



CAMBRIA COMMUNITY SERVICES DISTRICT
CALL BY THE PRESIDENT AND FINAL AGENDA
FOR SPECIAL MEETING OF THE BOARD OF DIRECTORS

I, Greg Sanders, President of the Cambria Community Services District Board of Directors, hereby call a Special Meeting of the Board of Directors pursuant to California Government Code Section 54956. The Special Meeting will be held: **Tuesday, January 05, 2010, 12:00 PM, 1000 Main Street, Veterans Memorial Building, Cambria, CA.** The purpose of the special meeting is to discuss or transact the following business:

AGENDA
SPECIAL MEETING OF THE CAMBRIA COMMUNITY SERVICES DISTRICT
BOARD OF DIRECTORS
TUESDAY, JANUARY 05, 2010, 12:00 PM
1000 MAIN STREET
Cambria, CA

1. **OPENING**
 - A. **Call to Order**
 - B. **Establishment of Quorum**
 - C. **Pledge of Allegiance**
 - D. **Adjourn to Closed Session**
 1. **CONFERENCE WITH LABOR NEGOTIATORS**
Agency Designated Representatives: General Manager
Employee Organization: IAFF Local 4635, Cambria CSD
 - E. **Reconvene to Open Session – 12:30 PM**
 - F. **Report from Closed Session**
2. **PUBLIC COMMENT** Members of the public wishing to address the Board on any item described in this Notice may do so when recognized by the Board President. Public comment on this agenda will be limited to 3 minutes per person.
3. **SPECIAL MEETING BUSINESS**
 - A. Consider Adoption of Resolution 01-2010 Approving a Geotechnical and Hydrogeologic Study at Santa Rosa Creek Beach and Directing Staff to File a Notice of Exemption, Pursuant to Title 14 California Code of Regulations § 15306
4. **PUBLIC COMMENT** Members of the public wishing to address the Board on any item described in this Notice may do so when recognized by the Board President. Public comment on this agenda will be limited to 3 minutes per person.
5. **ADJOURN**

Notice of this special meeting shall be delivered to each member of the Board of Directors and to each local newspaper of general circulation and radio or television station who have requested such notice. Notice must be received at least twenty-four (24) hours before the time set for the special meeting.

Dated: December 30, 2009

By:

/s/
Gregory W. Sanders, President

CAMBRIA COMMUNITY SERVICES DISTRICT

TO: Board of Directors

AGENDA NO. **3.A.**

FROM: Robert Gresens, District Engineer

Meeting Date: January 5, 2010

Subject: CONSIDER ADOPTION OF RESOLUTION
01-2010 APPROVING A GEOTECHNICAL
AND HYDROGEOLOGIC STUDY AT
SANTA ROSA CREEK BEACH AND
DIRECTING STAFF TO FILE A NOTICE OF
EXEMPTION, PURSUANT TO TITLE 14
CALIFORNIA CODE OF REGULATIONS §
15306

RECOMMENDATION:

Adopt Resolution No. 01-2010, entitled "Resolution of the Board of Directors of the Cambria Community Services District Approving a Geotechnical and Hydrogeologic Study at Santa Rosa Creek Beach and Directing Staff to File a Notice of Exemption, Pursuant to Title 14 California Code of Regulations § 15306."

FISCAL IMPACT:

The geotechnical and hydrogeologic study is being funded from a Federal Water Resource Development Act (WRDA) grant, which pays for 75-percent of the cost. The remaining 25-percent local share is funded from an earlier \$166,000 payment that was previously authorized by your Board on September 18, 2009. The Army Corps of Engineers (ACE) administers the consulting contracts and expenditures through their WRDA program. The ACE currently has prime consulting agreements in place with Diaz-Yourman for the geological and hydrogeologic study; and with Noble Consulting for the environmental review and clearance process.

DISCUSSION:

The geotechnical and hydrogeologic study is a data collection effort for purposes of developing various water supply alternatives that will be further analyzed within a separate, subsequent project-level environmental impact statement and environmental impact report (EIS/EIR). Understanding the subterranean characteristics is critical for well reasoned analysis and decision making in evaluating whether to proceed with potential water supply projects. An earlier geophysical investigation conducted in 2008, which relied upon surface-based measurements, found three paleochannels within this area. The more detailed

geotechnical and hydrogeologic study will characterize the sediments that were deposited in these areas over geologic time.

The Santa Rosa Creek beach area study avoids issues that were associated with an earlier study proposed at the San Simeon Creek beach, which was appealed to the Coastal Commission. Key advantages of studying the Santa Rosa Creek beach area include:

- **No western snowy plover critical habitat or nesting** – The project site at Santa Rosa Creek Beach is not designated as snowy plover critical habitat and is not a snowy plover nesting site. The San Simeon site is designated Critical Habitat and is a nesting area for the federal threatened western snowy plover.
- **No marine mammal haul out** – No marine mammal haul out sites are located near Santa Rosa Creek Beach. Northern elephant seals haul out near the San Simeon site.
- **No seismic reflection survey** – The geotechnical investigation at Santa Rosa Beach does not include a seismic reflection survey. The proposed investigation involves only swimmers with hand held or similar devices logging gps coordinates within coastal waters. The previously proposed investigation at San Simeon Beach included a seismic reflection survey with potential noise and pressure impacts of the mini-sparker on marine mammals and other marine life.
- **No construction of an access ramp or use of a crane for vehicles to access the beach** – The Santa Rosa Creek site already has a vehicle access ramp that can be used for the investigation. The geotechnical investigation proposed at San Simeon would have required either the construction of an access ramp or the use of a crane to get vehicles onto the beach.
- **Minimal public access issues** – The geotechnical investigation at Santa Rosa Creek Beach would use only 10 of the 66 parking spaces at Shamel Park adjacent to Santa Rosa Creek Beach or approximately 15 percent of the available public parking. In addition, the investigation at Santa Rosa Creek Beach would not interfere in any way with the most convenient access to Santa Rosa Creek Beach – the stairway from Shamel Park to the beach. For equipment staging, the proposed study at San Simeon Beach would have used 10 parking spaces, which is half of the public parking area. The investigation at San Simeon also would have interfered to some extent with beach access.
- **No degradation of views from Scenic Highway 1** – Santa Rosa Creek Beach is not visible from Highway 1. For the previously proposed geotechnical investigation at San Simeon Beach, equipment would be visible from Scenic Highway 1.
- **No land use designation issues** – The Santa Rosa Creek Beach site is within the Cambria Urban Area Land Use designation. The San Simeon site is in the area designated as Rural Area Land Use.

The geotechnical and hydrogeologic study is described in detail within the attached Coastal Consistency Determination (CCD) that the Army Corps of Engineers (ACE) and project consultants prepared for the Coastal Commission. A CCD hearing is currently scheduled to

occur sometime during the Coastal Commission's February 2010 meeting. The following provides a brief summary of the planned study:

- 1) A maximum of three monitoring wells (6 to 8 inches in diameter each) will be installed for periodic groundwater sampling and monitoring over a two-year maximum time period. Each monitoring well will initially serve as a test well, which will involve lowering a submersible pump into the casing and pumping over a 72-hour period while measuring the groundwater levels in nearby wells. Each well will be buried under three feet of beach sand at the end of the pumping test and will be kept covered over the sampling period. Hand tools would be used for uncovering the well cap during periodic sampling. The wells will also be removed following the monitoring period, which may involve using a roto sonic rig or a hollow stem auger. If a hollow stem auger is used, the upper ten feet of each well would be drilled out, with native materials replacing the upper ten feet. Well abandonment would also comply with all regulatory requirements, which typically require grouting the remaining well casing. In either case, the intent is to only leave footprints when the study is complete.
- 2) The remainder of the study will involve coring samples at approximately six to seven remaining locations along the State beach and County-owned Shamel park beach. The samples are planned to be obtained using a roto sonic rig and are typically 4 to 6-inch diameter corings that are collected into elongated plastic bags for analysis. Therefore, there should not be any waste material associated with this method. Either the sampled material or native materials from the beach would be used to fill each sample hole. The locations of the sample corings will be above the mean-high-tide line and may be adjusted depending upon field conditions. The corings would occur over a two to three week period depending upon field conditions and the actual progress achieved by the driller.
- 3) Equipment will be removed from the beach at the end of each work day and stored at the CCSD wastewater treatment plant off of Heath Lane. The equipment will be either track mounted or rubber-tire suitable for beach access. Besides the roto sonic rig, there will be one support vehicle that typically supplies coring tubes to the rig. A small four-wheel drive pickup or ATV may also be used to support the on-site geologist for purposes of collecting and transporting samples.
- 4) Public access onto the beach will be maintained at all times. Temporary protective markings, such as barrier tape, or plastic fencing will also be placed around the sampling rig. The work will comply with a spill prevention plan and related best management practices.

CEQA Review

The ACE is serving as the lead Federal agency on the project. To comply with Federal NEPA requirements, the ACE has completed a categorical exclusion and has presented its Coastal Consistency Determination to the Coastal Commission staff for review. The CCD will also be reviewed as part of a future Coastal Commission meeting. It is at the CCSD Board's discretion

to find that the recommended exemption is appropriate and to authorize staff to file the attached Notice of Exemption, which complies with CEQA. This filing is also required for compliance with State Parks regulations, prior to their issuance of a right-of-entry permit.

CEQA provides certain categorical exemptions of certain classes of projects that do not have a significant effect on the environment. For the geotechnical and hydrogeologic study, CEQA Guidelines Section 15306 provides for a Class 6 exemption for information collection consisting of data collection, research, and similar activities that do not result in a serious or major disturbance to an environmental resource

Attachments:

1. Resolution 01-2010 entitled "Resolution of the Board of Directors of the Cambria Community Services District Approving a Geotechnical and Hydrogeologic Study at Santa Rosa Creek Beach and Directing Staff to File a Notice of Exemption, Pursuant to Title 14 California Code of Regulations § 15306."
2. Notice of Exemption
3. Coastal Consistency Determination by the Army Corps.

BOARD ACTION: Date _____ Approved: _____ Denied: _____

UNANIMOUS: ___SANDERS___ CLIFT ___ CHALDECOTT ___ DE MICCO ___ MACKINNON_____



CAMBRIA COMMUNITY SERVICES DISTRICT

RESOLUTION 01-2010

January 5, 2010

**A RESOLUTION OF THE BOARD OF DIRECTORS
OF THE CAMBRIA COMMUNITY SERVICES DISTRICT
APPROVING A GEOTECHNICAL AND HYDROGEOLOGIC STUDY AT SANTA
ROSA CREEK BEACH AND DIRECTING STAFF TO FILE A NOTICE OF
EXEMPTION**

WHEREAS, On January 5, 2010 the District Board conducted a special public meeting for purposes of considering proceeding with a geotechnical and hydrogeologic study at Santa Rosa Creek Beach; and

WHEREAS, after considering all evidence, including public testimony, the Board finds that it is in the best interests of the community to proceed with such a study.

Now Therefore, the Board of Directors of the Cambria Community Services District does hereby resolve as follows:

1. The Geotechnical and Hydrogeologic study at the Santa Rosa Creek Beach is hereby approved.
2. The CCSD Manager or her designated representative is directed to file a Notice of Exemption for the study with the Office of the County Clerk, in compliance with the California Environmental Quality Act.

PASSED AND ADOPTED THIS 5th day of January 2010.

Gregory W. Sanders, President
Board of Directors

Tim Carmel
District Counsel

ATTEST:

Kathy A. Choate, District Clerk

Notice of Exemption

Appendix E

To: Office of Planning and Research
1400 Tenth Street, Room 121
Sacramento, CA 95814

From: (Public Agency)
Cambria Community Services Department
P.O. Box 65
Cambria, CA 93428

County Clerk
County of San Luis Obispo
1055 Monterey Street, D-120
San Luis Obispo, CA 93408

Project Title: Geotechnical and Hydrogeologic Investigation Study at Cambria

Project Location - Specific: Santa Rosa Creek State Beach and Shamel County Park Beach at Cambria from Santa Rosa Creek mouth downcoast to the beach adjacent to the Shamel Park southern staircase

Project Location - City: Cambria

Project Location - County: San Luis Obispo

Description of Nature, Purpose, and Beneficiaries of Project: This proposed data gathering and analysis will provide an assessment and characterization of subterranean materials and hydrology. This study involves geotechnical sampling investigations specifically at the Santa Rosa Creek State Beach Park and Shamel County Park beach sites. This study proposes information gathering activities through geotechnical sampling only and will not include the construction of any features or structures that are not described as part of this study.

Name of Public Agency Approving Project: Cambria Community Services Department

Name of Person or Agency Carrying Out Project: Cambria Community Services Department

Exempt Status: (*check one*)

Ministerial (Sec. 21080(b)(1); 15268);

Declared Emergency (Sec. 21080(b)(3); 15269(a));

Emergency Project (Sec. 21080(b)(4); 15269(b)(c));

Categorical Exemption. State type and section number: Class 6: Information Collection. (Sec. 15306)

Statutory Exemptions. State code number:

Reasons why project is exempt: The Geotechnical and Hydrogeologic Investigation Study at Cambria consists of basic data collection, research, and resource evaluation activities which do not result in a serious or major disturbance to an environmental resource. This study is for information gathering purposes only.

Lead Agency

Contact Person: Robert C. Gresens

Area Code/Telephone/Extension: 805-927-6119

If filed by applicant:

1. Attach certified document of exemption finding.

2. Has a Notice of Exemption been filed by the public agency approving the project? Yes No

Signature:

Signed by Lead Agency

Signed by Applicant

Date:

Date received for filing at OPR:

Title:

Revised October 1989



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY

LOS ANGELES DISTRICT CORPS OF ENGINEERS
P.O. BOX 532711
LOS ANGELES, CALIFORNIA 90053-2325

December 21, 2009

Environmental Resources Branch

Mr. Tom Luster
California Coastal Commission
45 Fremont Street, Suite 2000
San Francisco, California 94105

Dear Mr. Luster:

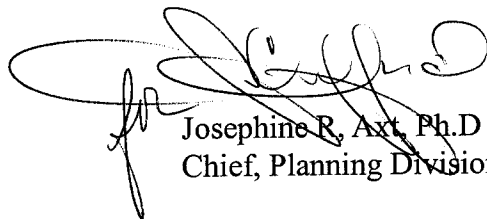
The Los Angeles District of the U.S. Army Corps of Engineers (Corps) proposes a Geotechnical and Hydrogeologic Feasibility Investigation Study at Cambria in San Luis Obispo County, California. This proposed investigation will provide an assessment of the feasibility only of including this design alternative for a proposed seawater desalination facility in Cambria. This document assesses the effects of geotechnical sampling investigations specifically at the Santa Rosa Creek State Beach Park and Shamel County Park beach sites. This study proposes information gathering activities through geotechnical sampling only and will not include the construction of any features or structures that are not described as part of this feasibility study.

In accordance with the National Environmental Policy Act this Project will be considered for a Categorical Exclusion for Planning and Technical Studies. The proposed future seawater desalination facility will require a separate environmental document and processing effort and is not included as part of this Project.

The Corps has evaluated the geotechnical sampling investigation proposed at Santa Rosa State Beach Park Creek and Shamel County Park Beaches; and has found it consistent to the maximum extent practicable with the California Coastal Act of 1976, as amended. Enclosed is the Coastal Consistency Determination prepared for this feasibility study.

We respectfully request California Coastal Commission (CCC) concurrence with our consistency determination. If you have any questions or requests for additional information, please feel free to contact Thomas W. Keeney at 213-452-3875 or Thomas.W.Keeney@usace.army.mil.

Sincerely,



Josephine R. Art, Ph.D.
Chief, Planning Division

Enclosure

Coastal Consistency Determination
Geotechnical and Hydrogeologic Investigation
Cambria, CA

1.0 AUTHORITY

This Coastal Consistency Determination (CCD) is submitted in compliance with 15 CFR Section 930.30 et seq. of the National Oceanic and Atmospheric Administration (NOAA) Federal Consistency Regulations (15 CFR 930). This study is being conducted in accordance with Section 219 of the Water Resources Development Act (WRDA) of 1992 (Public Law 102-580), paragraph (f) “Additional Assistance,” line item no. 48 “CAMBRIA, CALIFORNIA” (US Congress 2000).

2.0 DETERMINATION

The US Army Corps of Engineers (Corps) Los Angeles District has evaluated the geotechnical investigations proposed at Santa Rosa Creek and Shamel Park Beaches and has found it consistent to the maximum extent practicable with the California Coastal Act of 1976, as amended. The environmental consideration and consistency sections below provide the basis for the finding. The Corps respectively requests that the California Coastal Commission (CCC) concur with this consistency determination.

3.0 STUDY DESCRIPTION

The Corps proposes to conduct a Geotechnical and Hydrogeologic Investigation Study at Cambria, San Luis Obispo County, California. Cambria is located approximately 35 miles northwest of the City of San Luis Obispo and 25 miles west of the City of Paso Robles. The study area will include the beach area at the mouth of Santa Rosa Creek State Beach Park downcoast to the beach adjacent to Shamel County Park. The Study site is in Sections 8 and 17, Township 27 South, Range 8 East, Mount Diablo Base and Meridian of the United States Geological Survey (USGS) Cambria quadrangle. Figure 1 provides a study vicinity map and Figure 2 shows the study location. Attachment A provides photographs of the Study site.

Past geophysical surveys at Santa Rosa Creek did not characterize the subterranean conditions with regard to hydraulic conductivity and location of an inland saltwater wedge area. Therefore, further geotechnical and hydrogeologic investigation of the Shamel Park and Santa Rosa Creek beach areas is needed to assess and characterize the subsurface materials and hydrology.

The objective of this initial investigation is to help define the paleochannel extension offshore from the Santa Rosa Creek beach to characterize the subsurface materials and hydrology. This study proposes information gathering activities only and will not include the construction of any features or structures that are not described in this document. The proposed future seawater desalination facility will require a separate environmental document and processing effort and is not included as part of this Study. The proposed data gathering activities will include:

- Ground-truthing the existing geophysical surveys;
- Exploring the subterranean conditions to determine approximate location and application of various proposed study elements;
- Collecting subterranean data to characterize the subsurface materials and hydrology; and
- Summarizing the data collected in a written report.

Based on previous geophysical findings, this initial investigation will consist of geophysical surveys and soil borings along the Santa Rosa Creek beach, laboratory analysis, pump tests, and computer modeling to:

- Classify the lithology and material gradation within the beach-area paleochannels;
- Define the hydraulic characteristics of the alluvial deposits within the beach-area paleochannels;
- Determine the surface and ground water quality and soil properties preliminary computer modeling; and
- Preliminarily estimate ground water flow patterns and quantities.

3.1 Proposed Action

The investigation will consist of onshore subsurface exploration (borings). The site investigation will occur onshore along the beach, entirely above (landward of) the mean higher high water line. The onshore subsurface exploration will occur at approximately 10 sites between the current mouth of Santa Rosa Creek and slightly south of the southern staircase at Shamel Park. Ten test-holes will be drilled at the approximate locations shown on the Study Location Map (Figure 2). The rotosonic drilling process will obtain nearly continuous and relatively undisturbed core samples extending from ground surface to the final depth of the drill hole. The locations and depths of the test holes are based on 2008 surface geophysical work. The proposed exploration locations may be subject to minor relocation (i.e., within a 50-foot radius) during the course of the field investigation based on geologic conditions or site conditions. These conditions include the depth to bedrock or nature of the sediments, tide, storm events, wave run-up, then-current beach topography, or presence of any other impediment. The locations of the test holes may be moved across the beach or up- or down-beach up to 100 feet to accommodate site conditions, but will not be moved outside of the designated study area.

It is anticipated that test holes at Sample Sites 2, 5 and 9 will be converted to test wells as part of this geotechnical exploration testing; however, based on data collected, other test hole sites may be considered for conversion to test wells depending on hydrogeologic conditions. Each test well will have up to two monitoring wells adjacent at distances of less than 20 feet. Hydraulic testing will not be conducted from wells within 50 feet of the Santa Rosa Creek lagoon unless actual flows are greater than the estimated test flow used to determine the study area boundaries. Section 3.1.4 provides detail regarding this chosen distance for the study area boundary. For low lagoon flow periods (i.e., rate less than the proposed test pumping rate), preliminary hydraulic modeling shall be performed to confirm that the lagoon will be outside the cone of influence of the test well. The topographic and hydrographic surveys will cover the onshore study area. Sections 3.1.7 and 3.1.8 of this CCD describe the schedule and removal of all test holes, test wells, and monitoring wells.

3.1.1 Topographic and Hydrographic Surveys

Beach and nearshore surveys will be performed in order to obtain topographic and hydrographic data along the coastline. A land topographic and nearshore survey will be performed along several beach profile lines utilizing a combination of Real-Time Kinematic (RTK) and conventional land surveying techniques to achieve centimeter (cm) level positioning accuracy both horizontally and vertically. A five-man crew of two surveyors and three swimmers will utilize a combination of RTK and conventional land surveying techniques. Beach and surf zone topography can vary significantly due to variation in storm and surf conditions. Accordingly, monitoring surveys will be conducted following the winter storm/high surf season and again in the quieter late summer season.

The beach survey will be conducted by RTK techniques utilizing a set of Trimble 5700 dual frequency GPS receivers; the “Reference Receiver” (base station), and a “Rover” equipped with a Trimble Survey Controller (TSCe) data logger. In areas with easy access to the beach, and upon approval by the County and State parks, the Rover GPS receiver will be mounted on an all terrain vehicle (ATV). Otherwise and where access is difficult or constrained by regulations or low tide access only, the rover will be set up on a back pack.

The RTK reference receiver will take measurements from satellites in view and then broadcast the measurements to the rover receiver. The rover receiver also will collect measurements from the satellites in view and will process them with the reference station data. The rover then estimates its location relative to the reference station. The reference receiver and rover will take measurements at regular 1-second epochs and produce position solutions at the same rate. The reference station will be equipped with a TRIMMARK 3 radio modem and a Yagi antenna that enables the data link to be transmitted to the global positioning system (GPS) receiver outfitted with an internal receive-only radio.

The nearshore survey will be conducted by conventional surveying techniques utilizing a Topcon electronic total station and an HP 200LX data logger in conjunction with an extendible (6 meters [m]) range pole and prism assembly to make trigonometric measurements from control points established onshore to points along the profile lines. The Topcon will be utilized in the fast-tracking mode to acquire shots to the swimmer (Rodman) rapidly. This will be critical to collecting data in the surf zone where it will be possible to hold the range pole assembly stationary for only a brief moment.

Control points with a northing, easting, and elevation value will be established at each survey line utilizing RTK methods. All surf zone data collected with swimmers will be referenced back to these control points. The recorded beach and nearshore topographic data for each survey line will be stored digitally. Events recorded will include the start and end time of each survey line, as well as the description of any topographic feature along the survey line. The digitally recorded beach and nearshore data will be downloaded and backed up to a laptop field computer from the Trimble survey controller and total station data collector on a daily basis. Data will be crosschecked and imported into a TerraModel DTM mapping software package for plotting. The mean high tide elevation contour will be added to the map.

All onshore work will be performed with the intent of avoiding impacts to the beach environment during site exploration in accordance with permits and Best Management Practices (BMPs). All study-related activities and equipment will be used in a manner that maintains continuous lateral access along the beach. Permits required for the field exploration will be maintained onsite at all times during site exploration.

3.1.2 Test Holes

The advancement of up to 10 test holes using the rotonic drilling method will be performed to develop a depth to bedrock contour map, collect continuous core samples of the beach sediments, compile detailed logs, maintain photographic records of the exploration operations and, at the appropriate time, destroy the completed wells in accordance with permit conditions. Exploration at each site will be performed by Prosonic Corporation, a California licensed C-57 driller approved by the County of San Luis Obispo. The test holes will be advanced vertically to depths ranging from 50 to 150 feet, limited by the depth to bedrock at each site.

The rotonic method produces a continuous core sample of the sediment, which will be collected, photographed, and stored for future offsite logging and laboratory analysis. Each sample will be either 4- or 6-inches in diameter and between 3 and 5 feet long. Depending on the uniformity of the sample, a portion or the entire sample will be retained. Any sample not retained will be returned to the borehole as backfill in accordance with permit requirements. The collected samples will be brought to the surface in plastic sleeves, which will not be opened at the site, placed in protective core boxes, stored temporarily on a support vehicle, and removed from the beach at the end of each working day. Each sample will be logged offsite by a California Professional Geologist in accordance with the Unified Soil Classification System.

Upon completion of drilling each test hole, the borehole will be backfilled according to this study design outline herein and raked to approximate its pre-exploration condition, in accordance with applicable permits. All construction-related trash, garbage, excess material (e.g., concrete, plastic) will be contained on the study site and removed by the end of each work day. Photographs will be taken before and after exploration at each site to document the return to pre-study conditions.

The exploration equipment may consist of a Morooka/PS-600 track mounted sonic drill rig. The track mounted rig weighs approximately 37,700 pounds and is 41 feet long total. The drilling rig exerts 6.2 pounds per square inch (psi) under each rubber track, approximately one half to one third the pressure imposed by the typical life guard pickup. The rig has been modified to meet the requirements of the EPA for Tier 3 Non-road Diesel standards. Under full drilling conditions, the rig produces approximately 85 decibels (C-weighted) measured at a distance of 100 feet. The rig can travel at approximately 4 to 6 miles per hour on a beach surface.

An alternative drill rig is the WDC/Gus Pech 400RS rubber tire sonic drill rig, an on-road vehicle. The rubber tire drill rig weighs approximately 51,000 pounds. The main engine of the drill unit is a truck-mounted diesel. A hydraulic powered water pump is associated with the rig. The support truck weighs 49,875 pounds with tooling and can hold up to an additional 8,000 pounds of water. Lightweight fiberglass mats approximately 6 feet by 10 feet will be used

beneath the rig on the beach; one mat will be under the front of the rig and one will be under the rear of the rig. The fiberglass mats will disburse the weight of the rig, resulting in the rig exerting approximately 425 pounds per square foot. The fiberglass plates will be moved one in front of the other, or "leap-frogged," ahead of the drill rig and will not be left on the beach. Instantaneous sound level meter results for the 400RS drill rig showed noise levels above 85 dBA up to 35 feet away from the rig during drilling operations. These levels were dependent upon the direction of the rig. The front showed the lowest levels beginning at approximately 90 dBA. The noise levels at the left and rear sides of the drill produced levels of approximately 95 dBA. Under full drilling conditions, the rig produces up to approximately 89 dBA measured at a distance of 70 feet and up to approximately 83 dBA at a distance of 140 feet. Hearing protection with a minimum noise reduction rating of 25 dBA will be required to be worn within 50 feet of the drill rig in operation.

Before mobilizing the drill rig, the capacity of the ramp to support the weight will be verified and if necessary planking will be used for strengthening. For this study, the rig will be using either 6-inch or 8-inch-outside-diameter casing, for installation of either 4-inch or 6-inch-diameter test-well casing. A 4-³/₄-inch outside-diameter casing will be advanced for installation of 2-inch-diameter monitoring wells.

A pipe trailer, or pipe rig, will be mobilized onto the beach along with the exploration rig. The pipe rig is slightly smaller and lighter than the PS-600 and meets the same emissions standards. The support track is similarly mounted on rubber tracks and has a lighter average load, when loaded. The support track will be maintained in a similar manner as the exploration rig in accordance with BMPs.

In order to transport the soil samples off the beach, and to be able to transport staff offsite in the case of an emergency, a mid-sized four wheel-drive truck will be on the beach. The truck will be similar to the trucks used by beach lifeguards (e.g., Toyota Tacoma). The use of a truck will minimize the total number of trips on and offsite to transport samples, as compared to an ATV. The truck will be maintained in a similar fashion to the exploration equipment and will only be moved as necessary for the above purposes. The truck will be removed from the beach each night.

3.1.3 Test Wells

Upon completion, or during the course of the exploration program, up to three test wells and up to six small diameter monitoring wells may be installed. The test wells will either be installed directly within a test hole, or within a subsequent hole located approximately 5 feet from a test hole. Each test well will be installed within an 8-inch-diameter borehole. Each test well will consist of 6-inch Schedule 40 PVC casing with PVC wire-wrapped screen, the depths of which will be selected based on the subsurface conditions encountered at each location. Each well will be naturally gravel packed; that is no sand or gravel will be installed surrounding the well screen. At the surface, the well will be completed in accordance with California Well Standards Bulletin 74-90 and local County of San Luis Obispo Environmental Health Department permit conditions.

Up to two small diameter monitoring wells may be installed adjacent to each test well, for a total of up to six monitoring wells. For each monitoring well, the rotasonic drilling method will drill a 4-¾-inch-diameter borehole without sample collection, inside of which a 2-inch-diameter Schedule 40 PVC monitoring well will be placed. Each monitoring well will be screened at similar depths to the adjacent test well and sealed in a manner similar to the test wells.

In each test well and monitoring well, pressure transducers will be installed, which will be capable of recording water level and temperature data at regular intervals. The transducers will consist of In-Situ Level Troll 500 (photo) or 700 transducers (or similar), capable of recording 100,000 or 350,000 data records, respectively. Each recording will consist of a pressure and temperature reading, likely recorded at an interval of a single reading per hour. The transducers are designed to withstand the pressures and water quality expected throughout testing. The transducers will be small diameter (less than ¾-inch) and powered with a 3.6 volt lithium-ion battery.

In order to pump 100 to 150 gpm from each test well, a 5- to 6-inch-diameter submersible pump will be installed in each test well. The electric pump will be rated between 15 and 20 horsepower and powered with a generator. The discharge from the pump column will be conveyed to the surface using a rigid 2- to 3-inch PVC or steel pipe. At the wellhead, a totalizing flowmeter will be installed capable of recording the instantaneous flow rate (in gpm) and the total amount of water that has flowed through it. The flow rate will be regulated with a 4-inch butterfly valve. A sample port consisting of a ¾-inch hose bib will be available at the wellhead for collection of water-quality samples.

Discharge piping from the well will be installed and will consist of 2- to 4-inch flexible, lay-flat hose directed from the wellhead to the beach away from the surf zone. At the discharge, the hose will be fitted with a bag filter to decrease flow velocity and erosion of the beach. The bag filter will also decrease sediment load and turbidity of the produced water. The bag will be utilized until such time as turbidity is reduced to 50 NTU or less, the level which is typically required as the daily maximum turbidity for discharge.

3.1.4 Aquifer Testing

Aquifer testing will be performed to estimate the hydraulic properties of the aquifer below the beach. Aquifer testing will include a step drawdown test to assess well capacity and efficiency, a 72-hour constant discharge test, and depth-dependent salinity profiles.

Following well installation, each test well and the adjacent monitoring wells will be developed by surge block, pumping and surging, or airlift development techniques. The pumping development of each test well, along with a short-term step drawdown test, will provide an estimate of the pumping rate for the long-term aquifer tests. Short-term step drawdown tests will consist of pumping at up to four discharge rates of between 20 and 150 gallons per minute (gpm) for up to 4 hours per step. Up to 8 hours of recovery will follow step drawdown testing. The anticipated rate of discharge from the test well during the constant discharge test will likely be in the range of 100 to 150 gpm. Up to 12 hours of recovery will follow constant discharge testing. Water levels will be observed and recorded throughout aquifer testing.

Based on the information above, previous hydraulic conductivity studies at Santa Rosa Creek Beach conducted by Fugro in 2008, and an assumed hydraulic conductivity for the coarse-grained sediments of 100 feet per day, the steady-state-cone-of-depression at 50 feet from the pumping well is estimated to be less than 1 foot, which is within the range of tidal influence. The aquifer test data will be analyzed using AquiferWin32 software to determine well efficiency, hydraulic conductivity, and coefficient of storage. The analysis will include water-level corrections for density differences due to salinity and the influence of tides.

The generator to be used for aquifer testing will be capable of producing up to three-phase, 220 volt power to the test pump. The generator will either be operated from a nearby adjacent parking area with a length of cable temporarily laid on the beach or be mobilized onto the beach. Depending on the size of the generator to be used, it will either be transported by hand or by an ATV. All maintenance, transportation, and operation BMPs related to equipment will also apply to the generator.

3.1.5 Study Access

Access to the beach will be via the concrete emergency-vehicle access ramp at Shamel Park. All equipment will enter and exit the beach from this ramp, accessible on the landward (northeast) side by a gravel access road, which runs parallel to the beach to a parking area. As noted above, before mobilizing the rigs, the capacity of the ramp to support the weight will be verified, and if necessary planking will be used for strengthening. Once the equipment is on the beach, it will move to the individual sites by the most direct route. The distance from the farthest sample point (Sample 1) to the access ramp is less than 900 feet. Access to all sites will not require the crossing of Santa Rosa Creek or any water body and will generally follow the shoreline near the topographic high in the area around the mouth of the Creek.

3.1.6 Staging

All equipment will be removed from the beach each night. The exploration equipment, vehicles, trailers, and any supporting equipment will be stored either in the parking lot adjacent to Shamel Park each weeknight (Monday through Thursday) or the Cambria Community Service District's maintenance yard. During weekend nights (Friday, Saturday, and Sunday nights), the equipment may be moved to the Cambria Community Service District's maintenance yard.

3.1.7 Monitoring

Each monitoring well will be used throughout aquifer testing to monitor water levels and, after completion of aquifer testing, to monitor seasonal variations in water quality. Each monitoring well may need to remain for up to one year after installation. Each monitoring well wellhead will be secured to prevent exposure, vandalism, or damage from wave action. The wellheads will be completed below ground as a protective measure. The locations will be mapped and marked with an iron stake, which can be later located with a magnetic detector, and then buried.

Burying and uncovering the monitoring wells for subsequent data retrieval will be completed by hand.

Either during pumping (dynamic) or subsequent (static) monitoring, a depth dependent survey of water quality will be performed using an ion-specific (chloride) conductivity transducer. The transducer will be lowered throughout the water column to record changes in water quality at various depths. Field water quality parameters including electrical conductivity, pH, turbidity, and temperature will be monitored at regular intervals throughout aquifer testing. Up to 10 water samples will be collected during the aquifer testing for chemical analysis.

3.1.8 Removal

Upon completion of aquifer testing, each well will be removed completely by pulling the casing out of the hole with the drill rig or, to the extent practicable, will be completely removed by drilling out with a hollow-stem-auger drill rig (Model CME 75 or CME 85). The individual casing pieces would then be sifted from the beach sand and removed. If the complete removal of test wells is impracticable, the monitoring wells will be removed by drilling out to the maximum depth practicable. Well bores will be filled with bentonite-cement slurry from the bottom of the well bore to 5 feet below the lowest beach scour elevation, and native sand used to fill the remainder of the well. The surface will be sealed in compliance with County of San Luis Obispo Public Health Services permit requirements.

3.1.9 Schedule

The study field activities for test holes and wells installation would require up to two to four weeks to complete. These field activities are anticipated to begin as early as mid February 2010, once all permits and access agreements are in place, and will be completed by mid-March 2010. All site work will be performed during daylight hours during non-holiday weekdays (Monday through Friday) for a maximum of 10 hours per day (approximately 7 a.m. to 5 p.m.). The workday may be shortened based on site conditions, including rising tides and wave run-up. All equipment will be removed from the beach before sunset of each day.

Test wells will be removed after up to three months after the installation field activities. Monitoring activities will continue for up to one year after the initial test wells removal.

3.1.10 Hazardous Spill Contingency Plan

The Hazardous Spill Contingency Plan has been included as Attachment B.

4.0 CONSISTENCY WITH PROVISIONS OF THE CALIFORNIA COASTAL ACT

The evaluation of the study with respect to the California Coastal Act is described in the subsections below.

4.1 Article 2 Public Access

Santa Rosa Creek Beach is contiguous with Moonstone Beach and Leffingwell Landing. Pedestrian access to the study site includes direct access from Shamel Park via two sets of staircases or from Moonstone Beach across the Santa Rosa Creek mouth during low tides or when the mouth is closed and a berm is present. Surface parking is located at the Shamel Park parking lot or Moonstone Beach south parking lot. The Shamel Park parking lot may be accessed from Windsor Boulevard, which provides 41 paved spaces, 2 paved handicap spaces, and 23 dirt spaces. The Moonstone Beach south parking lot may be accessed from York Street and Moonstone Beach Drive and provides 14 paved spaces and 2 paved handicap spaces.

During drilling, a small portion of the beach would be closed to recreational beachgoers. An exclusion area of about 50 feet around each drilling rig will be necessary for safety. This area would be demarcated with either caution tape, orange snow fencing, or other suitable material/barrier to deter the public from entering the construction site. Study activities would not interrupt lateral beach access. Drilling activities will occur for a maximum of two weeks and will take place during times and seasons of low beach use. Drilling would occur in March before the peak summer beach use season. Staging will occur in either a portion of the dirt parking lot or part of the paved parking lot at Shamel Park or at the Cambria Community Service District's maintenance yard. The minimal number of parking spaces required to store the exploration equipment, vehicles, trailers, and any supporting equipment will be used, which is expected to be 10 parking spaces or approximately 15 percent. Equipment will be moved to the staging area each weeknight and may be removed to the Cambria Community Service District's maintenance yard on the weekends. Neither of the Shamel Park dirt or paved public parking lots will be completely closed. Because the study would be of short duration and would occur during times of low beach use, impacts to public access would be less than significant.

4.2 Article 3 Recreation

The study site is on a beach area that that is easily accessed through Shamel Park for recreational purposes. The large beach area is contiguous with Moonstone Beach and Leffingwell Landing. Recreational activities that occur in the area include walking, bird watching, sun bathing, picnicking, surfing, kayaking, and swimming. Shamel County Park adjacent to the beach site is 6 acres and has a developed lawn area with picnic tables, barbecues, a swimming pool, restrooms, parking and direct beach access.

During drilling, a small portion of the beach would be closed to recreational beachgoers. An exclusion area of about 20 feet around each drilling rig will be necessary for safety. There also will be vehicles on the beach. In addition, the noise and disturbance of study activities may interfere with the enjoyment of beachgoers. Drilling activities will occur for a maximum of two weeks and will take place during times and seasons of low beach use. All site work will be performed during daylight hours during non-holiday weekdays. Drilling would occur in March before the peak summer beach use season. Because the study would be of short duration and would occur during times of low beach use, impacts to recreation would be insignificant.

4.3 Article 4 Marine Environment

The study site is located on the sand beach adjacent to the mouth of Santa Rosa Creek. The sand bar at the creek mouth blocks the flow of water from Santa Rosa Creek to the ocean most of the time. The Santa Rosa Creek mouth, thus, forms a lagoon that is highly used by waterbirds for foraging and resting.

The study site is located at the southern end of the Monterey Bay National Marine Sanctuary. The central California coast in general, and Monterey Bay National Marine Sanctuary in particular, is characterized by high marine biodiversity. The intertidal area seaward of the study site consists of sandy beach. Central California open coast sand beaches are very harsh environments because of high abrasion levels and the lack of firm substrate for attachment (Oakden 1999). Sandy beach biological communities exhibit low species diversity with large numbers of individuals of each species, which is characteristic of faunal assemblages in harsh environments. Most of the species characteristic of this sand beach environment are highly mobile and live buried in the sand much of the time. Central California beaches show marked patterns of zonation related to the amount of tidal inundation. The characteristic animals of the high intertidal zone are talitrid amphipod crustaceans commonly known as beach hoppers. Beach wrack in this zone also supports insects, such as beetles and flies. The dominant species of the mid-intertidal zone is the cirrolanid isopod, *Excirolana*. The swash zone, where wave breaking and runoff often occurs, is subjected to a high degree of water movement. The dominant species in the swash zone is the sand crab, *Emerita analoga*. The low intertidal zone is exposed to the air only on the lowest tides. The low intertidal supports the most diverse species assemblage of sandy intertidal beaches. Characteristic low intertidal species include Pismo clams (*Tivella stultorum*), the mole crab *Blepharipoda occidentalis*, the bean clam *Donax gouldi*, moon snails (*Polinices lewisi*) and the polychaete worm *Euzonus* spp. (Oakden 1999).

As previously discussed, the subtidal habitat adjacent to the study site is predominantly sedimentary, and interspersed with isolated rocky features. The epifauna of the shallower sedimentary habitats typically includes several species of macro-invertebrates, including sand stars (*Astropecten* spp.), sand dollars (*Dendraster excentricus*), and slender crabs (*Cancer gracilis*), while the infauna is usually dominated by polychaete worms and mollusks. The rocky substrata tend to support a generally more diverse epibiota comprised of macrophytic algae, urchins, sea stars, and cnidarians (anemones and solitary corals). In addition to invertebrate marine fauna, fish, including rockfish, surfperch, flatfish, and several marine mammals, are known to occur within water adjacent to the study site. Impacts to native wildlife and vegetation would be less than significant.

In accordance with the 1996 amendments to the Magnuson-Stevens Fishery Management and Conservation Act, an assessment of Essential Fish Habitat (EFH) was conducted for the proposed Study. The Study is located within an area designated as EFH for three Fishery Management Plans: Coastal Pelagic Species Fishery Management Plan, Pacific Salmon fishery Management Plan, and Pacific Coast Groundfish Fishery Management Plan. Many of the 89 species managed under these plans would be expected to occur offshore of the study area. Study activities would occur above the mean high tide line and would not impact Essential Fish Habitat.

The California grunion (*Leuresthes tenuis*) is a nearshore fish that lays its eggs in the high intertidal zone between March and August. During the grunion spawning season, eggs and developing

embryos are buried in the sand to incubate between the highest tides of each month at the full and new moon (Martin 2006). Grunion are rare north of Point Conception, but have a slight potential to spawn on the beach near Santa Rosa Creek. The study is on the upper beach, an area highly used by beachgoers. The site is not a major migration corridor for wildlife. There is a slight chance that grunion could spawn on the site. Although most grunion spawning is in southern California, a few grunion runs north of Pt. Conception occur in most years (K. Martin, Pepperdine University, personal communication). Grunion runs at the northern extent of their range usually do not start early in the season. For example, in 2009, grunion were not observed north of Pt. Conception until June; but grunion runs along the central coast can start as early as May. Because study construction would occur in March, no impacts to grunion are expected.

Federal endangered tidewater goby, and federal threatened south-central California coast steelhead and California red-legged frogs occur in Santa Rosa Creek. The proposed study would have no effect on the creek and, therefore, would have no effect on these species. Unless the creek is flowing at a rate greater than the estimated test flow, hydraulic testing will not be conducted from wells within 50 feet of the lagoon. For testing proposed during low lagoon flow periods, preliminary hydraulic modeling will be performed to confirm that the lagoon will be outside the cone of influence of the test well. Therefore, the proposed study will not result in a drawdown of water in Santa Rosa Creek.

A variety of birds occur in the study area. Bird species seen on the study site itself during a November 5, 2009, field visit included American crows (*Corvus brachyrhynchos*), western gulls (*Larus occidentalis*), Heermann's gulls (*L.heermanni*), ring billed gulls (*L.delawarensis*), Say's phoebe (*Sayornis saya*), black phoebe (*S.nigricans*), Brewer's blackbird (*Euphagus cyanocephalus*) and red-winged blackbird (*Agelaius phoeniceus*). These birds were mostly associated with wrack and debris on the Study site. Large numbers of birds were observed congregating in the Santa Rosa Creek lagoon adjacent to the Study site. Birds observed in the lagoon during the November site visit included great egret (*Casmerodius albus*), western gulls, Heermann's gulls, ring billed gulls, snowy egrets (*Egretta thula*), California brown pelicans (*Pelecanus occidentalis*), killdeer (*Charadrius vociferous*) and a peregrine falcon (*Falco peregrinus*). The intertidal area seaward of the study site is used for foraging by gulls and shorebirds. Shorebirds observed during the November visit included whimbrel (*Numenius pheopus*), long-billed curlew (*N. americanus*), and marbled godwit (*Limosa fedoa*). Birds that use the upper beach would be disturbed temporarily by study activities, but likely would just move to other areas of the beach where people were not working.

The nearest Critical Habitat is CA-77 (San Simeon), over a mile to the north. The study site at Santa Rosa Creek Beach is not designated as snowy plover critical habitat. The study site does not support breeding or nesting habitat for the snowy plover and does not have nesting snowy plovers. Moonstone Beach, Santa Rosa Creek State Beach Park, and Shamel County Beach Park are heavily used year round by people. The beach below Moonstone Beach Drive is heavily used by visiting tourists and their pets. Surfers access the beach for daily surfing activities from Shamel County Park parking lot. Nearby homes immediately adjacent to beach and coastal strand habitats have local cats preying on birds within the Santa Rosa Creek riverine and freshwater marsh habitats as well as the beach. Predators on the beach also are a threat. Native predators, such as skunks, crows, ravens, and shrikes, are joined by exotic predators, such as the

non-native red fox to further pressure the birds. Beach fires and fireworks disturb the nesting birds, and kites flown above look like predators. It is not known if snowy plovers use the coastal strand area of the study site for any winter activities, but it is unlikely due to the continued year-round disturbances.

In southern California, a large percentage of wintering plovers observed are not banded, which suggests that many were individuals from other populations on the west coast (Page et al. 1991). Individuals banded in Oregon and northern California have been sighted along the coast of central and southern California (Page et al. 1995, Powell et al. 1995). In addition, some of the plovers that nested in parts of California remain there over the winter months. Sites used by migrating and wintering plovers changed according to tides and time of year (Powell 1996). Some of these sites received heavy human use during the non-breeding months with seemingly little effect on snowy plovers (Powell 1996).

Due to the existing disturbance from people and dogs on the beach in the areas where the study activities are proposed, the proposed action is not expected to affect snowy plovers. If any snowy plovers were to occur on Santa Rosa Creek Beach, they most likely would forage in the intertidal or along the shores of Santa Rosa Creek lagoon rather than within the study site above the mean high tide line. Therefore, it is unlikely that the proposed study would have any effects on snowy plover. A qualified biologist who knows snowy plover breeding, foraging, and roosting ecology will be present during study activities on the beach.

Federal threatened southern sea otters may occur in the ocean offshore of the study site but would not be present on the study site itself. Noise and activities on the upper beach would not disturb sea otters offshore. Impacts of the proposed study to sea otters would be insignificant.

The proposed study will occur entirely on the upper beach, which is sparsely vegetated with a disturbed Central Fore dune plant community. Although dune habitats may be sensitive, the vegetation on the study site has very low diversity and one of the dominants, sea rocket, is a non-native species. A small amount of a native plant, beach-bur, may be impacted by study activities. The vegetation is routinely subjected to trampling by beach goers. To the extent possible, study activities would avoid disturbing vegetation. However, it is likely that some of this vegetation will be impacted by work and vehicles on the beach. Temporary disturbance of a limited amount of low diversity dune vegetation would be an insignificant impact.

4.4 Article 5 Land Resources

The proposed study is located within the Cambria Urban Area (County of San Luis Obispo 2008). Cambria is an unincorporated community located 20 miles north of Morro Bay and 23 miles south of the Monterey County line. Cambria is noted for its outstanding natural environment including native forests of Monterey pine, creekside areas and a scenic coastline with beautiful beaches. The surrounding areas are devoted to agricultural uses, primarily grazing, which contributes to the unique pastoral setting of Cambria. Cambria is an attractive center for retired persons and tourists visiting the central coast.

The state-owned flood plain and riparian vegetation at the mouth of Santa Rosa Creek west of Highway 1 as well as the shoreline are designated as Open Space (County of San Luis Obispo

2008). Santa Rosa State Parks personnel have been contacted regarding the proposed Study by the Cambria Community Service District. Coordination shall continue between the agencies to determine if there are any potential concerns regarding the Study. The Study shall commence only after State Parks has provided approval of the Study activities and entry to the State Park. The CCC shall be contacted and provided a copy of this correspondence. Shamel County Park, adjacent to the study area, is designated for Recreation.

The study site is characterized by Central Fore-dune vegetation with highly disturbed Dune Scrub habitat immediately to the east of the site and with areas of Freshwater Marsh and Willow Woodland east of the Santa Rosa River. Typically, Fore-dune habitat is dominated by perennial grasses and low, often succulent, perennial herbs and subshrubs (approximately 4 inches in height) (Holland 1986). This habitat is similar to Active Coastal Dune habitat, but with less wind and/or a smaller supply of sand and/or more available groundwater. The relatively favorable conditions allow for the establishment of plants which reduce the amount of blowing sand and partially stabilize the dunes. Drainage is rapid on Fore-dune habitat, but the deeper zones can be relatively moist. Both Southern and Central Fore-dune habitats are very similar to Northern Fore-dune habitat, but are drier, slightly warmer, and probably received less strong or persistent onshore wind (Holland 1986).

The vegetation onsite during a November 2009 site visit was dominated by native beach-bur (*Ambrosia chamissonis*) and non-native sea rocket (*Cakile maritima*). Sea rocket tended to be growing in higher concentrations along the periphery of the Fore-dune habitat, as indicated on the habitat map (Figure 3). This annual species appeared to be more tolerant of seawater inundation than the perennial beach-bur. Beach-bur was most abundant on hillocks within the interior of the site as indicated on the habitat map where waves would only affect the vegetation during extreme high-tide storm events in winter when huge quantities of sand may be removed from the beach. Overall vegetative cover on the beach was scattered, at approximately 20 percent. Other less abundant species found on the study site within the Fore-dune habitat included native beach saltbush (*Atriplex leucophylla*), non-native sea-fig (*Carpobrotus chilensis*), non-native shortpod mustard (*Hirschfeldia incana*), non-native dock (*Rumex conglomeratus*), and non-native New Zealand spinach (*Tetragonia tetragonioides*).

The site contains marginally suitable coastal dune habitat for two special-status plant species: compact cobwebby thistle (*Cirsium occidentale* var. *compactum*) and Kellogg's horkelia (*Horkelia cuneata* ssp. *sericea*). However, because these perennial herb species would have been conspicuous at the time of the field survey and were not observed, these two species are presumed absent from the site.

Because study activities would occur on a sparsely vegetated upper beach that is frequented by large numbers of beach goers, substantial effects on native fish or wildlife or vegetation would not occur. Birds that use the upper beach would be disturbed temporarily by study activities, but likely would just move to other areas of the beach where people were not working. A small amount of a native plant, beach-bur may be impacted by study activities. Impacts to native wildlife and vegetation would be less than significant. Study activities would occur above the mean high tide line and would not impact Essential Fish Habitat.

The proposed study involves temporary information gathering activities. The study will not change the uses of Santa Rosa Creek Beach or Shamel Park. Even during the active well drilling, the beach and park will remain available to recreational users and lateral access along the beach will not be interrupted. The proposed study would have no impact on land use.

4.5 Article 6 Development

No new residential, commercial, or industrial development is proposed. No new or expanded public works facilities are proposed. No development of sewage treatment plant is proposed. California Coastal Commission staff has previously indicated that the temporary installation of test wells and monitoring wells is into the beach areas at Santa Rosa Creek is considered “development” and therefore is addressed in this CCD. The scenic and visual qualities of coastal areas have been considered and protected as a resource of public importance. The installation activities will be of short duration up to two weeks and consist of the minimal number of construction equipment necessary to complete the task. Because the wellheads will be out of visual sight, once the equipment is removed, the Study site will be returned to pre-study conditions. Equipment will be removed at the end of every day from the beach and lateral public access will be available at all times during study implementation. Once the initial installation has been completed, the scenic and visual quality will be restored. The scenic and visual quality will be disrupted for a short period when the test wells and monitoring wells are removed, but will immediately be returned to pre-study conditions. As stated earlier, coastal public access will be maintained during and after the Study implementation. No construction activities are proposed to occur in Shamel Park outside of the beach area.

Measures to minimize study impacts have been incorporated as part of the proposed action. The geotechnical investigations does not place life or property in areas of high geologic, flood, and fire hazard risks. The proposed action does not affect the stability and structural integrity, and neither creates nor contributes significantly to erosion, geologic instability, or destruction of the site or surrounding area or in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs.

The proposed action will be consistent with requirements imposed by an air pollution control district or the State Air Resources Board. The proposed study located within the South Central Coast Air Basin (SCCAB), which includes the Counties of San Luis Obispo, Santa Barbara, and Ventura. San Luis Obispo County is in non-attainment for State ozone and respirable particulate matter (PM₁₀) and in attainment or unclassified for all other State and federal standards.

The drilling rig to be used has been modified to meet EPA Tier 3 Non-road Diesel Standards. Additionally, the proposed study will use a mid-sized four wheel drive truck to transport soil samples and be able to transport staff off the beach in case of emergency. Test wells will utilize a submersible pump capability of pumping 100 to 150 gallons per minute from each test well. The electric test pumps will be electric and rated between 15 to 20 horsepower and powered with a generator. The generator will be capable of producing up to three-phase, 220 volt power to the test pump.

The proposed study would not be large enough to create an air quality change to significantly interfere with the Clean Air Plan. The proposed study only will generate approximately 6 pounds per day of ROG and NO_x, combined. The Air District's threshold for ozone precursors is 137 pounds per day and the proposed study does not meet the 0.75 tons/acre/month of construction activity screening level for fugitive dust. Ambient pollutant impacts would not be expected to exceed significance levels. These emissions would be temporary and, given the expected rate of drilling, would not expose individual receptors for extended periods. During normal operation of the study, no direct emissions are expected to result. There may be some odors associated with the use of diesel equipment during the drilling phase. These odors would be temporary. There are residences adjacent to segments of the study. However, the rate of drilling would ensure that these residences are minimally affected by odors during the drilling. A less than significant impact would occur.

4.6 Article 7 Industrial Development

This article does not apply to the Cambria Geotechnical and Hydrogeologic Investigations Study.

4.7 Previous Coastal Commission Recommendations

The proposed geotechnical investigation also is consistent with the recommendation of Coastal Commissioners during the hearing on December 13, 2007, where the Cambria Community Services District was asked to consider locations other than San Simeon for geotechnical investigation for the proposed future desalination project. The proposed geotechnical investigation at Santa Rosa Creek Beach avoids many of the issues related to the previous proposed investigation at San Simeon, including:

- **No western snowy plover critical habitat or nesting** – The project site at Santa Rosa Creek Beach is not designated as snowy plover critical habitat and is not a snowy plover nesting site. The San Simeon site is designated Critical Habitat and is a nesting area for the federal threatened western snowy plover.
- **No marine mammal haul out** –No regular marine mammal haul out sites are located near Santa Rosa Creek Beach. Northern elephant seals haul out near the San Simeon site.
- **No seismic reflection survey** –The geotechnical investigation at Santa Rosa Beach does not include a seismic reflection survey. The proposed investigation involves only swimmers with hand held or similar devices logging gps coordinates within coastal waters. The previously proposed investigation at San Simeon Beach included a seismic reflection survey with potential noise and pressure impacts of the mini-sparker on marine mammals and other marine life.
- **No construction of an access ramp or use of a crane for vehicles to access the beach** –The Santa Rosa Creek site already has a vehicle access ramp that can be used for the investigation. The geotechnical investigation proposed at San Simeon would have required either the construction of an access ramp or the use of a crane to get vehicles onto the beach.

- **Minimal public access issues** – The geotechnical investigation at Santa Rosa Creek Beach would use only 10 of the 66 parking spaces at Shamel Park adjacent to Santa Rosa Beach or approximately 15 percent of the available public parking. In addition, the investigation at Santa Rosa Creek Beach would not interfere in any way with the most convenient access to Santa Rosa Beach – the stairway from Shamel Park to the beach. For equipment staging, the proposed study at San Simeon Beach would have used 10 parking spaces, which is half of the public parking area. The investigation at San Simeon also would have interfered to some extent with beach access.
- **No degradation of views from Scenic Highway 1** – Santa Rosa Creek Beach is not visible from Highway 1. For the previously proposed geotechnical investigation at San Simeon Beach, equipment would be visible from Scenic Highway 1.
- **No land use designation issues** –The Santa Rosa Beach site is within the Cambria Urban Area Land Use designation. The San Simeon site is in the area designated as Rural Area Land Use.

5.0 Other Environmental Considerations

The proposed geotechnical investigation is consistent with Cambria Urban Area Planning Area Standards 4.D.(6) Desalination Standards in the County, San Luis Obispo Land Use and Circulation Elements of the San Luis Obispo County General Plan: Cambria and San Simeon Acres Portions Updated November 6, 2007. The referenced standard states desalination facilities must:

“Use, where feasible, sub-surface feedwater intakes (e.g. beach wells) instead of open pipelines from the ocean, where they will not cause significant adverse impacts to either beach topography or potable groundwater supplies..”

The 2003 Coastal Commission report titled “Seawater Desalination and the California Coastal Act” encouraged subsurface intakes as a less environmentally damaging alternative to open ocean intakes. The proposed geotechnical investigation is necessary to determine whether sub-surface feedwater intakes are a feasible alternative for a proposed Cambria desalination facility. The proposed geotechnical investigation addresses the concern of the California Coastal Commission about the impacts of open ocean intakes on marine life from the entrainment and impingement of marine organisms in the intake by utilizing an alternative method.

In summary, the revised geotechnical investigation at Santa Rosa Beach avoids many of the issues identified for the previously proposed geotechnical investigation at San Simeon. The impacts at Santa Rosa Beach are limited to the temporary disturbance of vehicles and equipment working on a small portion of the beach for a maximum of two weeks on weekdays during the season of low visitor beach use.

6.0 Similar Projects That Received CCC Approval

The Municipal Water District of Orange County received a Coastal Development Permit (Application No. 5-05-417, Approved with Conditions on January 11, 2006) for a similar project

involving a slant well subsurface intake system for a proposed ocean desalination project at Doheny State Beach in Dana Point, Orange County, California. The City of Long Beach Water Department received a Coastal Development Permit (Application No. 5-07-94, Approved with Conditions on September 5, 2007) for a similar project involving the installation and removal of a temporary demonstration seawater intake and discharge system on Bixby Park Public Beach in Long Beach, Los Angeles County, California.

7.0 References

County of San Luis Obispo. 2008. The Land Use and Circulation Elements of the San Luis Obispo County General Plan: North Coast.

Holland, Robert F. 1986. Preliminary Descriptions of the Terrestrial Natural Communities of California. State of California, The Resources Agency, Department of Fish and Game, Natural Heritage Division, Sacramento, California.

Martin, K. 2006. Ocean Outlets and Grunion in the County of Orange.

Oakden, J. 1999. Sandy Beaches in Monterey Bay National Marine Sanctuary Site Characterization.

Page, G. W., L. E. Stenzel, W. D. Shuford, and C. R Bruce. 1991. Distribution and abundance of the snowy plover on its western North American breeding grounds. *J. Field Ornithol.* 62: 245-255.

Page, G. W., M. A. Stern, and P. W. C. Paton. 1995. Differences in wintering areas of snowy plovers from inland breeding sites in western North American. *Condor* 97:258-262.

Powell, A. N., C. L. Collier, and B. Peterson. 1995. The Status of western snowy plovers (*Charadrius alexandrinus nivosus*) in San Diego County, 1995. Report to U.S. Fish and Wildlife Service, Portland OR, and CA DFG, Sacramento, CA.

Powell, A. N. 1996. Western snowy plover use of State-managed lands in southern California, 1995. Calif. Dep. Fish and Game, Wildl. Manage. Div., Bird and Mammal Conservation Program Rep 96-03, Sacramento, CA. 14 pp.

U.S. Congress. 2000. Water Resources Development Act of 1992. U.S. Congress, December 29, 2009.



Legend

 Project Location

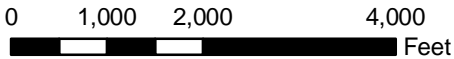


Figure 1
USACE Cambria Geotechnical
Project Vicinity Map





Legend

- Approximate test hole location
- Approximate test well location
- Above Mean Higher High Water Line
- Santa Rosa River Bank - High Flow Year

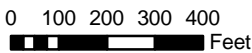






Figure 2
 USACE Cambria Geotechnical
 Project Location Map





Legend

-  Above Mean Higher High Water Line
-  Santa Rosa River Bank - High Flow Year
-  Area Dominated by Beach-Bur
-  Area Dominated by Sea Rocket

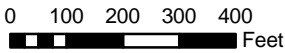


Figure 3
 USACE Cambria Geotechnical Feasibility Study Habitat Map



*Image Source: Terraserver, July 2007

ATTACHMENT A – SITE PHOTOGRAPHS



Photo 1: Photo taken from Shamel Park main staircase looking downcoast at a high tide of 3.7 feet (November 5, 2009).



Photo 2: Photo taken from Shamel Park main staircase looking downcoast at a high tide of 6.6 feet (December 3, 2009).

ATTACHMENT A – SITE PHOTOGRAPHS



Photo 3: Photo taken from the beach in front of the Shamel Park emergency vehicle access ramp looking upcoast (November 5, 2009). Santa Rosa Creek may be seen to the far right.



Photo 4: Photo taken from the top of the Shamel Park emergency vehicle access ramp looking upcoast (December 3, 2009). Santa Rosa Creek is on the right.

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Photo 5: Photo taken from the beach looking landward at the Shamel Park emergency vehicle access ramp. Santa Rosa Creek is to the left.



Photo 6: Photo taken from the top of the Shamel Park emergency vehicle access ramp looking toward dirt parking lot (seen in the distance to the left) and the dirt path (on right) equipment may use to access the ramp to the beach.

ATTACHMENT A – SITE PHOTOGRAPHS



Photo 7: Photo taken from the platform upcoast of the Santa Rosa Creek mouth looking downcoast at the Study site (November 5, 2009).



Photo 8: Photo taken from the Study site near the Santa Rosa Creek mouth looking upcoast at the platform identified in Photo 7 (located at top of bluff) next to parking lot at York Street and Moonstone Beach Drive.

HAZARDOUS SPILL CONTINGENCY PLAN

1.0 INTRODUCTION

This Hazardous Spill Contingency Plan (HSCP) has been prepared in support of the proposed U.S. Army Corps of Engineers (Corps) geotechnical and hydrogeologic sampling feasibility investigation. The purpose of this HSCP is to present the procedures and protocols that will be utilized in the event of a release of hazardous materials, either onshore or in the marine environment resulting from geotechnical and hydrogeologic investigation activities.

1.1 POTENTIAL SPILL SOURCES

Potential sources of spills from the geotechnical and hydrogeologic investigation activities include the following:

- Drilling fluid (“drilling mud”) from rotary drilling activities.
- Soil cuttings that may contain drilling muds.
- Petroleum products from vehicles and equipment.

1.1.1 Drilling Fluids

Drilling fluid (“drilling mud”) is a broad term to include any type of substance used in the rotary drilling operation to facilitate the removal of cuttings from the borehole, seal the borehole wall and cool, clean and lubricate the drill bit. Substances commonly used are water, bentonite clay, and a host of synthetic polymers as lubricants. Whenever possible, drilling techniques other than rotary drilling will be used (i.e., direct push, sonic advancement) to avoid the use of drilling fluids on the project site.

When used, every effort will be made to use drilling fluids that will have the least impact on the environment, if released. Material Data Safety Sheets (MSDSs) will be reviewed prior to use and will be on-site during the operation. Drilling fluids will be contained at all times. Plastic sheeting (e.g., Visqueen) will be placed on the ground around the advancing auger stem and a berm will be created around the hole to contain drilling mud and tailings as they are produced from the hole. Drilling fluids will be removed from the hole area immediately and contained in an approved container for transport and disposal.

1.1.2 Soil Cuttings Containing Drilling Fluids

Soil cuttings that contain drilling mud will be treated as drilling mud and disposed of accordingly. Soil cuttings from rotary drilling operations will be contained at all times. Plastic sheeting (e.g., Visqueen) will be placed on the ground around the advancing auger stem and a berm will be created around the hole to contain soil cuttings as they are produced from the hole.

Soil cuttings will be removed from the hole area immediately and contained in an approved container for transport and disposal.

1.1.3 Petroleum Products from Vehicles and Equipment

The use of conventional construction equipment during investigative activities (excavators, backhoes, dozers, loaders, generators, air compressors, welding machines, etc.) presents the potential for specific spill scenarios. These include the leakage of fuel, motor oil, or hydraulic fluid during operation, refueling, and equipment maintenance. To prevent equipment leakage during operation, all equipment used at the site will be in good working condition and be inspected daily for leaks. Any equipment observed to be leaking while onsite will immediately be relocated to a designated equipment staging and refueling area for repair.

All equipment refueling will be conducted in a manner best suitable to minimize the potential for fuel spillage. In addition, equipment fueling and maintenance will take place at the equipment staging areas described in Section 2.0 (Project Description). In the event of a spill, the contractor will take the appropriate action to contain and clean up the spill.

1.2 SPILL RESPONSE TEAM

An onsite spill response team will be identified and available to handle spills during the field activities. The onsite response team is responsible for reporting containment and clean up of any small spills using onsite equipment and procedures. The onsite team will be supervised by the Onsite Project Manager (or other appointed supervisor) and consists of any and all qualified contractor personnel working onsite at the time of the spill.

Although not anticipated, if a release occurs that is beyond the response capabilities of the designated onsite, primary response team, Philips Service Corporation, Inc. (PSC) will provide additional assistance in the mechanical containment and recovery of terrestrial oil spills. Table 1 lists the oil spill response organization that if necessary, will be used to provide secondary response services throughout the duration of the project.

Table 1. Emergency Oil Spill Response Contractors (Secondary Responders)

Role	Contact Information
Terrestrial Emergency Response	Philips Services Corporation (PSC) 62117 Railroad Street San Ardo, CA 93450 (831) 627-2595 (805) 235-1060

1.3 ONSITE RESPONSE EQUIPMENT

The onsite spill response team will have access to an appropriate quantity of sorbent pads, sorbent boom, and containment boom, which will be maintained onsite during investigative activities. In the event of a spill, the Project Manager will immediately cease project operations in order to initiate clean up. Table 2 lists the minimum onsite spill response equipment that will be maintained onsite for emergency response of miscellaneous spills.

Table 2. Onsite Spill Response Equipment Inventory

Quantity	Equipment Type
1-10	Shovels and Hand Digging Equipment
1	500-foot Absorbent Boom
200	3M Type 156 Sorbent Pads
100	Plastic Storage Bags and Containers

1.4 NOTIFICATION

An important step in the response procedure is notification to others of an incident. Notification is essential to activate the response organizations, alert company management, obtain assistance and cooperation of agencies, mobilize resources, and comply with local, state, and federal regulations. The order of notification is based on the premise that those parties who can render assistance in controlling or minimizing the impacts of an incident be notified before those that are remote from the incident. Table 3 presents the Emergency Agency Notification Matrix, and Table 4 presents the Emergency Notification List for Project Personnel. The notification process encompasses the following categories:

- Emergency Agency notification
- Company notification/onsite spill response team activation
- Cleanup contractors (if required)
- Notification of other interested parties
- Periodic progress updates and reports (if necessary)

Table 3. Emergency Agency Notification Matrix

Type of Emergency	Agencies to be Notified	Telephone	Notification Criteria	Notification Time Frame	Information to Report
Oil Spill to Land or Marine Waters	California Office of Emergency Services	(800) 852-7550	All spills to land or water	Immediately	1. Location of release or threatened release 2. Qty released 3. Type of oil 4. Your name & phone number
	National Response Center	(800) 424-8802			
	USCG Morro Bay Station	(805) 772-2167			
	State Lands Commission	(562) 499-6312			
	California Department of Fish and Game/ OSPR	(916) 445-9338			
	California Coastal Commission	(415) 904-5285			
	Oiled Wildlife Care Network	(530) 752-4167			
Marine Mammal Center - Morro Bay Rescue Line	(415) 289-7325				
Medical Emergencies	Fire Department/ Ambulance	911	Medical assistance and/or transport required	ASAP	1. Type of injury 2. Location 3. Condition 4. Action taken 5. No. of victims
	CalOSHA	(415) 737-2932		As required	

USCG U.S. Coast Guard
 OSPR Office of Oil Spill Prevention and Response
 CalOSHA California Occupational Safety and Health Administration

Table 4. Emergency Contact List – Project Personnel

	Name	Number	Mobile
U.S. Army, Corps of Engineers, Los Angeles District 915 Whilshire Blvd. Los Angeles, CA 90017	Thomas Keeney Senior Project Ecologist	Office: (213) 452-3875	(562) 254-1701

Based on the spill trajectory analysis, if the spill is a threat to the shoreline, the appropriate fire department should also be contacted. This would not normally be an immediate notification. Table 5 presents the general procedures to following ion the unlikely event of a spill.

Table 5. Information Checklist

Name of reporter. Facility name and location Date and time of the spill
Cause (if known -- don't speculate) and location of the spill Estimate of the volume of oil spilled and the volume at immediate risk of spillage Material spilled (e.g., crude oil), and any inhalation hazards or explosive vapor hazards, if known Prevailing sea conditions: <ul style="list-style-type: none">• Wave height• Size and appearance of slick• Direction of slick movement• Speed of movement, if known Prevailing weather conditions: <ul style="list-style-type: none">• Wind speed• Wind direction• Air temperature Measures taken or planned by personnel on scene <ul style="list-style-type: none">• For containment• For cleanup Current condition of the facility Any casualties?

NOTE: When making reports, record the agency, name of person contacted, and the date and time of notification. Reporting of a spill shall NOT be delayed solely to gather all the information noted above.

The Lempert-Keene Seastrand Oil Spill Prevention and Response Act (SB 2040) requires notification of the California Office of Emergency Services when oil spills occur or threaten to occur from facilities, vessels, or pipelines into California marine waters. The California Code of Regulations implementing SB 2040 requires that the specific information shown in Table 5 be given to the agencies when making notifications.

All actions, including agency notification, should be recorded on the Event Log. A regulatory agency address directory is provided in Table 6.

Essential agency notifications are further assured by the California Office of Emergency Services and the National Response Center, since they will notify related state and federal agencies.

If a spill impacts navigable waters, notification of the National Response Center is mandatory and normally results in simultaneous notification of the U.S. Coast Guard. However, it is recommended that a call be made to the local U.S. Coast Guard office in Morro Bay at (805) 772-2167.

Table 6. Addresses of Regulatory Agencies

NATIONAL RESPONSE CENTER U.S. Coast Guard Headquarters 2100 Second Street SW Washington, D.C. 20593	CALIFORNIA DEPARTMENT OF FISH AND GAME Office of Spill Prevention and Response (OSPR) 1700 K Street Sacramento, CA 95814
U.S. COAST GUARD, Morro Bay Station 1279 Embarcadero Morro Bay, CA 93442	CALIFORNIA OFFICE OF EMERGENCY SERVICES 3650 Schriever Avenue Mather, CA 95655
U.S. DEPARTMENT OF TRANSPORTATION 111 Grand Avenue, P.O. Box 23660 Oakland, CA 94623	CALIFORNIA DIVISION OF SAFETY AND HEALTH 1655 Mesa Verde Avenue, Room 150 Ventura, CA 93003
NATIONAL MARINE FISHERIES SERVICE 650 Capital Mall Sacramento, CA 95814	CALIFORNIA STATE LANDS COMMISSION 200 Oceangate, Suite 900 Long Beach, CA 90802
CALIFORNIA COASTAL COMMISSION 45 Fremont Street, Suite 2000 San Francisco, CA 94105	

1.5 MINOR SPILL RESPONSE PROCEDURES

This scenario consists of minor spillage of oil or oily water (less than 5 barrels) from geotechnical and hydrogeologic field activities at the Project Site. Procedures for responding to onshore spills are presented in Table 7, and procedure for responding to marine spills are presented in Table 8. Names and contact information of the Project Superintendent and Project Manager shall be identified and provided prior to initiation of Project activities.

Table 7. Oil Spill Response Procedures

Responsible Person	Action
Site Foreman - Contractor	<ul style="list-style-type: none"> • Assess the spill size and type of material spilled. • Take action to contain the spill and prevent further spillage. • Inform the Project Superintendent as soon as possible as to the source of the spill, type of material spilled and status of control operations. • Maintain surveillance of source. • Assist the onsite response team in implementing clean up procedures including deployment of the absorbent and/or containment boom and sorbent pads and proper storage and disposal of oily debris and sorbent pads. • Account for all personnel and ensure their safety. • Determine if there is a threat of fire or explosion. • If a threat of fire or explosion exists, suspend all control and/or response operations until the threat is eliminated. • Assess the spill situation to determine the status of response operations, estimate spill volume, estimate speed and direction of oil slick movement and determine resource needs. • Notify the Project Manager.

Table 8. Minor Marine Oil Spill Response Procedures

Responsible Person	Action
Site Foreman - Contractor	<ul style="list-style-type: none"> • Assess the spill size and type of material spilled. • Take action to contain the spill and prevent further spillage. • Inform the Project Superintendent as soon as possible as to the source of the spill, type of material spilled and status of control operations. • Maintain surveillance of source and oil slick. • Assist the onsite response team in implementing clean up procedures including deployment of the absorbent and/or containment boom and sorbent pads and proper storage and disposal of oily debris and sorbent pads. • Account for all personnel and ensure their safety. • Determine if there is a threat of fire or explosion. • If a threat of fire or explosion exists, suspend all control and/or response operations until the threat is eliminated. • Assess the spill situation to determine the status of response operations, estimate spill volume, estimate speed and direction of oil slick movement and determine resource needs. • Notify the Project Manager.
Project Manager – US Army, Corps of Engineers	<ul style="list-style-type: none"> • Mobilize the onsite oil spill response team. • Notify appropriate agencies including: <ul style="list-style-type: none"> – National Response Center (800) 424-8802 – California Office of Emergency Services (800) 852-7550 – State Lands Commission (562) 499-6312 – California Coastal Commission (415) 904-5285 – California Department of Fish and Game/OSPR (916) 445-9338 – U.S. Coast Guard Morro Bay Station (805) 772-2167 – Oil Wildlife Care Network (530) 752-4167 • Supervise response and clean up operations. • File written reports to appropriate agencies.