Quality Control Board.

Date 9/13/2014

Name Signed

MARK LANDGREEN

Print Name

GREENSPACE
THE CAMBRIA LAND TRUST

RWCB Board Members
Ryan Lodge
Central Coast Regional Water Control Board
895 Aerovista Place, Suite 101
San Luis Obispo, CA 93401

September 27, 2014

RE: DRAFT WASTE DISCHARGE REQUIREMENTS ORDER NO. R3-2014-0047
Waste Discharger Identification No. 3 400914531
For CAMBRIA COMMUNITY SERVICES DISTRICT CLASS II SURFACE IMPOUNDMENT SAN LUIS OBISPO COUNTY

Dear CCRWCB Staff and Board:

A number of questions remain unanswered or not addressed regarding the Cambria Community Services District draft discharge order. Please consider the following:

The project claims that the toxic brine discharges from the project will be evaporated naturally and mechanically during operation and the discharge flow will not exceed the evaporation claims. Roughly 600,000 gallons of evaporation will occur naturally per year and the remaining liquid mechanically evaporated. Given that this claim is accurate, it becomes apparent that the remaining water in the toxic brine pit will become highly concentrated with chemicals either falling from the mechanical evaporators or from settling in the pit over time. Therefore, the toxic constituents in the pond increase each year becoming ever more dangerous to public health and safety. The question is will birds be harmed by landing in the pit? How about other forms of wildlife? Since this operation is located on the Pacific flyway and the area is known to contain many bird species and some migratory birds spend summers in the area how will they be protected from the toxic brine? More importantly, the mist that the evaporators create will be more toxic and molecules containing dangerous chemicals will attach to fog creating acid fog. The fog will certainly move beyond the project site and have consequences to the public, agriculture products, and livestock.

It is imperative that The discharge permit be examined with more thought to what may happen with public health and safety then the current draft order addresses. The potential to harm

RICHARD HAWLEY
EXECUTIVE DIRECTOR

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people and wildlife has grown exponentially with the evaporation design. Mitigation and preventative actions are missing and the order is remiss in protecting the public and environment.

In addition, has there been any test to assure the public that the pit liner can withstand the chemical corrosive action on the liner membrane? If so, please cite the analysis. If not, then other mitigation measures are required and an emergency plan to deal with toxic chemical leaks into the ground water basin must be included in this draft discharge order. The potential of contaminating the high value ecosystem and ground water basin has gone from near zero percent to something likely to happen with the brine pit design and there is simply not enough planning to address spills, leaks and accidents. How often will the liner need to be replaced due to normal UV exposure? What is the protocol on liner replacement and what happens to the concentrated toxic sludge at the bottom of the holding pit? Where will it go?

The project presented to agencies and to the public is a 'dry plant'. In other words, the plant is built and we are stuck with running it without knowing how or what to do if a spill happens or an explosion occurs that creates chlorine gas. No one knows how to mix the many chemicals required to make this thing work or what to do if something goes wrong. We have no skilled operators. Who will respond to chemical leaks and accidents on site? First responders will likely be State Parks, CalFire and the Cambria Fire Department. Will they know what chemical constituents they are dealing with and what to do? How will the campground be evacuated if the weather station malfunctions and the evaporators continue to spew toxic mist over unsuspecting hikers, beach goers, farm workers and nearby residents, livestock and wildlife? Is there a plan for State Parks to implement if all these high-tech components fail and created an emergency?

It is important that issuing a discharge order be more inclusive with what dangers the discharge has the ability to create. In the Discharge Order before the board much is missing in the public safety aspects of the draft discharge order. The above questions and issues must be addressed before the board can justify voting on this discharge order.

Best wishes on your deliberations,

Richard Hawley

Warren Wolfe
PO Box 127, Cambria, CA 93428 • w.wolfe@ymail.com

September 23, 2014

Ken Harris, Executive Director
Central Coast Regional Water Quality Control Board
895 Aerovista Place, Suite 1
San Luis Obispo, CA 93402-7906

Re: Letter of Support
CCSD Regular Coastal Development Permit Application, SLO# CDP DRC2013-00112

Dear Mr. Harris:

My family has owned property in Cambria for fifty-two years. In 2002 I achieved a life-long dream of building a custom home on Marine Terrace and relocated from Southern California to retire.

Frankly, I was not prepared for the small town politics inherent in Cambria. It appears literally every attempt to achieve any form of community consensus / progress brings out what some refer to as "The CAVE People" (Cambrians Against Virtually Everything). They are certainly active as Cambria struggles to address our current water crisis.

My family has done our part – we have reduced our potable water consumption in 2014 from 7 Units per two months (2013) to 2 Units (2014) as of our last Cambria Community Service District's (CCSD) billing. This represents a **huge** reduction in water use for a three bedroom, three bath single family dwelling. Our lifestyle, as is true for all Cambria residents, has been drastically altered. The current CCSD water use restrictions, albeit necessary, are unpleasant to live with.

If California's severe drought continues, and no significant rainfall occurs to replenish Cambria's water table, we face a dismal future. What happens when a resident turns on a water tap and nothing happens? No one will be immune – local business, tourism, real estate values and quality of life.

Cambria needs a means to stabilize our water supply to offset our current crisis, and to provide water during future drought. **It is for this reason I support CCSD's Emergency Water Supply Project and solicit the Board's approval to grant a Title 27 permit for said project.**

Sincerely,

Warren Wolfe, Cambria Resident