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September 30, 2011

Mr. Thomas Keeney
Environmental Resources Branch
U.S. Army Corps of Engineers
P.O. Box 532711
Los Angeles, CA 90053-2325

VIA EMAIL: Thomas.W.Keeney@usace.army.mil

RE: Requested Consistency Determination for Geotechnical and Hydrogeologic Feasibility Investigation Study in Cambria, San Luis Obispo County

Dear Mr. Keeney:

Thank you for your submittal of the above-referenced consistency determination request (CD Request). We received the document on September 26, 2011. The proposed project, on and near Santa Rosa State Beach and Shamel County Park in Cambria, San Luis Obispo County, would conduct geophysical and geotechnical tests and surveys to determine whether the location is suitable for subsurface intake and discharge structures that may be proposed at a later date. We also received two associated documents as part of the submittal – the September 2011 Final Environmental Assessment (Final EA) and the August 25, 2011 Initial Study/ Mitigated Negative Declaration (IS/MND) – which provide additional information in support of the CD Request. We understand the IS/MND might also serve as the CEQA compliance document needed for a Right-of-Entry permit from the California Department of Parks and Recreation (State Parks).

We have determined that the CD Request is not yet complete, for the reasons provided below. Accordingly, the Commission's 60-day review period under the Coastal Zone Management Act (CZMA) has not commenced and will commence only after we receive the missing necessary data and information, pursuant to the CZMA implementing regulations. See 15 C.F.R. § 930 *et seq.* As specifically noted in 15 C.F.R. § 930.41:

“The 60-day review period begins when the State agency receives the consistency determination and supporting information required by § 930.39(a). If the information required by § 930.39(a) is not included with the determination, the State agency shall notify the Federal agency in writing within 14 days of receiving the determination and supporting information that the 60-day review period has not begun, identify missing information required by § 930.39(a), and that the 60-day review period will begin when the missing information is received by the State agency.”

The above referenced 15 C.F.R. § 930.39(a) states, in relevant part:

“The consistency determination shall also include a detailed description of the activity, its associated facilities, and their coastal effects, and comprehensive data and information sufficient to support the Federal agency’s consistency statement. The amount of detail in the evaluation of the enforceable policies, activity description and supporting information shall be commensurate with the expected coastal effects of the activity.”

REQUIRED ADDITIONAL INFORMATION AND ANALYSES

Pursuant to the relevant CZMA requirements, we have identified below the information needed to complete our review to determine whether the proposed activities will be conducted in a manner consistent to the maximum extent practicable with the enforceable policies of the California Coastal Management Program (CCMP). Pursuant to 15 C.F.R. 930.39(a), our information requests are commensurate with the proposal’s expected coastal effects, due to the proposed activities being immediately adjacent to sensitive coastal waters and habitat for listed sensitive species, within a National Marine Sanctuary and State Marine Conservation Area, and adjacent to a State Natural Preserve.

Although the CD Request states that the proposed project is consistent with applicable CCMP provisions, in many sections it does not provide documentation or analyses necessary to support these assertions. Additionally, the CD Request and its supporting documents inconsistently describe several aspects of the proposed activities or describe them incompletely, which does not allow us to determine whether the proposal is consistent with the CCMP. Several of our requests are meant to clarify the above-mentioned inconsistencies or incomplete descriptions in the CD Request and associated submittals. We are happy to assist and answer any questions you may have about providing the needed information or about the review process.

Please let us know if you disagree with our determination that additional information is needed or that the review period has not started. If so, and if you decline to provide the necessary information identified below, we may prepare a “lack of information” objection to the proposed project and schedule a hearing before the Coastal Commission within 75 days of the September 26th receipt. In that case, and by this letter, we are requesting a 15-day extension of the review period that is to be granted by the Federal agency, pursuant to 15 C.F.R. 930.41(b).¹

INFORMATION REQUESTS RELATED TO PROJECT PURPOSE

- **Inconsistencies among project purpose descriptions:** The CD Request and its accompanying submittals provide two different descriptions of the proposed project’s purpose, with each raising different issues regarding the project’s likely effects on coastal resources and on CCMP conformity. Please clarify the project purpose and provide the additional information described below that result from resolving the inconsistent descriptions.

¹ 15 C.F.R. 930.41(b) states, in relevant part: “State agency concurrence shall not be presumed in cases where the State agency, within the 60-day period, requests an extension of time to review the matter. Federal agencies shall approve one request for an extension period of 15 days or less.”

- o **Determining the project purpose and related effects on coastal resources:** The CD Request at page 1 states that the project activities are to provide data to be “used to determine the feasibility of various water supply alternatives” and on page 2 specifies that the data are to be used “to further assess the feasibility of subterranean wells for purposes of collecting seawater, as well as returning concentrated seawater.” Our understanding of the proposed project during the past several months of consultation has been based on this project purpose – i.e., determining whether the site will be feasible for potential subsurface structures. The CD Request document notes that the full evaluation of these alternatives and potential wells will be the subject of subsequent environmental review.

However, the overall submittal does not provide the information needed to show project activities will meet this project purpose. The Final EA cites several alternative project purposes that do not include the feasibility aspect noted above, and its responses to comments regarding feasibility are inadequate for our review. For example, regarding comments about whether the data expected from the proposed activities will be adequate or effective for determining the feasibility of water supply alternatives and subterranean wells, the Final EA does not respond to those concerns, but states in one place that the purpose of the study is not to determine feasibility² and states in another that the project is meant only to characterize subsurface conditions.³ Confusingly, it also states elsewhere that the purpose of the study is to address potential impacts of the study.⁴ These responses are not consistent with the project purpose as defined in the CD Response document and do not provide the needed information.

Our concerns about the project purpose and its feasibility component (or lack thereof) are that the proposed activities could cause substantial adverse impacts to coastal resources while not accomplishing their intended purpose. The project purpose as described in the Final EA – i.e., that it is not meant to determine feasibility, but to just characterize subterranean material – the proposed activities do not appear useful and do not appear to be worth the risk to coastal resources. For the CD Request document’s more comprehensive project purpose definition, the submittals do not describe how the proposed activities will provide sufficient data to determine whether the site is feasible (or infeasible) for subsurface intakes and discharges.

² From Final EA, page 105: “The purpose is not to ‘determine feasibility of various water supply alternatives.’ As stated in its entirety, ‘The data collected from this study will be used to determine the feasibility of various water supply alternatives to be addressed in a subsequent, project-level Environmental Impact Statement/Environmental Impact Report.’”

³ From Final EA, page 57: “The purpose of the current investigation study is to characterize the subterranean material/deposits comprising the paleochannels at Santa Rosa Creek beach and Shamel Park beach areas. Specifically, the data collected will provide the thickness, depth, and permeability of subterranean deposits within previously identified paleochannels, as well as the horizontal alignment of the main Santa Rosa Creek paleochannel. This data may be useful in an analysis of a future project for water supply.”

⁴ From Final EA, page 105: “As stated in the Abstract on page ii, the project purpose is to: ‘address potential impacts that may result from implementation of the proposed geotechnical research investigation data collection study for a proposed water supply action/activity.’ The proposed investigation study is not the water supply action/activity itself.”

This latter concern is based in part on the current proposal not including several data collection activities that were part of a previous Corps proposal to determine the feasibility of this same site for the same subsurface structures. The previous project, CD-02-010, approved by the Commission in May 2010, included a pump test, monitoring wells, and other data gathering activities that were deemed necessary to fully characterize the site and to identify potential impacts to the protected Santa Rosa Creek estuary adjacent to the beach. Without the pump tests and monitoring wells, there will be insufficient data to determine whether subsurface structures can be constructed and operated in a manner protective of the site's coastal resources. A related concern is that the current schedule for producing an EIS/EIR that includes a determination of site feasibility does not include any future data collection activities that would provide the additional necessary information. We understand the EIS/EIR is already in preparation and is to be published sometime in the next year.

Please clarify that the proposed project purpose includes the feasibility determination described above. Please also detail how the proposed activities are expected to provide sufficient data to allow a determination of site feasibility, and whether any other data collection activities will be proposed prior to that determination. Please also incorporate in these responses the modeling-related requests below.

- o ***Effectiveness of proposed modeling in achieving the project purpose:*** We understand data collected at and near the beach during the currently proposed activities would be modeled to determine potential effects of subsurface water withdrawals on the nearby sensitive habitat in the Santa Rosa Creek estuary, and that these results would be presented as part of the feasibility analysis in the future EIS/EIR. However, and as discussed during several conference calls earlier this summer, Commission staff have a number of concerns about whether this proposed modeling approach will identify potential effects and whether it will be useful in determining feasibility. We are not aware of any modeling techniques or approaches that could use the limited amount of data expected from the current proposed project to characterize the extensive and likely heterogeneous subsurface conditions beneath a coastal estuary. For instance, the proposed activities would only partially characterize subsurface conditions beneath a relatively narrow strip of beach, where subsurface characteristics are likely very different than those beneath the estuary, which extends some distance inland. The nearest other source of data that the model could use is apparently an existing well about 1500 feet inland. Between the beach and this well lies the estuary, with no data available from the area beneath it and no proposals to collect data from that area. It appears that the Corps' inability to obtain data from beneath the estuary, which is within the Santa Rosa Creek Natural Preserve where extensive mechanized operations are apparently prohibited, will prevent it from developing a credible assessment of site feasibility or determining potential impacts of subsurface structures on the estuary. If there are methods to make such a determination, please provide them as part of the response to our information requests. Please also provide a detailed description of the modeling approach to be used, and describe any expected future data collection efforts that may be needed to support the modeling effort, along with the schedule for that future data collection, the modeling, and the preparation of the feasibility findings in the expected EIS/EIR.

INFORMATION REQUESTS RELATED TO PROPOSED PROJECT ACTIVITIES AND SITE CONDITIONS

- **Locating proposed project activities relative to the Mean High Tide Line (MHTL):** The proposed locations for many of the project activities are based on the location of the MHTL at Santa Rosa State Beach and Shamel Park. Along this area of shoreline, the MHTL serves as the jurisdictional boundary for several agencies with regulatory authority over the project, including the Monterey Bay National Marine Sanctuary, the California Department of Parks and Recreation (State Parks), the California State Lands Commission, and San Luis Obispo County, each of which allows or prohibits different activities within its jurisdiction. For example, motorized vehicles are not permitted within the State Park's Santa Rosa Creek Natural Preserve, which extends seaward across the beach to the MHTL, and the CD Request therefore proposes to operate outside this Preserve. It is therefore necessary to determine the location of the MHTL to ensure that proposed activities can occur at the proposed locations.

The CD Request and associated submittals do not accurately identify the MHTL and therefore do not allow for purposes of consistency review a determination of whether project activities can occur where proposed. Please provide the following additional information about the location of the MHTL in relation to the proposed activities:

- The CD Request acknowledges that the location of the MHTL changes over time⁵ and states at page 9 that “[a]n onshore land survey will be needed to determine the MHTL along the beach which will be used to establish the western boundary of the inland natural preserve area.” It further states that the MHTL will be determined daily “using conventional land surveyor methods.” However, without knowing the location of the MHTL, we cannot determine whether the proposed locations for project activities are sited in accordance with the jurisdictional and regulatory requirements of the involved agencies and the relevant resource protection policies. Please provide a survey showing the MHTL location along with the specific survey methods used to determine the MHTL and confirmation from each of the involved agencies – State Parks, State Lands Commission, Monterey Bay National Marine Sanctuary, and San Luis Obispo County – that the survey is consistent with methods they accept for determining their management boundaries. We note that the CD Request includes a map (at page 7, Figure 3) showing an MHTL at Santa Rosa Beach; however, since this map appears to provide only a preliminary location since the MHTL has yet to be determined.
- The CD Request at page 9 states that the MHTL at San Simeon, which is about nine miles north of the project site, is 4.65 feet. Please cite the method used to determine this elevation and the baseline from which it is derived. Please also ensure as part of the above-requested survey results whether this same elevation applies to the proposed project site at Santa Rosa Beach.

⁵ The MHTL continually changes over time due to a number of factors – including beach erosion or avulsion, changes in sea level or tidal regime, etc. It is generally based on the average height of all high tides over a 19-year lunar period.

- **Relation of proposed work periods to calculated beach profiles:** Several of the key project activities are proposed to occur below the MHTL during periods of low and minus tide conditions. The presumed available work periods – i.e., daylight hours with sufficient beach area below the MHTL for equipment to work – have been calculated based on tidal data and an assumed average slope profile for Santa Rosa Beach. The CD Request at page 11 states:

“From review of past bathymetry mapping (2003 California Department of Forestry and Fire), the slope of the near shore beach area appears to average less than 6.0 feet vertical per hundred feet horizontal. Thus for every one foot differential between the MHTL and falling tide would yield approximately 17 feet of exposed beach would occur below the MHTL. From review of such information, it appears that starting work during a falling tide would be prudent after tides are at least lower than approximately 3.6 feet. Work would then continue on the exposed beach area until the tide returns, which suggests ceasing operations and removing equipment from the beach area before a positive 2.00 feet rising tide occurs.”

- It appears, however, that Santa Rosa Beach rarely assumes this above-referenced average profile. This area of the shoreline is subject to relatively extreme changes and high variability in its beach profile during much of the year, due to winter storms, high rainfall and surf conditions, breakout of Santa Rosa Creek through the beach, and other events. This has been illustrated in photographic documentation previously provided to the Corps. Many of the available photos show extensive beach areas that appear to be much steeper than the above-cited average profile, and several show wave runup extending landward across the beach and into the estuary. In fact, the CD Request at page 23 cites one of these events – high wave action in January 2010 that removed all the vegetation on the upper beach above the MHTL – though it also proposes that the winter storm season between December and February is an acceptable period for mechanized work on the beach.

Variations in the expected beach profile caused by heavy surf, high rainfall, or other events, could substantially diminish the amount of beach area that the CD Request’s calculation predicts will be available. This would significantly increase the risk that project activities would be subject to wave uprush and would result in a higher potential for spills, equipment damage, and other hazards, any of which could increase the project’s adverse effects on coastal resources. In our June 16, 2011 comment letter on the Draft EA, we asked the Corps to address these concerns and to identify how project activities would be modified when the beach was not at the presumed 6% slope. The response in the Final EA at page 69 states only that “[a]ctual conditions of beach profile can change and will be monitored prior to mobilization of equipment on beach by visual monitoring.” Please provide the specific criteria the Corps proposes to use for determining whether equipment can safely mobilize on the beach when the beach is not at the presumed 6% slope. We had also asked in that comment letter that the Corps define the “heavy rain” or “high surf” conditions that the Draft EA stated would serve as thresholds for stopping work on the beach. The response in the Final EA at page 69 states only that “[t]he subcontractor supervisor, who is familiar with the capability and maneuverability of the equipment, will make the decision daily” and “will make the decision in compliance with the Health and Safety Plans.” Please provide the specific criteria proposed to define these “heavy rain” and “high surf” conditions. Please

also provide those plans, which were not included with the CD Request, if they include the specific criteria. Finally, and relative to the above MHTL-related information requests, please specifically identify how the proposed locations of project activities will be modified to reflect beach profile changes that result in changes to the jurisdictional and regulatory MHTL boundary.

- **Proposed project schedule:** The CD Request and the associated submittals describe proposed work windows and dates for project activities, but include several schedule inconsistencies as well as some proposed dates that have already passed or will have passed before any likely Coastal Commission hearing on the project.⁶ Examples include:
 - **Overall work window:** The CD Request states at page 15 that project activities would occur between December 2011 – February 2012 and between September 2012 – November 2012. It later states at pages 16-17 that project activities would start at the beginning of November 2011. The Final EA states at page 37 that project activities would occur just between September and November 2011, while the IS/MND states at page 7 that project activities could occur between August and November.
 - **Daily work period:** The Final EA states at pages 31, 42, and 45 that all site work would occur during daylight hours; however, the CD Request at page 18 suggests that the geophysical survey may occur after dark.
 - **Project duration – geophysical survey:** The CD Request states at page 10 that the geophysical survey would take five days over a two-week period; however, the Final EA at page 8 states that this survey would occur between August 15 and August 30, 2011, dates which have already passed and are outside the above-referenced work periods between September and November. The IS/MND then states at page 7 that the geophysical survey would occur between August and November.
 - **Project duration – rotonomic sampling:** The CD Request states at page 11 that up to six rotonomic borings would take two to three days each for a total of about 12 to 18 days, though it then states at page 15 that these borings would take one to four days each for either a total of 12 to 15 days or four work weeks. The IS/MND at page 20 states that the geophysical survey and rotonomic sampling would take up to six weeks for both.

Please address these inconsistencies and modify the proposed dates so that they identify a single proposed project schedule and do not propose that activities occur in the past. The modifications should also take into account the other concerns and information requests in this letter, such as the above-mentioned changes to the beach profile due to winter storms. Please note, too, that a previous Commission concurrence for a similar Corps project at this location (CD-02-10, in May 2010) limited work on the beach to September and October due to habitat, sensitive species, and public access concerns.

- **Sediment and water quality sampling and testing:** In the Commission's conditional concurrence with CD-02-10 for the proposed Corps project at this location, the Commission concluded, and the Corps agreed, that for the project to be consistent to the maximum extent

⁶ As noted above, we received the CD Request on September 26, 2011. Since it is not yet complete, we are unable to determine when it will be scheduled for a Coastal Commission hearing, though it will not be before December 2011.

feasible with provisions of the CCMP, the Corps would conduct water quality sampling and testing of over one hundred potential contaminants. However, the Corps' follow-up report for that testing in May 2011 showed that tests were conducted for fewer than twenty contaminants. The current CD Request includes a proposal to conduct a suite of water quality testing similar to the previous project.

Please describe whether the Corps conducted the complete suite of testing as part of its approved 2010 activities. If conducted, please provide the complete test results; if not, please describe the basis for not conducting what had previously been agreed to as a feasible component of the project, and describe what assurances will be provided to ensure this current project includes the described testing. Additionally, as noted in correspondence provided earlier this month,⁷ concerns have been raised about the chain-of-custody used to ensure samples are properly protected. Please address the concerns expressed in that correspondence, and identify any additional measures the Corps will implement to ensure proper chain-of-custody procedures.

- **Hazardous Spill Contingency Plan:** The Plan, as submitted, is not yet adequate to ensure the proposed project will be consistent to the maximum extent practicable with relevant provisions of the CCMP. Please note that ensuring the adequacy of this proposed Plan is a particularly important aspect of this review, given that the project would involve the spill-related risks of heavy equipment operating in a dynamic beach environment immediately adjacent to sensitive coastal waters. Please modify the Plan to include all feasible measures for avoiding and responding to a spill in this environment, including measures to prevent harm to the listed sensitive species identified on pages 20-22 of the CD Request. Please also provide the specific information described below:
 - **Section 1.1.1 Drilling Fluids:** The Plan describes drilling fluids that would be used during the project; however, other submittals state that the project would not involve the use of drilling fluids. Please clarify and modify the Plan as necessary.
 - **Section 1.1.3 Petroleum Products from Vehicles and Equipment:** The Plan states that fueling and maintenance will be conducted as described in Section 1.5.4 of the Final EA. That document does not adequately describe which of the two staging sites will be used for fueling and maintenance. Please clarify which of the sites will be used and modify the Plan to identify site characteristics that may affect spill avoidance and response – including whether the staging area is paved, whether it includes existing stormwater treatment infrastructure, the distance and runoff routes to the beach or nearby coastal waters, and other similar site considerations that could affect the extent or treatment of potential spills. Please also specify the maximum amount of petroleum products that could be present at the project at any time – e.g., maximum fuel capacities of all vehicles, maximum fuel stored for project use, etc. – and identify what response equipment and procedures will be immediately available for response to a spill of that magnitude.
 - **Section 1.2 Spill Response Team:** The Plan states that any releases beyond the capabilities of the onsite response team would be handled by a secondary response service, and that the minimum response time for that secondary response service would

⁷ See September 16, 2011 emails from Tina Dickason to the Coastal Commission's Tom Luster, forwarded to the Corps' Thomas Keeney, regarding concerns about chain-of-custody provisions of the October 2010 core samples.

be in accordance with the Corps' safety plan. Please specify the expected minimum response time and the basis of that expectation, or provide the safety plan that includes that minimum response time.

- **Section 1.4 Notification:** The Plan includes two notification procedures, with one specifically for a spill considered a threat to the shoreline. Since the project site is on the shoreline, it appears any spill or release would be an immediate threat, and we recommend the Plan be modified accordingly.
- **Section 1.5 Minor Spill Response Procedures:** The Plan states that a minor spill would be less than five barrels of oil or oily water. Given the project site's proximity to sensitive coastal waters, we suggest the Plan consider none of the potential spills or releases as "minor", and recommend it be modified accordingly.

ADDITIONAL SPECIFIC COMMENTS AND REQUESTS

In addition to the necessary information identified above, please provide the following information regarding the CD Request's evaluation of specific CCMP policies:

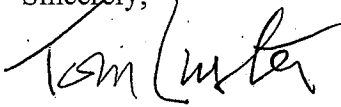
- **CCMP Sections 30210 – 30224 Public Access and Recreation:** This section of the CD Request states that activities on the beach will include a 50-foot exclusion zone around project activities, but that the project will not affect lateral access along the shoreline. Please modify this conclusion as necessary to incorporate changes to the project resulting from the above-noted reduced beach work area, location of the MHTL, etc.
- **CCMP Sections 30230 – 30233 Marine Environment:** This section of the CD Request does not identify how the proposed project will provide special protection of nearby areas of special biological significance or how it will "maintain, enhance, and, where feasible, restore" elements of the marine environment, as required pursuant to CCMP Section 30230.
 - The proposed project site is immediately adjacent to the state's Cambria State Marine Conservation Area, which was established in part to protect biological resources in and near the site. As noted above, the project site is also adjacent to the Santa Rosa Creek Natural Preserve. This section of the CD Request does not acknowledge either of these designations or the measures that may be necessary to comply with their requirements for resource protection. Please modify the CD Request to include this analysis.
 - The determination states that noise and activities are not expected to adversely affect sea otters in waters adjacent to the project site, though no analysis is provided to support this assertion. The proposed activities include the use of drilling equipment with decibel levels that may be high enough to affect nearby otters or other marine mammals. Please identify expected decibel levels from the equipment and the expected levels in nearby waters, including a comparison with ambient levels at the beach and in the water. Please also describe any measures the Corps will implement to reduce project-related noise and its effects on nearby species. We note that the previous project approved under CD-02-010 included sound attenuation devices as feasible mitigation measures to reduce potential noise-related effects from equipment similar to that proposed to be used in the current project.

- Documentation submitted to the CCSD shows mercury contamination in and near Santa Rosa Creek and its associated sediments. Because the project site includes areas that were likely within the Creek's historic channel areas, it may also contain some level of mercury contamination. Please describe any additional characterization the Corps has done to determine potential contaminant levels within the project site, describe measures the Corps will implement to determine the presence and amounts of site contaminants, and describe measures the Corps will implement to remediate those contaminants, if found.

CONCLUSION

In conclusion, the Commission staff has determined it will need the information requested above for a complete consistency determination and to adequately assess the project's consistency with the enforceable CCMP policies. Please feel free to contact me at (415) 904-5248 or tluster@coastal.ca.gov if you have any questions.

Sincerely,



Tom Luster
Energy, Ocean Resources, and Federal Consistency Division