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

W22a

Filed:	7/13/17
180th Day:	1/9/18
270th Day:	4/9/18
Staff:	J. Street-SF
Staff Report:	9/1/17
Hearing Date:	9/13/17

STAFF REPORT: REGULAR CALENDAR

Application No.:	**9-17-0517**
Applicant:	**California State Lands Commission**
Location:	Summerland Beach, Santa Barbara County
Project Description:	Plugging and abandonment of the Becker well
Staff Recommendation:	Approval with conditions.

SUMMARY OF STAFF RECOMMENDATION

The California State Lands Commission (CSLC) proposes to properly seal and abandon the Becker well, a derelict oil well located in the intertidal zone of Summerland Beach, Santa Barbara County (**Exhibits 1, 2**). The Becker well is one of hundreds of "legacy" oil and gas wells in the Summerland Beach area left over from the development of the Summerland Oil Field in the late 19th and early 20th century, and one of several wells known to be actively leaking crude oil onto the beach and into coastal waters. Re-abandoning the Becker well to modern standards would reduce or eliminate oil leakage from the well, benefitting coastal access and recreational use of the beach and the quality of nearshore habitats.

The primary elements of the project would include: (1) Deployment of a jack-up barge on the beach adjacent to the well to provide an off-beach work space for all subsequent project phases; (2) Construction of a temporary, double-walled sheet pile cofferdam around the well site to isolate the well from the ocean and allow for partial excavation of the well casing; (3) Well

abandonment operations, including the use of a drill rig to clean out the well bore, and the injection of cement into the well casing to seal the well; (4) Removal of the cofferdam and jack-up barge. Project operations would require several barge trips between the project site and Port of Long Beach to deliver materials and equipment, as well as the use of other support vessels.

The key Coastal Act issues raised by this project are the potential for spills of oil and other hazardous materials during project activities, adverse impacts to marine resources, temporary effects on public access, recreation, and visual resources at Summerland Beach, and possible disruption of cultural and archaeological resources. Although the risk of a significant oil spill during well abandonment activities is low, such an event could cause widespread harm to beach, intertidal and marine habitats and species and to recreational, scenic and cultural resources. To minimize the potential for spills during well work, CSLC would implement a number of measures, including an abandonment and contingency plan, the use of blow out prevention devices and a double-walled cofferdam for containment, and detailed spill response procedures. In order to strengthen these protections, Commission staff recommends **Special Condition 7**, which requires submittal of a Final Spill Prevention and Response Plan, which, along with other measures, would require identification of worst-case spill scenarios and provision of sufficient spill response equipment.

Construction activities, especially the anchoring of the jack-up barge and installation of the cofferdam using vibratory pile driving, have the potential to harm beach, intertidal and hard-bottom seafloor habitats, as well as marine mammals, fish and marine water quality. To avoid and minimize impacts, Commission staff recommends several conditions designed to protect sensitive marine habitats and species. These include **Special Conditions 2**, **4**, and **5**, which incorporate measures to protect hard bottom areas and kelp beds during vessel anchoring and transit, minimize risks to marine wildlife from underwater noise during pile driving, and reduce the effects of night-lighting; **Special Condition 3** requiring the avoidance and monitoring of grunion spawning on the beach; and **Special Condition 6** requiring CSLC to submit a Marine Wildlife Monitoring and Contingency Plan for the protection of marine mammals and sea turtles during vessel transit. **Special Conditions 7** and **8** require CSLC to submit plans and enact measures to protect against the discharge of hazardous and non-hazardous substances into the marine environment during construction and vessel transit.

The short, three week duration and limited footprint of the project ensure that adverse effects on coastal access, recreation, fishing and visual resources, including closure of a small portion of the beach, would be temporary. As part of **Special Condition 2**, CSLC would be required to avoid pile driving on nights and weekends, and adopt measures to reduce the visual effects of night-lighting. Although the risk of encountering archaeological and cultural resources at the project site in the surf zone is low, **Special Condition 2** also incorporates measures requiring pre-project surveys, implementation of a cultural resources-specific spill response plan, and the proper handling of any discovered human remains.

As conditioned, staff recommends the Commission find the project consistent with Coastal Act Sections 30210, 30220, 30221, 30230, 30231, 30232, 30233, 30234.5, and 30251.

Commission staff recommends **approval** of coastal development permit application 9-17-0517, as conditioned. The **motion** to implement this recommendation is found on **Page 4**. The standard of review for this project is Chapter 3 of the Coastal Act.

TABLE OF CONTENTS

APPENDICES

EXHIBITS

I. MOTION AND RESOLUTION

Motion:

*I move that the Commission **approve** Coastal Development Permit 9-17-0517 subject to conditions set forth in the staff recommendation.*

Staff recommends a **YES** vote on the foregoing motion. Passage of this motion will result in approval of the permit as conditioned and adoption of the following resolution and findings. The motion passes only by affirmative vote of a majority of Commissioners present.

Resolution:

The Commission hereby approves the Coastal Development Permit 9-17-0517 and adopts the findings set forth below on grounds that the development as conditioned will be in conformity with the policies of Chapter 3 of the Coastal Act and will not prejudice the ability of the local government having jurisdiction over the area to prepare a Local Coastal Program conforming to the provisions of Chapter 3. Approval of the permit complies with the California Environmental Quality Act because either 1) feasible mitigation measures and/or alternatives have been incorporated to substantially lessen any significant adverse effects of the development on the environment, or 2) there are no further feasible mitigation measures or alternatives that would substantially lessen any significant adverse impacts of the amended development on the environment.

II. STANDARD CONDITIONS

This permit is granted subject to the following standard conditions:

1. **Notice of Receipt and Acknowledgment**. The permit is not valid and development shall not commence until a copy of the permit, signed by the Permittee or authorized agent, acknowledging receipt of the permit and acceptance of the terms and conditions, is returned to the Commission office.

2. **Expiration**. If development has not commenced, the permit will expire two years from the date on which the Commission voted on the application. Development shall be pursued in a diligent manner and completed in a reasonable period of time. Application for extension of the permit must be made prior to the expiration date.

3. **Interpretation**. Any questions of intent of interpretation of any condition will be resolved by the Executive Director or the Commission.

4. **Assignment**. The permit may be assigned to any qualified person, provided assignee files with the Commission an affidavit accepting all terms and conditions of the permit.

5. **Terms and Conditions Run with the Land**. These terms and conditions shall be perpetual, and it is the intention of the Commission and the Permittee to bind all future owners and possessors of the subject property to the terms and conditions.

III. SPECIAL CONDITIONS

This permit is granted subject to the following special conditions:

1. **Other Permits and Approvals.** PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, the Permittee shall provide to the Executive Director copies of all other local, state, and federal permits required to perform project-related work. These permits and approvals include:

   a. County of Santa Barbara: Coastal Development Permit for project elements occurring within the County's Local Coastal Program jurisdiction.

   b. U.S. Army Corps of Engineers: Authorization under Department of the Army (DA) Permit pursuant to Rivers and Harbors Act Section 10 and Clean Water Act Section 401.

   c. Central Coast Regional Water Quality Control Board: Water Quality Certification pursuant to Clean Water Act Section 401.

   Any changes to the approved project required by these agencies shall be reported to the Executive Director. No changes to the approved project shall occur without a Commission amendment to this CDP unless the Executive Director determines that no amendment is legally necessary.

2. **Final Environmental Impact Report (FEIR) Mitigation Measures**. This permit incorporates those mitigation measures identified in the July 2017 *Final Environmental Impact Report for the Becker and Legacy Wells Abandonment and Remediation Project* (State Clearinghouse No. 2016101008) concerning oil spills, marine habitats, biological resources, water quality, recreation and fishing, and cultural resources, that are attached to this report as **Appendix B**.

   PRIOR TO THE COMMENCEMENT OF PROJECT ACTIVITIES, copies of all pre-project plans, reports and other materials required under the listed FEIR mitigation measures shall be provided to the Executive Director for review and approval. No project activities may begin until the Executive Director has provided written approval of these submissions.

3. **Grunion Run Protection & Monitoring**. To the maximum extent feasible, project activities occurring in the intertidal zone and on the beach shall be scheduled outside of the grunion spawning season defined for this permit as the seasonally-predicted grunion run and egg incubation period as identified at the beginning of each year by the California Department of Fish and Wildlife (generally April through August). If scheduling is not possible outside of the grunion spawning season, prior to project activities in the intertidal zone or on the beach, the applicant shall have a qualified biologist conduct a survey of the project site to determine presence of California grunion. If the biologist determines that any grunion spawning activity is occurring and/or that grunion are present in any lifestage in or adjacent to the project site, then no project activities shall occur shall or within 25 feet of the semilunar high tide mark during the grunion spawning activity. The Permittee shall

have the biologist provide inspection reports after each grunion run observed and shall provide copies of such reports to the Executive Director.

4. **Pre-Construction Benthic Survey**. NO MORE THAN 90 DAYS PRIOR TO COMMENCEMENT OF OFFSHORE ACTIVITIES, the Permittee shall conduct a Pre-Construction Benthic Survey of the project area that identifies any areas where hard bottom, kelp forest or other sensitive seafloor habitats are present. Results of the survey (including a map of all identified resources) shall be submitted to the Executive Director.

5. **Anchoring Plan**. AT LEAST 30 DAYS PRIOR TO THE COMMENCEMENT OF OFFSHORE ACTIVITIES, the Permittee shall prepare and submit an Anchoring Plan to the Executive Director for review and approval that demonstrates how, based on the results of the Pre-Construction Benthic Survey (**Special Condition 4**), the placement of anchors will avoid sensitive seafloor habitats. The Plan shall include at least the following information:

   (a) A list of all vessels that will anchor during the Project and the number and size of anchors to be set;

   (b) Detailed maps showing proposed anchoring sites that avoid all hard substrate, kelp beds or other sensitive seafloor habitats identified during the Pre-Construction Benthic Survey. To the maximum extent feasible, the anchors shall be located at least 40 feet (12 meters) from these sensitive seafloor habitat areas;

   (c) A description of the navigation equipment that would be used to ensure anchors are accurately set; and

   (d) Anchor handling procedures that would be followed to prevent or minimize anchor dragging, such as placing and removing all anchors vertically.

   If the Pre-Project Survey results and other analysis supporting the development of the Anchoring Plan demonstrate that impacts to sensitive seafloor habitats cannot be avoided, the Permittee shall, PRIOR TO THE COMMENCEMENT OF THE PROJECT, apply for a Coastal Development Permit Amendment containing a restoration proposal that provides mitigation proportional to the actual amount of rocky substrate, kelp forest, or other sensitive habitat that would be adversely affected by vessel anchoring. The application shall contain direct restoration actions that repair or restore affected areas.

6. **Marine Wildlife Monitoring and Contingency Plan (MWMCP**). PRIOR TO THE COMMENCEMENT OF MARINE OPERATIONS (including offshore and surf zone project activities), the Permittee shall prepare a MWMCP for review and approval by the Executive Director. The Permittee shall implement the MWMCP during all marine operations with the potential to result in collisions or other negative interactions with marine wildlife, including vessel transit, anchoring and anchor repositioning, and the docking of the jack-up barge at the project site. The MWMCP shall include the following elements, and shall be implemented consistent with vessel and worker safety:

   (a) Prior to the start of offshore activities the Permittee shall provide awareness training to all Project-related personnel and vessel crew, including viewing of an applicable wildlife and fisheries training video, on the most common types of marine wildlife

likely to be encountered in the Project area and the types of activities that have the most potential for affecting the animals.

(b) At least one qualified marine wildlife observer shall be located on project vessels while in transit, and on the jack-up barge (or other nearby vessel) during anchoring and barge docking, to conduct observations. The MWMCP shall identify the appropriate number and placement of observers to ensure adequate coverage of the surrounding marine environment during vessel transit and other in-water project activities unless the MWMCP identifies adequate justification for specific in-water project activities that do not warrant an observer due to negligible potential for impacts.

(c) Shipboard observers shall maintain a daily sighting report that shall be of sufficient detail to determine whether observable effects to marine mammals are occurring.

(d) The observer(s) shall have the appropriate safety and monitoring equipment adequate to conduct their activities (including night-vision equipment, when applicable).

(e) The observer(s) shall have the authority to temporarily halt any project activity that could result in harm to a marine mammal, sea turtle or other special status species, and to and to suspend those activities until the animals have left the area. For monitoring purposes, the observers shall establish a minimum 1,000 foot (305-meter) radius avoidance zone around project vessels for the protection of large marine mammals (i.e., whales) and a 500-foot (152-meter) radius avoidance zone around project vessels for the protection of smaller marine mammals (i.e., dolphins, sea lions, seals, etc.) or sea turtles.

(f) During transit to and from the project site:

- If a vessel is travelling parallel to a whale, the vessel shall operate at a constant speed that is not faster than the whale.
- Supply vessels shall not cross directly in front of migrating whales or any other threatened or endangered marine mammals or sea turtles.
- Vessel operators will coordinate with the observer to make every effort to ensure that female whales are not separated from their calves.
- Vessel operators will not herd or drive whales away, or otherwise attempt to influence whale swim patterns.
- If a whale engages in defensive action, support vessels will drop back until the animal moves out of the area.

(g) Propeller noise and other noises associated with the proposed project shall be reduced or minimized to the extent feasible.

(h) Marine observers and vessel operators shall monitor for and take steps to avoid fishing gear during vessel transit and project operations.

(i) In the event that any project activities result in a collision or any observable harassment or harm to a marine mammal, the observer shall immediately notify the Executive Director, NMFS, and CDFW.

(j) The captain(s) of project vessels and the Permittee's project management team shall be responsible for ensuring that the MWMCP is implemented.

(k) A final report summarizing the results of monitoring activities shall be submitted to the Executive Director and other appropriate agencies no more than 90 days following completion of project activities. The report shall include: (a) an evaluation of the effectiveness of monitoring protocols and (b) reporting of (i) marine mammal, sea turtle, and other wildlife sightings (species and numbers); (ii) any wildlife behavioral changes; and (iii) any project delays or cessation of operations due to the presence in the project area of marine wildlife species subject to protection.

7. **Final Spill Prevention and Response Plan.** PRIOR TO COMMENCMENT OF MARINE OPERATIONS, the Permittee shall submit a revised, project-specific Spill Prevention and Response Plan to the Executive Director for review and approval. The Plan shall identify the worst-case spill scenarios for both well abandonment activities and the operation of project vessels, including the jack-up barge, and demonstrate that adequate spill response equipment will be available to address these scenarios. The Plan shall also include preventative measures the Permittee will implement to avoid spills, clearly identify responsibilities of project personnel and spill response contractors, and list and identify the location of oil spill response equipment (e.g., booms, absorbent pads, etc.), and appropriate protocols and response times for deployment. Additionally, the Plan shall include a description of procedures that will be implemented for the handling, treatment and disposal of oil-contaminated sands and seawater generated or encountered during project activities. Petroleum-fueled equipment on the main deck of all vessels shall have drip pans or other means of collecting dripped petroleum, which shall be collected and treated with onboard equipment. Response drills shall be in accordance with Federal and State requirements. Contracts with off-site spill response companies shall be in-place and shall provide additional containment and clean-up resources as needed.

8. **Prohibition on Marine Discharge**. There shall be no marine discharge of sewage or bilge/ballast water from project vessels during offshore project activities. A zero-discharge policy shall be adopted for all project vessels.

IV. FINDINGS AND DECLARATIONS

A. PROJECT DESCRIPTION

The California State Lands Commission (CSLC) proposes to carry out well abandonment and remediation activities at the Becker well, an improperly abandoned oil well located in the intertidal zone of Summerland Beach, Santa Barbara County, in order to address on-going oil leakage causing adverse impacts to coastal resources.

Project Background

The Becker Well is one of numerous abandoned, "legacy" oil wells[1] within the inactive Summerland Oil Field, an area of naturally-occurring oil and gas seeps that was first discovered and developed in the 1890s (**Exhibits 1, 2**). Rapid development of the Summerland Field by

[1] The CSLC refers to abandoned wells that do not have a clear ownership history or responsible party designation as "legacy" wells.

numerous oil companies resulted in the drilling of hundreds of onshore and offshore wells, many drilled from wooden piers extending from the beach into the Pacific Ocean (**Exhibits 1, 3**). By 1900, 14 piers had been built at Summerland Beach. One of these, the Treadwell Pier, extended approximately 1,230 feet offshore. The Becker well (or "Becker Onshore Well") was drilled in the intertidal zone (insert elevation MLLW) in the vicinity of a shorter pier (the "Becker Pier") near the western end of Summerland Beach (**Exhibit 3**).

Within a few years, however, production in the Summerland Oil Field was in decline, and the field was abandoned as quickly and haphazardly as it had been developed. A severe winter storm in 1903 destroyed many of the wooden derricks on the piers and beach, and, due to declining production and unfavorable economics, most were not replaced. By 1906, most of the oil production had ended, and by 1920, only a few active wells remained. Most of the piers, derricks and wells installed at Summerland Beach were left to deteriorate. To the extent that the operators performed well abandonment, the techniques used, including attempts to cap or block wells with logs, trash, telephone poles, and rocks, fell well short of current technologies and regulatory requirements. The result is a legacy of inadequately abandoned wells along the Summerland coast, many of which are located on State tidelands and submerged lands. According to California Division of Oil, Gas, and Geothermal Resources (DOGGR) records, there are 445 abandoned wells (including 191 designated as offshore wells) within the Summerland Oil Field, an unknown number of which may be leaking oil into the marine environment.

Existing Conditions
At present, oil and gas leakage from natural seeps and improperly abandoned legacy wells often causes oil sheens in nearshore waters, oiling of Summerland Beach, and unhealthy air quality due to petroleum odors. At times, the oil sheens and odors have been severe enough to require beach closures by the Santa Barbara County Public Health Department. Although the overall contribution of legacy wells to these problems is not well understood, oil seepage from the area around the Becker well is regular and well documented (**Exhibit 2**). Historically, leakage associated with the Becker well has been visible approximately 10 days per year, and may amount to half a barrel of oil per day when active. More recently, anecdotal evidence suggests that leaks from the Becker well have become more frequent.

In addition to leaking oil into the marine environment, abandoned well casings are at times visible on the beach when they are not buried in the sand, typically during the winter season when beach sand is transported offshore by wave action. For example, during surveys conducted in February 2017 following a series of winter storms, CSLC contractors observed several exposed well casings on the beach nearby the location of the Becker well (**Exhibit 4**).

Although the State received no revenues from legacy wells, which were drilled without State authority and while trespassing on State property, the CSLC has engaged in multiple efforts to identify and remediate legacy wells and other oil infrastructure in the Summerland area over the past 60 years. These efforts have included the removal of debris from the beach, surveys to locate leaking well casings, and the sealing and reabandonment of numerous legacy wells. In 2015, the CSLC conducted a preliminary assessment of the status of the Becker well in order to inform planning for the current remediation and abandonment project (CDP waiver No. 9-15-

1312-W). Most recently, in February 2017, CSLC conducted surveys to locate and document legacy well casings that had been exposed on the beach by winter storms.

A more complete description of the history of the Summerland Oil Field, the existing baseline conditions, and prior survey and remediation work conducted by the CSLC staff at Summerland Beach is provided in the *Becker and Legacy Wells Abandonment and Remediation Project Final Environmental Impact Report (FEIR)*, certified by the CSLC on August 17, 2017.

Project Description

The purpose of the proposed project is to properly seal and abandon the Becker Well, in conformance with current well abandonment standards, in order to eliminate or minimize future oil leaks and remove potential hazards from the intertidal area of Summerland Beach. The project would be carried out in four main phases:

(1) Preliminary staging and jack-up barge deployment;
(2) Construction of a double-walled sheet pile cofferdam around the well;
(3) Well abandonment operations;
(4) Cofferdam removal and final jack-up barge departure.

A jack-up barge, 80 feet by 100 feet in size, would be deployed in the surf zone immediately seaward of the Becker well, and would be used during all construction activities at the well, including cofferdam installation and removal and well abandonment. **Exhibit 5** depicts a typical nearshore jack-up barge configuration, a schematic of the barge platform layout during well abandonment operations, and a list of other major equipment necessary to complete the project.

Staging

Project staging and other preliminary activities would include the following: (i) an offshore bathymetric and geophysical survey to guide the deployment of the jack-up barge and identify buried hazards and archaeological resources; (ii) installation of an emergency response trailer (housing spill response and clean-up equipment) in Lookout Park, on the bluff above Summerland Beach; (iii) establishment of an exclusion zone on the beach surrounding the well to prevent interference with project activities and protect public safety (**Exhibit 5**); and (iv) jack-up barge deployment. The preliminary bathymetric survey of the project area, to be carried out by shallow draught vessels fitted with echo sounders, is necessary to determine the range of tide levels that would allow the jack-up barge to be floated into position for deployment and removal at various phases of the project. It is estimated that high tides providing over six feet of water depth will be necessary for barge deployment and removal; several such high tides will occur during the fall of 2017, when the project is proposed to be carried out.

The jack-up barge would serve as both the work platform for project activities and the primary means of transporting equipment and materials to and from the project site. CSLC is proposing two basic options for barge deployment that would differ in terms of the number of round trips required between the barge home port and staging area at the Port of Long Beach (POLB) and the project site. Under the first option, a single barge (80 ft x 100 ft) would be used during all project phases. Three round trips between the POLB and project site would be required over the course of the project to deliver and remove the cofferdam and well abandonment equipment and materials. On each trip, the barge would be loaded at the POLB with the equipment and materials necessary for that phase of the operation. The barge would then be towed to the Project site and

positioned and anchored with small tugboats during high tides. The barge would be anchored with two onshore and two offshore anchors. Onshore anchors would be set in the sand by front loaders, prior to barge arrival. Once secured in the correct position, the barge platform would be raised to the appropriate height and work activities for the particular project phase would begin. Upon completion, the barge would be towed back to the POLB to prepare for the next project phase.

Under the second option, referred to by CSLC as the "enhanced barge" option, a single large barge, multiple barges, or a barge augmented by supply boats, could be used to transport all project equipment and materials (e.g., sheet piles, crane, well abandonment rig) to the project site during a single trip, eliminating the need for the barge to travel to and from the POLB on multiple occasions over the course of the project. At present, due to the higher costs associated with the enhanced barge options and the limited state funding available to carry out the Becker well remediation, CSLC does not believe these approaches to be feasible, and they are unlikely to be implemented. As discussed in subsequent sections, the impacts on coastal resources of the single barge and enhanced barge options would not be significantly different.

Exhibit 5 provides a schematic diagram of the barge position in the surf zone in relation to the Becker well and cofferdam.

Cofferdam Construction
Once the barge is positioned for the first time, a 25-foot square double-walled cofferdam would be constructed around the well using interlocking metal sheet piles driven into the sand. The cofferdam, consisting of a 10-foot square inner wall and 25-foot square outer wall, would isolate the well area from the ocean and provide containment of any spills or releases of oily material that may occur during well abandonment.

The cofferdam sheet piles would be driven into the sand using a vibratory pile driver system attached to a crane situated on the barge. In contrast to an impact pile driver, a vibratory pile driver applies continuous, vibratory vertical pressure, which, in combination with the weight of the pile, forces the sheet pile into the sand. The cofferdam would extend approximately 15 to 20 feet above the beach surface and would be driven downward 20 to 30 feet into the sand, depending on the depth of sand cover. Additional piles would be installed as bumpers to absorb impact from the barge arrival and positioning, and as necessary to provide external support for the cofferdam walls (e.g., in the event that sand cover does not allow the piles to be driven to the planned depths). Within the inner wall of the cofferdam, sand would be excavated (approximately 37 cubic yards) to expose the well casing to a depth of 10 feet. Excavated sand would be stored between the inner and outer cofferdam walls, and backfilled into the extraction area when well abandonment is complete. Seawater leaking into the well sump area would be pumped back into the ocean, unless the water from within the cofferdam is found to be contaminated with leaked oil, in which case it would be pumped to a containment tank and treated prior to discharge.

CSLC estimates that cofferdam installation will occur over a period of a week; however, extreme hardness of the substrate and/or discovery of buried remnants of historical oil operations (metal parts, etc.) could extend the installation schedule.

Well Abandonment Operations
To the maximum extent possible, CSLC would conform to current DOGGR regulations governing the plugging and abandonment of oil and gas wells. These standards require, among other things, that a well be plugged by placing cement in the well bore or casing at certain intervals, including across the oil/gas reservoir, the zone corresponding to the base-of-fresh water, and at the surface (generally to a depth of 100 feet). The purpose of the cement plugs is to seal the well bore or casing and prevent fluid from migrating between underground rock layers or from the reservoir to the surface. In many cases, the well casing is also perforated at various intervals and cement "squeezed" out of the perforations to allow for sealing of the area outside of the casing. In addition, the well must also be cut off five feet below the surface and a plate welded onto the top of the casing.

However, in the case of the Becker well, the abandonment process may deviate from DOGGR standards due to the age of the well, the unknown downhole conditions, and the possibility that junk present in the well hole or irregularities with the well casing (e.g., a parted casing) could prevent the well bore from being cleaned out and plugged to a 100-foot depth. CSLC would coordinate closely with DOGGR during the abandonment process, and if issues with the well arise, a modified abandonment procedure, contained in an abandonment and contingency plan to be approved by CSLC and DOGGR, would be implemented.

Becker well abandonment operations, to be conducted entirely from the jack-up barge platform, are estimated to take three days to complete (a week including barge transit time) and would include the following:

- Pre-job procedures and cofferdam dewatering;
- Installation and testing of riser, valves, and blowout preventer equipment (BOPE);
- Cleaning inside the casing as deep as possible to prepare for cement plugging;
- Logging and perforation of casing every 25 feet below a 100-foot depth;
- Cementing of the lower portion of the well (cement job #1);
- Perforation of the casing 50 feet below the surface;
- Attempted establishment of fluid (seawater) circulation down the casing and up the annulus;
- Circulation of cement down the casing until it returns to the surface on the exterior face of the casing (cement job #2);
- Removal of BOPE and riser;
- Welding of the top plate on the casing stub.

Seawater would be used as the wellbore circulation fluid to clean out the well in preparation for abandonment; no drilling muds or other potentially hazardous fluids would be used in the well. Seawater would be circulated through the well using cement pumps located on the project barge. **Exhibit 5** shows a schematic of a well after abandonment procedures have been completed.

Cofferdam & Barge Removal
After the barge is positioned for the third time, the sheet piles comprising the cofferdam would be removed using the crane and vibratory pile driver system used during installation. The

excavated area around the well would then be backfilled using the stored sand. During the next suitable high tide, the barge would be removed and towed back to the POLB along with all remaining project equipment and materials. This process would take approximately one week.

Project Schedule and Logistics
CSLC estimates that the full project will occur over a period of three weeks, operating on a 24 hour, seven day per week schedule and assuming no weather- or site condition-related delays. Fluctuating tides, inclement weather or high surf could result in delays (in particular in the docking and removal of the barge during various project phases), potentially extending the project schedule to eight weeks. CSLC aims to conduct the project during November of 2017 in order to take advantage of several favorable high tides; however, as noted above, the project may extend into the winter of 2018 as a result of unavoidable delays.

Up to 25 employees per day would be required to complete work activities within the desired time frame. Workers and equipment would be conveyed to and from the barge by tug boats from Santa Barbara Harbor. No employee parking would occur at Lookout Park.

Other Legacy Wells
In addition to evaluating the Becker well remediation and abandonment project, the FEIR provides an overview of the possible methods and environmental effects involved in future work to properly seal and abandon other legacy wells occurring in the Summerland Beach area. Several of these other legacy wells located near the Becker well are shown in **Exhibit 4**. In contrast to the Becker well, however, the locations of these additional legacy wells have not all been identified, preliminary assessments have not been completed, and neither the actual abandonment methods (e.g., use of barge vs. pier vs. beach access road) nor the potential environmental and coastal effects of future legacy well abandonment work have been determined or quantified. No funding has been allocated for this work, and it is unclear when, if ever, the work would take place. For these reasons, CSLC has agreed that the proposed project, for the purposes of this CDP, consists only of the Becker well abandonment and remediation activities described previously in this section. Prior to conducting future work at other legacy wells, CSLC would apply to the Commission for a CDP amendment or new CDP.

B. OTHER AGENCY APPROVALS

California State Lands Commission
The California State Lands Commission (CSLC) is the lead agency under the California Environmental Quality Act (CEQA) for the proposed project. On August 17, 2017, the CSLC certified the *Final Environmental Impact Report for the Becker and Legacy Wells Abandonment and Remediation Project*, and approved the project.

County of Santa Barbara
The onshore portions of the project above the mean high tide line would occur within the Local Coastal Program (LCP) jurisdiction of Santa Barbara County, and thus will require the approval of a coastal development permit (CDP) by the County Planning and Development Department, separate from the CDP required by the Commission for development occurring below the mean high tide line. A CDP application submitted to the County is currently under review. This staff

report only evaluates aspects of the proposed project occurring within the Commission's retained jurisdiction.

Central Coast Regional Water Quality Control Board (RWQCB)
The RWQCB regulates pollutant discharges into receiving waters in the project area. The RWQCB is currently reviewing CSLC's application for water quality certification pursuant to Clean Water Act Section 401.

U.S. Army Corps of Engineers
The U.S. Army Corps of Engineers (ACOE) has regulatory authority over the proposed project under Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 1344) and Section 404 of the Clean Water Act. On August 8, 2017, the ACOE issued a preliminary letter of permission (LOP) authorizing the project pending the issuance of a Section 401 water quality certification or waiver from the RWQCB and Commission review under the Coastal Zone Management Act (CZMA).

Pursuant to Section 307(c)(3)(A) of the Coastal Zone Management Act (CZMA), any applicant for a required federal permit to conduct an activity affecting any land or water use or natural resource in the coastal zone must obtain the Commission's concurrence in a certification to the permitting agency that the project will be conducted consistent with California's approved coastal management program. The subject coastal development permit (9-16-0517) will serve as Commission review of the project under the CZMA.

C. Dredging and Placement of Fill in Coastal Waters

Coastal Act Section 30233(a) states:

> *The diking, filling, or dredging of open coastal waters, wetlands, estuaries, and lakes shall be permitted in accordance with other applicable provisions of this division where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects, and shall be limited to the following:*
>
> *(1) New or expanded port, energy, and coastal-dependent industrial facilities, including commercial fishing facilities.*
>
> *(2) Maintaining existing, or restoring previously dredged depths on existing navigational channels, turning basins, vessel berthing and mooring areas, and boat launching ramps.*
>
> *(3) In open coastal waters, other than wetlands, including streams, estuaries, and lakes, new or expanded boating facilities and the placement of structural pilings for public recreational piers that provide public access and recreational opportunities.*
>
> *(4) Incidental public service purposes, including but not limited to, burying cables and pipes or inspection of piers and maintenance of existing intake and outfall lines.*
>
> *(5) Mineral extraction, including sand for restoring beaches, except in environmentally sensitive areas.*
>
> *(6) Restoration purposes.*

(7) Nature study, aquaculture, or similar resource dependent activities.

The proposed remediation and abandonment of the Becker well would involve the temporary placement of a jack-up barge adjacent to the well, the erection of a temporary cofferdam surrounding the well and the excavation of approximately 37 cubic yards of beach sand within the perimeter of the cofferdam in order to expose the well head and carry out well abandonment. Although these activities would be temporary, they nonetheless represent the filling and dredging of the open coastal waters of the Santa Barbara Channel.

Section 30233(a) imposes three tests on a project that includes dredging and/or fill of open coastal waters. The first test requires that the proposed activity must fit into one of the seven categories of uses enumerated above. The second test requires that there be no feasible less environmentally damaging alternative. The third test requires that feasible mitigation measures be provided to minimize the project's adverse environmental effects.

Allowable Use Test
One of the seven allowable uses of dredging and fill under 30233(a) is in the restoration of coastal habitats and resources. As described in Section IV.A, above, the plugging and abandonment of the Becker well is being carried out in order to eliminate or minimize the regular, on-going leakage of oil from the well, which has contributed to the impairment of coastal resource values (i.e., water, air, and visual quality, beach habitats, public access and recreation), and to restore the beach and nearshore environment to a more natural state. The Commission thus finds that the proposed project meets the allowable use test of Coastal Act Section 30233(a).

Alternatives
The Commission must further find that there is no feasible less environmentally damaging alternative to the proposed dredging and placement of fill in coastal waters. In the FEIR, the CSLC considered several alternative means for accessing the Becker well and conducting the necessary well abandonment and remediation activities, including the following:

- Small Cofferdam and Pier: Under this alternative, the Becker well and cofferdam (25-ft x 25-ft, double-walled) would be accessed via a temporary pier (105-ft long, 25-ft wide, 17-ft high) and access road (600-ft long, 15-ft wide) constructed across Summerland Beach. The temporary pier would be supported by steel piles driven into the beach, and would provide the primary work area for cofferdam installation and well abandonment. Construction of the access road would require the placement of a crushed rock base and creation of a sand berm on the beach. The road would connect to the existing paved access road descending the bluff from Lookout Park. Much of the equipment (including tanks and pumps) used during well abandonment would be staged in Lookout Park.
- Large Cofferdam and Platform: Under this alternative, a large, single-walled cofferdam would be constructed along the beach from the existing paved access road to the Becker well site, providing both protected access to the well site and a work platform. Approximately 600 feet of sheet pile would be installed from the paved road along the base of the bluff, providing space for a 25-foot wide temporary access road to allow the abandonment rig and other project equipment to reach the well site. Sheet pile would

also be installed out to and around the Becker well, and a working platform built on top of the cofferdam. As with the pier alternative, staging would occur within Lookout Park.

- Small Cofferdam (with beach construction) and Barge: This alternative would be similar to the proposed project, except that the construction of the cofferdam around the Becker well would occur from the beach, requiring the construction of a 15-foot wide temporary road across the beach and along the base of the bluff to connect with the existing paved access road.

The three project alternatives summarized above would each involve more extensive construction activities on Summerland Beach and/or the temporary placement of larger structures (e.g., pier, sheet piles) on the beach and in coastal waters than would occur under the proposed project. Moreover, the construction of a temporary access road across the beach would result in a greater degree of disturbance to beach habitats and ecology and more extensive impacts to coastal access and recreation (i.e., beach closure, use of Lookout Park), visual resources and cultural resources than would occur under the proposed project (*see* Sections IV.D, E, F and G), which would occupy and disturb only a limited area of beach in the intertidal zone and minimize the beach and park areas closed to public access.

CSLC also evaluated a "no project" alternative, but rejected this option because it would not address the primary objective of properly abandoning the Becker well and ameliorating the on-going adverse impacts to water quality, air quality, public access and recreation, and coastal habitats associated with oil leakage from the well.

Accordingly, for the reasons described above, the Commission finds that the proposed project is the least environmentally damaging feasible alternative and therefore meets the second test of Coastal Act Section 30233(a).

Mitigation

The final requirement of Coastal Act Section 30233(a) is that dredging and filling of coastal waters may be permitted if feasible mitigation measures have been provided to minimize any adverse environmental effects. In Sections IV.D and E of this report, the Commission has identified feasible mitigation measures that will minimize the adverse environmental effects of the dredging and fill – including the excavation and replacement of sand from the seafloor and the temporary placement of a jack-up barge and sheet pile cofferdam – associated with the proposed project. These mitigation measures include requiring CLSC to minimize impacts to hard substrate and kelp bed habitats, develop a plan for monitoring and avoiding impacts to marine mammals and special status wildlife, submit plans to minimize impacts from anchoring and spills of oil and hazardous materials, and to avoid discharges to open coastal waters. With the imposition of the conditions of this permit, the Commission finds that the third test of Coastal Act Section 30233(a) has been met.

D. SPILL PREVENTION AND RESPONSE

Coastal Act Section 30232 states:

> *Protection against the spillage of crude oil, gas, petroleum products, or hazardous substances shall be provided in relation to any development or transportation of such*

materials. Effective containment and cleanup facilities and procedures shall be provided for accidental spills that do occur.

The purpose of the proposed project is to conduct well abandonment activities at the Becker well, a legacy well that currently leaks crude oil on the beach and in nearshore waters at Summerland Beach. Well abandonment operations carry a risk of loss of well control and the release of crude oil or produced gas into the environment, with potential for adverse effects on public health, coastal access and recreation, and marine resources. The proposed project also includes a risk of the release of other hazardous materials, such as fuel and lubricant, due to its use of vessels and engines in and near coastal waters. Coastal Act Section 30232 requires an applicant to protect against these risks, to undertake measures to prevent spills and releases, and to provide effective cleanup measures should a spill or release occur.

Oil Spills During Well Abandonment Operations
As discussed in greater detail in the FEIR, prior assessments of the oil reservoir beneath Summerland Beach (along with the obvious fact that the Becker and other legacy wells continue to leak oil at the surface) indicate that reservoir pressures are sufficient to allow crude oil and gas to reach the surface if loss of well control were to occur during abandonment operations. CSLC estimates that the volumes of oil released if well control were lost would be relatively small, up to ten barrels, but the exact volumes are difficult to predict due to incomplete knowledge of the downhole reservoir conditions. Historically, peak production rates from wells drilled in the Summerland Oil Field were low, on the order of two to four barrels per day, which provides some indication that spill rates from an unpressurized well during abandonment operations would be low.

In order to minimize the risk of accidental oil and gas releases during well abandonment operations, CSLC proposes to follow all DOGGR procedures and requirements governing well abandonment, including the use of a circulation fluid during abandonment operations to contain reservoir fluids and prevent loss of containment or well control (i.e., reservoir fluids coming to the surface) and blow out prevention equipment (BOPE), which could be closed if there was a loss of well control and would effectively seal off the well to prevent a release. Nonetheless, though the probability of BOPE failure is low, there would still be some risk of hydrocarbon releases into the environment. Additionally, other pathways might allow reservoir fluids to migrate to the surface along the outside of the casing (annulus), bypassing the BOPE. This type of release would most likely be limited to leakage, as is currently occurring from the Becker well; however, there is some potential the vibrations from pile driving activities could increase leaks to the surface through the annulus spacing.

In order to further reduce the risk of a substantial release of oil to the environment, CSLC has proposed to install a double-walled, steel sheet pile cofferdam around the Becker well prior to initiating well abandonment operations. The cofferdam, including the use of cofferdam sealant systems, would provide a level of initial spill containment, particularly for the small oil leaks that are most likely to occur during project activities. Prior to construction, CSLC would prepare an Abandonment and Contingency Plan (included in the FEIR as **APM-1**) outlining the basic abandonment procedures that would be used and containing contingency measures for sealing the well and maintaining well control in the event that downhole conditions do not allow for

standard abandonment procedures to be carried out. CSLC would also ensure the availability of emergency response equipment during cofferdam installation and all well abandonment activities (included in the FEIR as **APM-3**), including (a) the provision of the project barge with booms, sorbent pads, snare or pom-pom fencing or other effective spill containment equipment; (b) the stationing of a tender boat with booms immediately offshore of the project site to allow for quick containment of larger spills; and (c) contracting with Clean Seas or another experienced oil spill response organization to manage spill response and recovery operations. A spill response trailer containing additional equipment would also be stationed nearby the project site in the Lookout Park parking lot.

These and other spill prevention and response measures would be implemented as part of a project-specific Oil Spill Response Plan, to be prepared prior to the start of project activities. Although this plan has not yet been developed for the proposed project, a plan with similar provisions was implemented successfully during the October 2015 preliminary investigation of the Becker well, and which the Commission staff previously reviewed prior to the issuance of CDP waiver 9-15-1312-W.

Spills and Releases During Construction and Vessel Transit

The proposed project requires the use of several different marine vessels to support well abandonment activities, as well as heavy equipment that would be situated on the jack-up barge during the various phases of the project. During project activities, the jack-up barge would also support tanks used to store hazardous substances (e.g., concrete waste, oil-contaminated water and sand from the cofferdam). Leaks or spills of diesel fuel, lubricant oil or other hazardous fluids from project vessels or mechanized equipment could accidentally be discharged into the marine environment. Depending on the size and contents of a leak, spill or discharge from one of these sources, impacts to marine organisms or other resources could be significant.

CSLC has proposed to prepare an Oil Spill Response Plan (OSPR) which would include mitigation measures to minimize the risk of accidental spills and releases from project vessels and equipment. These measures would include preventative steps such as regular maintenance and monitoring of such as regular maintenance and monitoring of project vessels, equipment and fluid storage tanks, the provision of fluids handling and secondary containment systems on the project barge (e.g., sump, spill containment walls), and refueling procedures and spill containment measures and equipment to prevent spills of fuel from reaching the marine environment. As noted above, the OSPR would also describe the onsite spill response team, equipment and procedures that CSLC would maintain for minor spills, the requirement to secure a contract with a certified secondary responder for larger spills, and procedures for agency notification following an incident.

Conclusion

In order to protect against the spillage of crude oil and other hazardous materials during project activities, and ensure that effective containment and clean-up strategies are employed, the Commission is including **Special Condition 7**, which requires CSLC to submit a Final Oil Spill Prevention and Response Plan for the review and approval of the Executive Director prior to project construction. The Final Plan will substantially conform to the applicant proposed measures contained in the FEIR and described above, but shall, additionally, identify the worst-

case spill scenarios for both well abandonment operations and project vessels and equipment, demonstrate that adequate spill response equipment is available for each scenario, identify the locations of oil spill response equipment, and include a plan for conducting training and response drills.

Based on this information, and as conditioned, the Commission finds that the proposed project is consistent with Coastal Act Section 30232.

E. MARINE RESOURCES

Section 30230 of the Coastal Act states:

> *Marine resources shall be maintained, enhanced, and where feasible, restored. Special protection shall be given to areas and species of special biological or economic significance. Uses of the marine environment shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes.*

Section 30231 of the Coastal Act states:

> *The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface water flow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.*

The proposed remediation and abandonment of the Becker well would take place in the intertidal zone of Summerland Beach, within or in proximity to sandy beach, soft- and hard-bottom seafloor, and kelp forests. Project activities, in particular the installation and removal of the sheet pile cofferdam, would include the excavation and disturbance of seafloor sediments and use of heavy equipment, and require the use of vibratory pile driving. Vessel traffic to and from the project site would traverse open water areas of the Santa Barbara Channel and Southern California Bight. These activities have the potential to affect several different marine resources, including marine vegetation, benthic species, fish, marine mammals and sea turtles, and water quality.

Beach, Intertidal and Subtidal Habitats

Proposed project activities at Summerland Beach, including the temporary placement of a jack-up barge, installation of a sheet pile cofferdam, and well abandonment operations, have the potential to adversely affect beach and benthic habitats and associated biota in the project area. These impacts would occur for the most part in areas of soft-bottom, sandy seafloor in the intertidal zone, but could also extend into more sensitive kelp beds and hard substrate areas in the project vicinity (**Exhibit 6**).

Beach and Soft Bottom Seafloor
Beach, intertidal and subtidal habitats in the immediate project area consist largely of seasonally-variable sandy shoreline and soft-bottom seafloor. These sandy habitats support a variety of common invertebrates species. The lower intertidal zone is dominated by the filter-feeding mole crab (*Emerita analoga*), which move up and down the beach with the tides, and polychaete worms. In the upper intertidal, drift kelp, including macrophyte wrack, is an important source of food for many invertebrates, such as beach hoppers (*Megalorchestia* spp.), kelp flies (*Coleopa vanduzeei*), isopods (*Alloniscus perconvexus* and *Tylos punctatus*), and various species of beetles. A recent assessment indicates that eelgrass is not present in areas immediately offshore Summerland (CDFW 2017).

Project impacts to beach and soft bottom areas are of potential concern because: (1) the proposed placement of the jack-barge, cofferdam installation, and setting of anchors for the barge would disturb the habitat of both epifaunal and infaunal benthic organisms; (2) infaunal organisms have limited mobility and cannot easily or rapidly escape habitat disturbance; and (3) the infauna provides a source of food for more mobile epifaunal, and shoreline organisms such as crabs, fish and shorebirds.

While some impacts to common benthic invertebrate and fish species in the areas immediately surrounding the Becker well worksite would occur due to sediment disturbance, the disturbed areas would be temporary (occurring within an approximate three week period), and extremely small relative to the geographic extent of this habitat type along the shoreline of Santa Barbara County. Moreover, the project would occur within the surf zone, a high-energy environment in which sand is regularly suspended and redistributed by wave action, and in which resident organisms are often mobile and capable of re-colonizing an area following temporary sediment disturbance. Studies have shown that other factors, including the fact that project-related disturbances would not involve the removal of sediment, and the close proximity of the disturbed sediments to undisturbed sediments, would tend to minimize the amount of time needed for recolonization and recovery by benthic organisms.

Potential for Impacts to Grunion
During the spring and summer months, the beach and intertidal areas of the project site provide spawning habitat for the California grunion (*Leuresthes tenuis*), a native fish species that spawns in intertidal beach habitats during very high tides in the spring and summer. Grunion spawning occurs immediately following spring tides (high tides that occur during the full and new moons) from March through August, and occasionally in February and September, with peak spawning in late March to early June (CDFW 2016). The eggs are incubated in the sand until the following series of spring tides, approximately 10 to 15 days, when the eggs hatch and are washed into the sea. California grunion is a species of concern due to its unique spawning behavior and a history of habitat modification and overharvesting. The California Department of Fish and Wildlife (CDFW) enforces seasonal closures on the harvest of grunion in order to protect the species during their peak spawning season.

The anticipated timing of the project during the late fall of 2017 would avoid the grunion spawning season. However, unanticipated project overruns into the winter could affect early spawning. In order to ensure that impacts to California grunion are avoided, the Commission is

adopting **Special Condition 3**, which requires that the project be scheduled outside of the grunion spawning season (defined as the seasonally-predicted grunion run and egg incubation period identified each year by the CDFW, generally April through August). If work during the spawning season cannot be avoided, Special Condition 4 requires that CSLC conduct surveys of the project area prior to any work in the intertidal zone to determine the presence of grunion, and, if grunion is present in or near the project site in any lifestage, that no project activities occur below or within 25 feet of the semilunar high tide mark during the grunion spawning activity.

As conditioned, the proposed project would not result in significant adverse impacts to beach and soft-bottom seafloor habitats or organisms.

Hard Substrate Seafloor & Kelp Forests
Hard substrate is exposed rocky seafloor area that provides habitat for a diverse group of plants and animals. Hard substrates, including rocky bottoms, rock outcrops, and rock crevices, provide habitat and shelter for numerous sessile organisms, demersal fishes, and mobile invertebrates such as lobsters and crabs. Hard substrates also provide the necessary anchoring sites for macroalgae such as giant kelp (*Macrocystis pyrifera*), one of the more visible and iconic marine organisms of the California coast. The kelp forests of coastal Southern California are highly productive and species-rich, in large part due to the multi-layered vertical habitat they provide. Over 50 fish species, 130 species of plants and macroalgae and almost 800 species of invertebrates are known to inhabit Southern California kelp forests, making them both ecologically and economically important.

The extent of kelp forest varies over time due to oceanographic factors, including major storms and variations in water temperature. Nonetheless, the area offshore of Summerland Beach has typically supported large, dense beds of giant kelp, and contains other hard substrate habitats (CDFW 2017) (**Exhibit 6**). More unusually, the kelp beds along the Santa Barbara County coast southeast of Point Conception lie in well-protected areas, and support kelp growing from sandy substrates. This sand-based kelp is enabled by specialized holdfasts that are able to penetrate into the bottom sediments (North 1994). The kelp forest and hard substrate habitats offshore of Summerland also support a variety of other macroalgae and provide foraging and sheltering habitat for fish and marine invertebrates. Kelp beds off the Santa Barbara County mainland coast between Jalama and Carpinteria are designated as environmentally sensitive habitat areas (ESHA) in the County LCP (County of Santa Barbara 2014).

Offshore of Southern California, hard substrate habitats and their associated biota are relatively rare, and therefore any effect on them is potentially significant. In particular, impacts to hard substrate are significant because: (a) rocky reefs and other hard substrate habitats comprise a small fraction of the seafloor area; (b) they support a diverse and productive assemblage of epifaunal invertebrates; (c) they attract fish as a nursery ground, food source, and as shelter; (d) epibiota residing on rocky substrates are sensitive to mechanical disturbance and increased sediment loads; and (e) hard bottom ecosystems are slow to recover from direct impacts.

The proposed project would occur largely within a broad area of sandy sediment within the intertidal zone, and is thus expected to avoid most direct impacts to hard substrate and kelp forest

habitats. However, the project has the potential to adversely affect adjacent kelp beds and rocky seafloor habitats and species due to (a) the setting or dragging of anchors during the situating of the jack-up barge, (b) the disturbance of seafloor sediments and turbidity resulting from the installation of the cofferdam and excavation of the well casing, and (c) direct damage of the kelp canopy from the frequent passage of project vessels travelling to and from the project site. Uncontrolled or unplanned placement and dragging of anchors and/or anchor lines from the jack-up barge could result in scraping, scouring and other physical damage of rocky habitat and kelp beds, while turbidity and sediment redistribution could result in the burial of hard substrate habitats and organisms and/or reduction in light penetration and photosynthesis in kelp beds.

Due the large area of sandy seafloor along Summerland Beach in the vicinity of the project site, there are numerous potential anchoring locations that would avoid hard substrate and other sensitive habitats. Nonetheless, the project area does include some areas of hard bottom seafloor and kelp beds. To ensure that hard bottom and kelp forest habitats are avoided during vessel anchoring, and that marine resources and the biological quality of coastal waters are sustained, the Commission is adopting several special conditions. **Special Condition 4** requires CSLC to conduct a pre-construction benthic survey to identify any hard bottom or kelp bed habitats in the project vicinity in order to guide the anchoring of the jack-up barge (and other project vessels, if necessary) and ensure that sensitive habitats are avoided.

Further, **Special Condition 5** requires the CSLC to submit, for the Executive Director's review and approval, an Anchoring Plan demonstrating that hard bottom and kelp bed habitat areas will be avoided and listing equipment and procedures to be used to ensure anchors will be accurately placed. If, contrary to expectation, the pre-construction benthic survey and anchoring plan demonstrate that impacts to hard bottom and/or kelp bed benthic habitats would be unavoidable, Special Condition **5** also requires CSLC, prior to commencing project activities, to apply for a CDP amendment containing a restoration proposal and mitigation plan that would mitigate the actual impacts to sensitive seafloor habitats

As noted above, the placement of the jack barge and construction and removal of the cofferdam will result in some disturbance of seafloor sediments, and will likely generate a minor amount of turbidity. However, because the sediment in the project area consists predominantly of sand, project activities would not generate large or persistent turbidity plumes, and any suspended sediments would settle nearby the point of disturbance. Moreover, the activity most likely to generate significant turbidity, the excavation of sand from around the well casing, would be confined within the cofferdam, thus preventing suspended sediment from spreading over a wide area. Overall, turbidity associated with project activities is expected to be less severe than that arising naturally from wave action in the project's intertidal location.

The FEIR notes the potential for vessel traffic to cause damage to the kelp canopy in the project area, and includes mitigation measure **MM BIO-5b** in order to minimize this adverse impact:

> ***MM BIO-5b. Kelp Avoidance.*** *Support vessel pilots shall avoid kelp forest areas to the extent feasible and shall utilize a similar corridor in repeat visits to the Project site.*

The Commission is incorporating this measure into this CDP as a part of **Special Condition 2**. The potential for impacts to the kelp canopy would be further minimized by the fact that CSLC would typically avoid running project vessels at night, reducing the risk of inadvertent boat passage through areas of dense kelp.

For these reasons, and as conditioned, the proposed in-water construction and well abandonment activities are not anticipated to result in significant adverse impacts to hard substrate and kelp forest habitats and organisms, but if such impacts are identified in the pre-construction surveys or anchoring plan, **Special Condition 5** requires that the applicant obtain an amendment to this permit allowing such impacts and ensuring that they are adequately mitigated.

Marine Wildlife
A number of special-status marine mammal, sea turtle, fish and seabird species occur in the coastal waters of the Santa Barbara Channel, and could be adversely affected by the proposed project.

Marine Mammals and Sea Turtles
Marine mammals occurring within Southern California waters include 34 species of cetaceans (whales, dolphins, and porpoises), six species of pinnipeds (seals and sea lions), and one species of fissiped (sea otter). Most commonly, the project vicinity supports local, year-round populations of marine mammals including common dolphin (*Delphinus* spp.), bottlenose dolphin (*Tursiops truncatus*), Risso's dolphin (*Grampus griseus*), California sea lion, harbor seal, and Southern sea otter, as well as seasonal populations of California gray whale (*Eschrichtius robustus*), humpback whale (*Megaptera novaeangliae*), blue whale (*Balaenoptera musculus*), and fin whale (*Balaenoptera physalus*). Gray whales migrate through the area twice each year, between December – February (southern migration) and February – May (northern migration). The Southern sea otter (*Enhydra lutris nereis*) is a federal- and state-listed threatened species; the other marine mammal species are protected under the Marine Mammal Protection Act.

California sea lions are the most abundant pinnipeds offshore of California and have their highest densities throughout the year near the northern Channel Islands. Harbor seals (*Phoca vitulina*) are commonly observed in the nearshore coastal waters and also haul out along the mainland shore of the Channel, particularly along a small stretch of beach and the rocky outcrops next to the Casitas Pier, approximately five miles to the east of the project site). The Casitas pier location site has been used for more than a century as a rookery for this species. Foraging pinnipeds are likely to occur in the project vicinity.

Though extremely rare, leatherback, green, loggerhead and olive ridley sea turtles have also at times been observed off the Southern California coast and have the potential to occur in the project area. All four sea turtle species are listed as federally threatened or endangered.

Fishes
Common fish species found in nearshore, soft-bottom habitats in the project vicinity include jacksmelt, topsmelt, California grunion, queenfish, walleye surfperch, white seaperch, northern anchovy, and white croaker, a bottom feeder that lives in the water column (Cross and Allen

1993). A number of other species, including Pacific bonito, jack mackerel, and the federally-listed steelhead (*Oncorhynchus mykiss*) also sometimes occurs in nearshore waters.

Seabirds
The Santa Barbara Channel (and in particular the northern Channel Islands) provides important breeding and foraging habitat for a wide variety of resident and migratory seabirds, including several special-status species which may occur in the project area. These species include the state endangered bald eagle (*Haliaeetus leucocephalus*), state threatened Scripps's murrelet, delisted California brown pelican, and CDFW-classified species of concern, including ashy storm petrel, rhinoceros auklet, double-brested cormorant, California gull and black storm petrel. California brown pelican, California gull, and double-crested cormorants are regularly observed in the nearshore waters and shoreline in the Project area. Double-crested cormorants nest and roost in a colony within 3,000 feet of the Project site. The remaining sensitive avian species are most commonly observed beyond the shelf break, in areas adjacent to submarine canyons and other deep water features, or around the Channel Islands. As such, their presence near the Project area is less likely.

Project Impacts on Wildlife
There are several potential types of impacts to marine mammals and other wildlife related to the proposed project activities, including: (a) harassment or injury during project operations, especially due to high levels of noise generated by vibratory pile driving during cofferdam installation and removal, (b) collisions with project vessels, and (c) adverse effects of oil spills and degraded water quality.

Project-related Noise
Another potential impact to marine wildlife from project activities would be from elevated levels of airborne and underwater sound associated with pile driving during the construction and removal of the sheet pile cofferdam to be built around the Becker well (see Section IV.A, above). In order to reduce the levels of noise associated with this phase of the project, CSLC is proposing to use a vibratory pile driver during the installation of the cofferdam sheet piles, a technique which produces lower noise levels than traditional impact pile driving. Nonetheless, the project-related noise could adversely affect marine mammals, sea turtles, fish and seabrids, which are known to be susceptible to disturbance and injury from high levels of human-generated sound, both above and under the water.

<u>Underwater Noise Impacts to Marine Mammals</u>
The proposed use of vibratory pile driving sheet pile installation in intertidal zone has the potential to adversely affect marine mammals due to the elevated underwater sound levels that would occur during this activity. Underwater, marine mammals rely on sound to navigate, and find food, mates, and communicate. Elevated levels of human-generated underwater sound have been shown to interfere with these activities and in some cases to cause internal injury, stranding, and mortality. Under the Marine Mammal Protection Act, the National Marine Fisheries Service (NMFS) defines acoustic thresholds of harassment for marine mammals. Level A harassment corresponds to sound levels that can result in injury, whereas Level B harassment can result in disruption of behavioral patterns. Previous NMFS guidance documents established harassment thresholds for broad categories of wildlife for both pulsed and continuous sources of sound. For example, for cetaceans, exposure to pulsed sounds of 180 dB re 1 µPa or above was considered

Level A harassment, while Level B harassment was determined to occur at pulsed sound levels above 160 dB re 1 µPa and continuous sound levels of 120 dB re 1 µPa, but below thresholds for Level A harassment.[2] However, in its most current guidance documents, the July 2016 *Technical Guidance for Assessing the Effects of Anthropogenic Sound on Marine Mammal Hearing*, NMFS provides more specific acoustic thresholds, taking into account the duration, repetition rate and sound frequency composition of different noise sources, as well as the varying hearing ranges and sensitivities of different marine mammal species.

An underwater noise analysis contained in the FEIR compared potential sound levels, at a range of frequencies, generated by vibratory pile driving to the functional hearing frequency ranges of marine mammals likely to occur in the project area. Based on measurements taken during previous projects, sound levels generated during vibratory pile driving range from 165 to 195 dB_{peak} (peak noise level) at a distance of ten meters, with average sound levels of 150 to 180 dB_{rms} (Caltrans 2015). Vibratory pile driving with a similar arrangement as the proposed project (10- to 12-inch steel H-piles) resulted in somewhat lower sound levels, of up to 164 dB_{peak} and an average of 147 dB_{rms} at 10 meters. (Caltrans 2015). CSLC's analysis found that underwater sound generated during vibratory pile driving would at least partially overlap the hearing ranges of whales, dolphins, and pinnipeds that could occur in the project area, and that Level A harassment (injury or permanent effects) could result for high-frequency cetaceans (true porpoises; 173 dB threshold) occurring within 24 to 54 meters (for average and peak sound levels, respectively) of pile driving activities. However, porpoise species in the Santa Barbara channel typically occur at least several hundred feet off the shoreline and therefore are unlikely to occur within the range of physiological impact. Sound levels occurring beyond the immediate vicinity of the pile driver would be below the Level A thresholds for all other cetaceans and pinnipeds (cumulative sound exposure levels > 198 dB), but could result in behavioral changes and Level B harassment among these species.

Based on this information, the potential for significant impacts on marine mammals from project-related underwater noise is low. Nonetheless, in order to prevent and minimize damaging effects of underwater sound on marine mammals, the FEIR included the following mitigation measures:

> ***MM BIO-4a. Marine Resources Noise Reduction***. *Installation of sheet pile shall utilize H-type, or equivalent, and smaller sized sheet piles to the extent feasible, and shall be scheduled to concur with the ocean-facing sheet piles installed at the lowest tides feasible during the construction phase to reduce the potential for behavioral impacts on marine mammals, sea turtles, and nearshore fish species.*
>
> ***MM BIO-4b. Soft Start.*** *A "soft start" shall be used during vibratory pile driving to give marine mammals, sea turtles, birds and nearshore fish species an opportunity to move out of the area away from the sound source. Soft starts would be implemented at the start of each day's pile driving and at any time following the cessation of pile driving for a period of 30 minutes or longer. For vibratory pile drivers, the sound shall be*

[2] Decibel (dB) references in this report are for underwater sound and use the water (not air) standard (i.e., re 1 µPa), unless otherwise indicated. "dB_{peak}" refers to the instantaneous peak sound pressure level, while "dB_{rms}" refers to the root mean square average sound pressure level over a period of measurement.

initiated for 15 seconds at reduced energy followed by a 30-second waiting period; this procedure shall then be repeated two additional times.

MM BIO-4c. Marine Mammal/Sea Turtle Monitoring. *To ensure that no harassment occurs during vibratory pile driving activities, site-specific marine mammal/sea turtle observations shall be conducted using qualified marine wildlife monitors (MWMs) stationed on the existing response boats (no additional boats should be used for marine observers) and approved by California State Lands Commission (CSLC) staff, in consultation with National Marine Fisheries Service (NMFS) and California Department of Fish and Wildlife (CDFW) staffs. Such monitoring shall include at least the following elements.*

- *The MWMs shall monitor an area within 150 meters (exclusion/shutdown zone) of the construction area for the presence of marine mammal species.*
- *Prior to the start of pile driving operations, if a marine mammal or sea turtle is sighted within or approaching the exclusion/shutdown zone, MWMs shall notify the on-site construction lead (or other authorized individual) to delay pile driving until the animal has moved out of the exclusion/shutdown zone or the animal has not been re-sighted within 15 minutes (for pinnipeds and small cetaceans) or 30 minutes (for large cetaceans).*
- *If a marine mammal or sea turtle is sighted within or on a path toward the exclusion/shutdown zone during pile driving activities, pile driving shall cease until that animal has moved out of the exclusion/shutdown zone or 15 minutes (pinnipeds and small cetaceans)/30 minutes (for large cetaceans) has lapsed since the last sighting.*
- *MWMs shall have authority to temporarily halt in-water project activities if those activities pose a threat to individuals of a special-status species, and to suspend project activities until the animals have left the area. If due to fog, rain, or other periods of limited visibility the exclusion/shutdown zone cannot be monitored, MWMs have the authority to direct cessation (or continuation) of construction activities based on observed abundance of marine mammals and sea turtles and their ability to view the exclusion/shutdown zone. Periodic reevaluation of weather conditions and reassessment of the continuation/cessation recommendation shall be completed by the MWMs.*
- *MWMs shall record sightings and animal behavior within the zone during pile driving activities. At a minimum, MWMs shall collect the following information daily: (1) general location(s) of MWMs and marine wildlife observations; (2) date/time monitoring begins/ends; (3) activities occurring during each observation period; (4) weather parameters (e.g., percent cover, visibility) and conditions (e.g., sea state); (5) species observed and number of individuals; (6) description of any marine wildlife behavior patterns, including bearing and direction of travel and distance from pile driving activities; (7) other human activity in the area. MWMs shall keep a log book of notes about sightings of marine mammals, special-status birds or sea turtles. Entries in the log shall be made at least hourly, even if the entry is "None observed." Reports shall be emailed to CSLC staff daily.*

- *Within 30 days of completion of pile driving, the MWMs shall submit to CSLC staff for approval a Final Marine Wildlife Monitoring Report and copies of log books prepared by the qualified MWMs that include at a minimum:*
  - *an evaluation of the effectiveness of monitoring protocols/procedures*
  - *reporting of all marine mammal, sea turtle, and other wildlife sightings (including species and numbers)*
  - *any wildlife behavioral changes that may be attributed to project construction or operations*
  - *all project changes (e.g., delays, work stoppages, etc.) due to the presence in the area of marine wildlife species.*

As indicated in **MM BIO-4c**, a 150-meter exclusion zone would be implemented during pile driving activities. This exclusion zone is based upon a conservative model of acoustic propagation for vibratory pile driving provided in the FEIR analysis, which indicates that the safety radii for the marine mammal behavioral threshold of 120 dB re 1 µPa would be up to 150 meters (x feet) for a generalized vibratory pile driver and 98 meters (x feet) for a vibratory pile driver with sheet piles similar to those proposed for use in the project (12- to 15-inch steel H-piles). Thus, **MM BIO-4c** ensures that protective marine mammal safety zone(s) would be implemented during any pile driving activities.

The relatively short proposed project time frame (three weeks) necessitates that some project activities occur at night, when visibility may not be sufficient to reliably establish the exclusion zones provided for in **MM BIO-4c**. In recognition of this difficulty (as well as to avoid disruptive project-related noise at night), the FEIR also includes **MM NOI-1**, which ensures that sheet pile installation will occur only during daylight hours (8 a.m. to 5 p.m.) and on weekdays:

> ***MM NOI-1. Construction Time Limits.*** *Construction activities involving the installation of sheet pile shall be conducted only between the hours of 8 a.m. and 5 p.m. Monday through Friday.*

Implementation of this measure would increase the effectiveness of MM BIO-4c in protecting marine mammals from the adverse effects of underwater noise.

The Commission is adopting **MM BIO-4a**, **MM BIO-4b**, **MM BIO-4c** and **MM-NOI-1** as a part of **Special Condition 2** in order in order to ensure that sound-related impacts to marine mammals will be minimized, and to enable the Commission staff to review the subsequent analyses, determinations, and monitoring required under these mitigation measures.

Potential Noise Impacts to Fishes and Sea Turtles

The elevated underwater sound levels associated with vibratory pile driving may also result in adverse impacts to sea turtle and fish species. While the current level of scientific understanding of these impacts remains incomplete, several studies carried out in recent years suggest that physical injury to fish may result from both instantaneous exposure to a maximum sound pressure level as well as from accumulated exposure to a lower sound level over a longer period of time. Hearing capabilities vary considerably between fish species and within fish groups due to the range of physiological differences in how fish detect and translate sound. As a result,

mortality and injury to fish as a result of sound varies depending upon the anatomy and physiology of the fish. For example, mortality and injury thresholds for fishes with swim bladders are lower than for fishes without swim bladders. In 2008, the Fisheries Hydroacoustic Working Group issued interim threshold criteria based on best available science for the onset of injury to fish from noise generated during pile driving, identifying a peak sound pressure level of 206 dB re 1 µPa and cumulative sound exposure levels of 183 to 187 dB re 1 μPa^2 per second as the critical thresholds (FHWG 2008). For behavioral changes in fish, NMFS and USFWS generally have used a 150 dB_{peak} threshold for ESA-listed fish species, beyond which "startle and stress" response that increase susceptibility to predation may occur (Caltrans 2015).

Sea turtles appear to be sensitive to low frequency sounds in a range similar to that of low-frequency cetaceans, but it is thought that sea turtle hearing may be more similar to that of fish than marine mammals. As a general matter, peak sound levels and cumulative sound exposure levels above 207 dB re 1 µPa and 210 dB re 1 μPa^2 per second, respectively, can be expected to cause injury or mortality among sea turtle species (Popper et al. 2014), with behavioral changes occurring in the range of 120 to 150 dB_{peak}. Mitigation measures **MM BIO-4a**, **-4b**, **-4c**, and **MM NOI-1**, incorporated into this permit under **Special Condition 2**, require measures, such as soft-start and ramp-up procedures, determination of preclusion radii for marine mammals, and monitoring for sea turtles species, that would protect sea turtles against significant injury or harassment from noise related to vibratory pile driving. These measures would not provide the same level of protection for fishes, which cannot feasibly be monitored for within an exclusion zone, but due to the short duration of the pile driving (less than a week) and the expectation that many fish would flee the project area during the ramp up period, the Commission finds that impacts to fish would not be significant.

Airborne Noise

In addition to underwater noise, vibratory pile driving and other construction activities would generate airborne noise that could potentially disrupt pinnipeds (e.g., sea lions and harbor seals) and birds occurring in the project vicinity. The closest pinniped haul-out site is located in Carpinteria, approximately 6 miles to the south-east of the Project site. Based on NMFS in-air acoustic thresholds for pinnipeds (90 dB_{rms} for harbor seals, 100 dB_{rms} for other pinnipeds; (NOAA 2017a), pile driving noise would not exceed these thresholds at the haul-out site due to the distance (approximately 6 miles) from the Project site, and in fact would have attenuated to below typical ambient noise levels.

While there are no official criteria for airborne or underwater noise thresholds for birds, Caltrans (2007) has recommended interim in-air guidelines to assess noise effects on birds, which are 125 dBA for permanent damage and 93 dBA for behavioral changes for in-air noise levels. For the proposed vibratory pile driving, in-air noise levels would be below the 125 dBA threshold except in the immediate vicinity of the pile driver, and below the 93 dBA behavioral threshold within 126 feet. The double-crested cormorant nesting colony, which is 3,000 feet from the Project site, would experience peak in-air noise levels of 72 dBA during vibratory pile driving, which is less than the behavioral threshold, and similar to ambient noise levels in the nearshore environment. In general, seabirds and other bird species would be expected to avoid the immediate project area during the limited period of active pile driving.

As conditioned, the Commission finds that significant adverse impacts from underwater and airborne sound would be avoided.

Collisions with Project Vessels; Night Lighting
The nearshore/intertidal location of the proposed project, along with the need to transport project materials and personnel via boat for long distances, places project activities within potential foraging and migration areas of marine wildlife, raising the possibility of collisions with or harassment from project vessels during marine operations. Incidents with marine wildlife could occur during several phases of the project: (a) during vessel transit between the project site and the proposed shore base(s) of the project vessels at Long Beach (up to three round-trips) and Santa Barbara Harbors (daily round trips at shift changes); (b) during the docking and removal of the jack-barge and cofferdam and well abandonment operations; and (c) during pre- and post-project seafloor surveys. The potential for adverse impacts to marine animals from vessel collisions activities would be heightened during the proposed night work, when poor visibility would increase the risk of collisions and artificial lighting associated with the project could become an attractive nuisance or disrupt the behavior of sensitive species.

The Commission has determined in reviewing previous offshore projects that the most effective way to avoid marine mammal or sea turtle collisions with project vessels, is to (a) time in-water activities so that they occur, as much as possible, outside of known migratory seasons, and during daylight hours; and (b) monitor effectively for the presence of these species during project activities and vessel transit. In the present case, the proposed project schedule would avoid the gray whale migration period (December through May), unless unexpectedly delayed, but would overlap, to a greater or lesser degree, with the seasonal occurrences of other whale and marine mammal species in the general area. The proposed round-the-clock work schedule, necessary in order to take advantage of high tide conditions during the fall of 2017 and limit the overall project duration, would expose wildlife to artificial lighting; however, CSLC has indicated that night-time vessel transit to and from the project site would generally be avoided, limiting the risk of night-time collisions with marine wildlife. Nonetheless, a robust and effective wildlife monitoring program will be necessary to adequately protect marine species.

The FEIR concludes that project-related vessel traffic has the potential to result in marine wildlife interactions, “including accidental collisions between support vessels and marine mammals or sea turtles”, citing previous instances in which large cetaceans and sea turtles have been struck by both large and small vessels. The risk of vessel strikes for smaller mammals (dolphins, pinnipeds and sea otters), is judged to be lower due to their greater agility, tolerance for vessels and/or observed avoidance behaviors. The FEIR finds that, with the implementation of a marine mammal and sea turtle avoidance and response training program, the potential for ship-strikes would represent a less-than significant impact. This training program would be included as a part of mitigation measure **MM BIO-3**:

> ***MM BIO-3. Marine Mammal and Sea Turtle Avoidance and Response Training.*** *Vessel operators shall develop, submit for approval, and implement a contingency and training plan that focuses on avoidance and response procedures when marine mammals and sea turtles are encountered at sea by crew or supply boats at the Project site. All boat crew members shall be provided training prior to the onset of*

construction activities that focuses on the identification of marine mammal and sea turtle species and the specific behavior of species common to the Project area, including when species can be expected to occur in the Project area. New crew members shall receive such training upon hire. All crew members shall serve as lookouts during boat trips so that collisions with marine mammals and sea turtles can be avoided. Minimum components of the training plan include:

- *Vessel operators shall make every effort to maintain a distance of 1,000 feet from sighted whales and federally threatened or endangered or otherwise protected marine mammals or sea turtles.*
- *Supply vessels shall not cross directly in front of migrating whales or any other threatened or endangered marine mammals or sea turtles.*
- *When paralleling whales, support vessels shall operate at a constant speed that is not faster than the whales.*
- *Female whales shall not be separated from their calves.*
- *Vessel operators shall not herd or drive whales.*
- *If a whale engages in evasive or defensive action, support vessels shall drop back until the animal moves out of the area.*
- *Any collisions with marine wildlife shall be reported promptly to the federal and state agencies listed below pursuant to each agency's reporting procedures.*

  Stranding Coordinator, Southeast Region
  National Marine Fisheries Service
  Long Beach, CA 90802-4213
  (310) 980-4017

  Enforcement Dispatch Desk
  California Department of Fish and Wildlife
  Long Beach, CA 90802
  (562) 590-5132 or (562) 590-5133

  California State Lands Commission
  Environmental Planning and Management Division
  Sacramento, CA 95825-8202
  (916) 574-1890

Implementation of this mitigation measure would likely decrease the risk of adverse interactions and collisions between marine wildlife and project vessels. In addition, the provisions of **MM BIO-4c** (incorporated into the permit as part of **Special Condition 2**), would provide adequate protection for marine wildlife during the pile driving phase of the project. However, **MM BIO-3** lacks several specific provisions necessary to protect and minimize the potential for harm to marine species, as required under Sections 30230 and 30231 of the Coastal Act. In particular, in approving previous offshore projects of similar scope, the Commission has required that at least one qualified marine mammal observer (a professional marine biologist and/or other person having received training according to NMFS guidelines) be present during specific project activities, including vessel transit and anchoring or anchor repositioning, to ensure that collisions or other harmful interactions with marine wildlife are avoided. The Commission has also required that the observer(s) must have full authority to modify the vessel course or speed when marine mammals or sea turtles are sighted within the avoidance zone radius and are at risk of

harm. These additional protections are also required here to ensure consistency with Coastal Act provisions.

Thus, the Commission is including additional mitigation measures to ensure that adverse impacts to marine mammals and sea turtles are minimized and healthy populations of marine organisms are maintained. **Special Condition 6** requires CSLC to submit a Final Marine Wildlife Monitoring and Contingency Plan (MWMCP) to the Executive Director for review and approval prior to beginning project operations. The Final MWCP shall include measures similar to those contained in **MM BIO-3**, but shall also require that a minimum of one NMFS-qualified marine wildlife observer be present during vessel transit, anchoring, and docking of the jack-up barge at the project site, the establishment of minimum 500-foot and 1000-foot avoidance zones, for smaller mammals and large cetaceans, respectively, and several additional mitigation and reporting requirements.

In order to minimize the adverse effects of night lighting associated with the project on marine wildlife, CSLC included in the FEIR **MM BIO-5a**:

> ***MM BIO-5a. Project Lighting.*** *All lighting associated with the Project, as well as any additional light required for the existing parking area and adjacent roads, drilling rig, barge, and sheet pile driver rig, shall be directed and shielded in such a way as to eliminate any direct light towards the ocean and immediate nearshore waters, as well as to minimize reflection and glare from such light in the same areas. As much as is allowable under Federal Aviation Administration (FAA) regulations, the red flashing light at the top of the drilling rig shall also be shielded from view from the immediate nearshore waters.*

The Commission is including this measure as a part of **Special Condition 2**. Combined with the short duration of the project (approximately three weeks), these minimization measures would avoid significant impacts from artificial lighting.

With these conditions in place, the potential for adverse impacts to marine mammals, sea turtles fishes and birds from collisions with project vessel, night lighting and other project activities would be minimized.

Water Quality

The proposed project would occur in the open coastal waters of the Santa Barbara Channel and the nearshore areas off of Summerland Beach, and could adversely affect water quality and marine biota as a result of (a) oil spills associated with well abandonment operations, (b) discharge of oil-contaminated sand and seawater from within the cofferdam, and (c) the release of fuels, lubricants, stored fluids, sewage or bilge/ballast water from project vessels and heavy equipment.

Oil Spills

As described in Section IV.D, above, the leakage of crude oil from the Becker well during well abandonment could enter the marine environment, resulting in adverse impacts to water quality, degradation of beach and nearshore habitats, and the health of marine organisms. The available evidence and current understanding of reservoir conditions at the Becker well site indicates that

leakage from the well would most likely be minor, comparable to the low-volume leaks that occur presently when the well is active. Nonetheless, the potential exists for a larger spills that could have more extensive effects on marine biota.

CSLC has proposed a number of project features and protective measures to minimize the risk of a substantial oil spill, including the use of DOGGR-mandated well abandonment procedures and blow out prevention equipment, development of a comprehensive well abandonment contingency plan, use of a double-walled cofferdam around the well to contain spills, and provision of emergency responders and equipment to allow for rapid containment and clean up of any spill that does occur. **Special Condition 7** requires that these measures, along with an evaluation of maximum spill scenarios and demonstration of the availability adequate response equipment, be consolidated and described in a Final Oil Spill Response Plan to be submitted to the Executive Director for review and approval.

Handling of Contaminated Materials
An important component of the proposed project is the storage and handling of excavated sands and fluids from within the cofferdam, both of which have the potential to become contaminated with hydrocarbons leaked from in or around the Becker well during the project. Under CSLC's original proposal, sand excavated from around the well, inside the inner cofferdam, would be temporarily stored within the outer cofferdam, and then back-filled into the original excavation once well abandonment operations are complete. Seawater leaking into the workspace around the well, inside the cofferdam, would be pumped back into the surrounding ocean. If either the excavated sand or pumped seawater were to become contaminated with oil, the proposed handling procedures could introduce oil into the surrounding ocean, to the detriment of water quality and the health of marine organisms.

In order to avoid or minimize these potential impacts, the FEIR includes two mitigation measures providing for the removal and treatment of oil-contaminated sand and seawater from the area within the cofferdam:

> ***MM HAZ-2a. Removal of Contaminated Sands.*** *All contaminated sands and/or soils encountered during the excavation around the well shall be removed from the site and disposed of at an appropriate facility.*
>
> ***MM HAZ-2b. Water Handling.*** *All contaminated water encountered during the construction and abandonment shall be removed from the site and disposed of at an appropriate facility. Either tanks shall be used, which could be hauled away by supply boats or stored on the barge, or, if larger volumes of contaminated water are anticipated, the use of oil-water separation equipment, such as separation tanks or skimmers, or equivalent, shall be used before discharging the water to the marine environment. Use of a sheet pile sealant system such as Decaseal, as approved by the California State Lands Commission (CSLC), shall be utilized during the installation of the cofferdam walls to minimize the water intrusion and/or contaminated water releases to the marine environment.*

MM HAZ-2b would also provide for the use of a sealant system to minimize water and contaminant leakage into and out of the cofferdams. The Commission finds that these measures are necessary to adequately protect water quality and marine biota, and is including them in this permit as a part of **Special Condition 2**. Additionally, **Special Condition 7** includes the requirement that a description of the procedures for the handling, treatment and disposal of oil-contaminated sand and seawater be included in the Oil Spill Prevention and Response Plan.

Spills, Leaks & Releases from Project Vessels and Equipment
As discussed in Section IV.D, leaks or spills of oil, fuel and other hazardous substances from project vessels and equipment could result in accidental discharge to the marine environment, degrading local water quality. Similarly, the accidental or intentional discharge of sewage, bilge water or ballast water from project vessels into the ocean would adversely affect water quality and, potentially, contribute to the spread of invasive species. Depending on the size and contents of a leak, spill or discharge from one of these sources, impacts to marine organisms could be significant.

As described previously, CSLC has proposed to prepare an Oil Spill Response Plan (OSPR) which would include preventative measures to minimize the risk of accidental spills and releases from project vessels and equipment, as well as containment and response strategies that would be implemented in the event of a spill. **Special Condition 7** would strengthen this commitment by requiring the submittal of a Final Oil Spill Prevention and Response Plan that, in addition, contains an analysis of worst case spill scenarios for vessel operations, the provision of adequate fill response equipment, and a plan for conducting training and response drills. Additionally, and consistent with past approvals of offshore projects, the Commission is including **Special Condition 8**, which requires implementation of a zero discharge policy for all project vessels.

CSLC is in the process of obtaining a Section 401 Certification from the Central Coast Regional Water Quality Control Board that will address potential water quality impacts from project activities. **Special Condition 1** requires Cabrillo to submit evidence of approval of the 401 Certification to the Executive Director.

In summary, with the inclusion of the Special Conditions described above, the proposed project will minimize the potential for adverse impacts to water quality and marine biota associated with oil spills, the disposal of oil-contaminated sand and seawater, and discharges from and discharges from project vessels and equipment.

Conclusion
For the reasons discussed above, the Commission finds that the proposed project, as conditioned by **Special Conditions 1 - 8**, will be carried out in a manner that maintains marine resources and sustains the biological productivity and quality of coastal waters and is therefore consistent with Coastal Act Sections 30230 and 30231.

F. PUBLIC ACCESS, RECREATION, FISHING AND VISUAL RESOURCES

Coastal Act Section 30210 states:

> *In carrying out the requirement of Section 4 of Article X of the California Constitution, maximum access, which shall be conspicuously posted, and recreational opportunities shall*

be provided for all the people consistent with public safety needs and the need to protect public rights, rights of private property owners, and natural resource areas from overuse.

Coastal Act Section 30220 states:

Coastal areas suited for water-oriented recreational activities that cannot readily be provided at inland water areas shall be protected for such uses.

Coastal Act Section 30221 states in part:

Oceanfront land suitable for recreational use shall be protected for recreational use and development …

Coastal Act Section 30234.5 states:

The economic, commercial, and recreational importance of fishing activities shall be recognized and protected.

Coastal Act Section 30251 states:

The scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance. Permitted development shall be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural land forms, to be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance visual quality in visually degraded areas.

The Becker well is located on Summerland Beach, a popular destination for beach recreation, water sports, nature appreciation, and other coastal-oriented recreational activities. The project site is also located directly south of Lookout Park, a four-acre County Park situated on the bluffs above the beach. Lookout Park provides barbecue grills, beach access, benches, picnic areas, and restrooms, along with recreational activities such as hiking trails, a playground, volleyball, and bird watching.

Coastal access, recreation and scenic resources at Summerland Beach have historically been adversely affected by the ongoing leakage of crude oil and associated gasses and odors from the Becker well and other legacy wells. As discussed in Section IV.A, above, these problems have at times forced the closure of Summerland Beach to protect public health and safety, and even when the beach is open, can impair recreational activities and visual enjoyment of the beach. While the proposed project would result in some minor, temporary impacts to coastal access and recreational use of the beach during well abandonment activities, the long-term effect of the project would be beneficial, by eliminating a known source of oil leakage and odors on the beach.

Project activities, including the installation of a temporary, 25-ft x 25-ft sheet pile cofferdam and placement of an 8,000 square foot jack-up barge, would occur in the intertidal zone at the west end of Summerland Beach, immediately surrounding and adjacent to the location of the Becker well. The active project site, along with an approximately 300-ft x 100-ft "exclusion zone" on

the beach immediately landward (**Exhibit 5**), would necessarily be closed for the approximately three-week duration of the project to protect public safety and prevent interference with project activities. However, the large majority of Summerland Beach would remain open for public access and recreation throughout the project period.[3]

As discussed in greater detail in Section IV.E, above, construction activities, in particular the use of a vibratory pile driver to install and remove the cofferdam, would cause elevated noise levels over much of Summerland Beach, potentially interfering with public enjoyment of the beach. However, this impact would be temporary, occurring over a period of less than two weeks outside the summer season, when recreational use of the beach is greatest. In addition, **Special Condition 2** includes a measure (**MM NOI-1**) that would restrict pile driving operations to weekdays, avoiding weekends and minimizing noise-related impacts to public access.

Project-related closures of ocean areas would be limited to the immediate area of the Becker well within the intertidal zone, and thus is unlikely to interfere with recreational boating or commercial or recreational fishing in the area. Moreover, the area of temporary closure in the intertidal zone would be very small relative to the total area available for these activities along the Santa Barbara County coast, with ample area still open for use in the nearshore area off Summerland Beach to the east of the project site. The few vessels needed to conduct the project would not significantly increase boat traffic in the area. Nonetheless, under mitigation measure **MM TRM-1**, CLSC would provide a description of its offshore operations in a Local Notice to Mariners submitted to the U.S. Coast Guard at least 15 days prior to the beginning of project activities, ensuring that advance notice of project-related restrictions and closures would be available to recreational boaters. This measure is incorporated into this CDP as part of **Special Condition 2**.

As noted above, the proposed project would require the temporary placement of structures – including a high-profile jack-up barge supporting a crane, well abandonment rig, and other equipment – on the beach. These structures and equipment would be visible to users of the beach and from the bluffs overlooking the beach, and would represent an unsightly and incongruous intrusion into the largely natural, scenic shoreline views that characterize the area. However, these adverse impacts to visual resources would be temporary, lasting approximately three weeks, and would be completely removed at the end of the project. Mitigation measure **MM BIO-5a**, incorporated into this CDP as part of **Special Condition 2**, would reduce the visual impacts of the project at night by requiring that night-lighting be directed and shielded to eliminate direct light towards nearshore waters and to minimize reflection and glare.

The greatest potential for significant and sustained project impacts to public access and recreation, fishing and visual resources is likely from an inadvertent oil leak or spill during well abandonment operations. However, as discussed in detail in Sections IV.D and E, the risk of impacts from a spill would be minimize through the implementation of a number of applicant proposed measures and the imposition of **Special Condition 7**, requiring the submittal, for

[3] The project would also require the use of a number of parking spaces within Lookout Park for the staging of emergency response equipment; however, this area lies within the LCP jurisdiction of Santa Barbara County, and will be evaluated as a part of the County's CDP review of the project.

Executive Director review and approval, of a comprehensive Final Spill Prevention and Response Plan.

As conditioned, the Commission finds that the proposed project would be consistent with the public access and recreation, fishing and visual resources policies of the Coastal Act.

G. CULTURAL RESOURCES

Coastal Act Section 30244 states:

> *Where development would adversely impact archaeological or paleontological resources as identified by the State Historic Preservation Officer, reasonable mitigation measures shall be required.*

The project area lies within the traditional territory of the Barbareño Chumash, who at the time of European contact inhabited densely-populated villages and towns along the Santa Barbara County coast. In preparing the FEIR, CSLC conducted both documentary research and outreach efforts to local Chumash tribal representatives and non-profit groups in an effort to identify archaeological and Chumash cultural resources in the project area, including both the staging area in Lookout Park (within the County of Santa Barbara's CDP jurisdiction) and the immediate area of the Becker well within the intertidal zone of Summerland Beach. No historic structures, archaeological deposits, or other cultural resource were identified. Although the beach has not been surveyed for archaeological resources, the nature of the marine and geologic setting of the active beach and surf zone make it extremely unlikely that intact archaeological resources exist where the Becker well abandonment and remediation activities would be conducted.

Nonetheless, to avoid and minimize the potential for impacts to unidentified archaeological and tribal cultural resources from project implementation, the FEIR included several mitigation measures. **MM CR-1** contains provisions for pre-construction review of the Becker well remediation and construction plans, including review by a qualified maritime archaeologist of the proposed pre-project geophysical survey data, a video survey of the seafloor, and/or the results of dive surveys to locate previously unidentified cultural resources in the immediate project area. **MM CR-2** requires the preparation of a Spill Response Plan for Archaeological Resources to plan for the identification, protection and mitigation of impacts on cultural resources in the event of an oil spill or increase in seepage resulting from well abandonment and remediation activities. Finally, **MM CR-3** outlines protocols to be followed in the event that human remains are discovered during project activities, including the provision that all ground-disturbing activity within 50 meters (165 feet) of the discovery ceased until the remains have been appropriately handled. The complete text of the mitigation measures is provided in **Appendix B**. The Commission is including these measures in the CDP as a part of **Special Condition 2.**

As conditioned, the Commission finds that the project will not adversely impact cultural resources and is therefore consistent with Section 30244 of the Coastal Act.

H. CALIFORNIA ENVIRONMENTAL QUALITY ACT

In addition, Section 13096 of the Commission's administrative regulations requires Commission approval of coastal development permit applications to be supported by a finding showing the application, as modified by any conditions of approval, to be consistent with any applicable requirements of the California Environmental Quality Act ("CEQA"). Section 21080.5(d)(2)(A) of CEQA prohibits approval of a proposed development if there are feasible alternatives or feasible mitigation measures available that would substantially lessen any significant impacts that the activity may have on the environment.

On August 17, 2017, the California State Lands Commission, acting as the CEQA lead agency, certified a Final Environmental Impact Report concluding that the project, with the implementation of several required mitigation measures, would not have a significant effect on the environment. The project as conditioned herein incorporates measures necessary to avoid any significant environmental effects under the Coastal Act, and there are no less environmentally damaging feasible alternatives or mitigation measures. Therefore, the proposed project is the least environmentally damaging feasible alternative and consistent with the requirements of the Coastal Act and CEQA.

Appendix A: Substantive File Documents

Coastal Development Permits and Application Materials:
Application and Application File for Coastal Development Permit No. 9-17-0517

CEQA Document for Project:
California State Lands Commission (2017). *Final Environmental Impact Report for the Becker and Legacy Well Abandonment and Remediation Project* (State Clearinghouse No. 2016101008), July 2017.

Other Reports and Resources:

California Department of Fish and Wildlife (CDFW) (2016). *California Grunion Information – California Grunion Facts and Expected Runs*. Available at: https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=36316&inline=true. Accessed August 2017.

California Department of Fish and Wildlife (CDFW) (2017a). California Natural Diversity Database. Available at: https://www.wildlife.ca.gov/Data/CNDDB. Accessed: May 2017.

California Department of Fish and Wildlife (CDFW) (2017b). Comment letter on *Becker and Legacy Well Abandonment and Remediation Project Draft Environmental Impact Report*, dated July 5, 2017.

California Department of Transportation (Caltrans) (2015). *Technical Guidance for Assessment and Mitigation of the Hydroacoustic Effects of Pile Driving on Fish*. November 2015

California Department of Transportation (Caltrans) (2007). *The Effects of Highway Noise on Birds*. September 30, 2007.

County of Santa Barbara (2014). *Santa Barbara County Comprehensive Plan – Coastal Land Use Plan*. Adopted 1982, republished May 2014. Available from: http://longrange.sbcountyplanning.org.

Cross, J.N. and L.G. Allen. 1993. Fishes. In: M.D. Dailey, D.J. Reish, and J.W. Anderson [Eds.]. *Ecology of the Southern California Bight: A Synthesis and Interpretation*. Berkeley: University of California Press. pp. 459-540.

Fisheries Hydroacoustic Working Group (FHWG) (2008). Agreement in Principal for Interim Criteria for Injury to Fish from Pile Driving Activities. Memorandum dated June 12, 2008. Retrieved from: www.dot.ca.gov/hq/env/bio/files/fhwgcriteria_agree.pdf.

National Marine Fisheries Service (NMFS) (2016). *Technical Guidance for Assessing the Effects of Anthropogenic Sound on Marine Mammal Hearing: Underwater Acoustic Thresholds for Onset of Permanent and Temporary Threshold Shifts.* NOAA Technical Memorandum NMFS-OPR-55.

National Oceanic and Atmospheric Administration (NOAA) (2017). Interim Sound Threshold Guidance. Available from: www.westcoast.fisheries.noaa.gov/protected_species/marine_mammals/threshold_guidance.html.

North, W.J. (1994). Review of Macrocystis Biology, in I. Akatsuka (ed.) *Biology of Economic Algae*, pp. 447-527.

Popper, A.N., A.D. Hawkins, R.R. Fay, D.A. Mann, S. Bartol, T.J. Carlson, S. Coombs, W.T. Ellison, R.L. Gentry, M.B. Halvorsen, S. Løkkeborg, P.H. Rogers, B.L. Southall, D.G. Zeddies, and W.N. Tavolga (2014). *Sound Exposure Guidelines for Fishes and Sea Turtles.* Acoustical Society of America Technical Report ASA S3/SC1.4 TR-2014, Springer Briefs in Oceanography, 87 pp.

Appendix B:

Mitigation Measures from the California State Lands Commission *Final Environmental Impact Report for the Becker and Legacy Well Abandonment and Remediation Project* (July 2017) that are Incorporated into CDP# 9-17-0517 in Special Condition 2

MM BIO-4a. Marine Resources Noise Reduction. Installation of sheet pile shall utilize H-type, or equivalent, and smaller sized sheet piles to the extent feasible, and shall be scheduled to concur with the ocean-facing sheet piles installed at the lowest tides feasible during the construction phase to reduce the potential for behavioral impacts on marine mammals, sea turtles, and nearshore fish species.

MM BIO-4b. Soft Start. A "soft start" shall be used during vibratory pile driving to give marine mammals, sea turtles, birds and nearshore fish species an opportunity to move out of the area away from the sound source. Soft starts would be implemented at the start of each day's pile driving and at any time following the cessation of pile driving for a period of 30 minutes or longer. For vibratory pile drivers, the sound shall be initiated for 15 seconds at reduced energy followed by a 30-second waiting period; this procedure shall then be repeated two additional times.

MM BIO-4c. Marine Mammal/Sea Turtle Monitoring. To ensure that no harassment occurs during vibratory pile driving activities, site-specific marine mammal/sea turtle observations shall be conducted using qualified marine wildlife monitors (MWMs) stationed on the existing response boats (no additional boats should be used for marine observers) and approved by California State Lands Commission (CSLC) staff, in consultation with National Marine Fisheries Service (NMFS) and California Department of Fish and Wildlife (CDFW) staffs. Such monitoring shall include at least the following elements.

- The MWMs shall monitor an area within 150 meters (exclusion/shutdown zone) of the construction area for the presence of marine mammal species.
- Prior to the start of pile driving operations, if a marine mammal or sea turtle is sighted within or approaching the exclusion/shutdown zone, MWMs shall notify the on-site construction lead (or other authorized individual) to delay pile driving until the animal has moved out of the exclusion/shutdown zone or the animal has not been re-sighted within 15 minutes (for pinnipeds and small cetaceans) or 30 minutes (for large cetaceans).
- If a marine mammal or sea turtle is sighted within or on a path toward the exclusion/shutdown zone during pile driving activities, pile driving shall cease until that animal has moved out of the exclusion/shutdown zone or 15 minutes (pinnipeds and small cetaceans)/30 minutes (for large cetaceans) has lapsed since the last sighting.
- MWMs shall have authority to temporarily halt in-water project activities if those activities pose a threat to individuals of a special-status species, and to suspend project activities until the animals have left the area. If due to fog, rain, or other periods of limited visibility the exclusion/shutdown zone cannot be monitored,

MWMs have the authority to direct cessation (or continuation) of construction activities based on observed abundance of marine mammals and sea turtles and their ability to view the exclusion/shutdown zone. Periodic reevaluation of weather conditions and reassessment of the continuation/cessation recommendation shall be completed by the MWMs.

- MWMs shall record sightings and animal behavior within the zone during pile driving activities. At a minimum, MWMs shall collect the following information daily: (1) general location(s) of MWMs and marine wildlife observations; (2) date/time monitoring begins/ends; (3) activities occurring during each observation period; (4) weather parameters (e.g., percent cover, visibility) and conditions (e.g., sea state); (5) species observed and number of individuals; (6) description of any marine wildlife behavior patterns, including bearing and direction of travel and distance from pile driving activities; (7) other human activity in the area. MWMs shall keep a log book of notes about sightings of marine mammals, special-status birds or sea turtles. Entries in the log shall be made at least hourly, even if the entry is "None observed." Reports shall be emailed to CSLC staff daily.
- Within 30 days of completion of pile driving, the MWMs shall submit to CSLC staff for approval a Final Marine Wildlife Monitoring Report and copies of log books prepared by the qualified MWMs that include at a minimum:
  - an evaluation of the effectiveness of monitoring protocols/procedures
  - reporting of all marine mammal, sea turtle, and other wildlife sightings (including species and numbers)
  - any wildlife behavioral changes that may be attributed to project construction or operations
  - all project changes (e.g., delays, work stoppages, etc.) due to the presence in the area of marine wildlife species.

MM BIO-5a. Project Lighting. All lighting associated with the Project, as well as any additional light required for the existing parking area and adjacent roads, drilling rig, barge, and sheet pile driver rig, shall be directed and shielded in such a way as to eliminate any direct light towards the ocean and immediate nearshore waters, as well as to minimize reflection and glare from such light in the same areas. As much as is allowable under Federal Aviation Administration (FAA) regulations, the red flashing light at the top of the drilling rig shall also be shielded from view from the immediate nearshore waters.

MM BIO-5b. Kelp Avoidance. Support vessel pilots shall avoid kelp forest areas to the extent feasible and shall utilize a similar corridor in repeat visits to the Project site.

MM HAZ-2a. Removal of Contaminated Sands. All contaminated sands and/or soils encountered during the excavation around the well shall be removed from the site and disposed of at an appropriate facility.

MM HAZ-2b. Water Handling. All contaminated water encountered during the construction and abandonment shall be removed from the site and disposed of at an appropriate facility. Either tanks shall be used, which could be hauled away by supply boats or stored on the barge, or, if larger volumes of contaminated water are anticipated, the use of oil-water

separation equipment, such as separation tanks or skimmers, or equivalent, shall be used before discharging the water to the marine environment. Use of a sheet pile sealant system such as Decaseal, as approved by the California State Lands Commission (CSLC), shall be utilized during the installation of the cofferdam walls to minimize the water intrusion and/or contaminated water releases to the marine environment.

MM NOI-1. Construction Time Limits. Construction activities involving the installation of sheet pile shall be conducted only between the hours of 8 a.m. and 5 p.m. Monday through Friday.

MM TRM-1. Publication of U.S. Coast Guard (USCG) Local Notice to Mariners. The CSLC shall ensure that its contractor submits to the USCG District 11 (as stated at www.uscg.mil/D11/DP/LnmRequest.asp), a request to publish a Local Notice to Mariners, at least 14 days prior to operation, that includes the following information:

- Type of operation (i.e., dredging, diving operations, construction)
- Location of operation including Latitude and Longitude and geographical position if applicable;
- Duration of operation including start and completion dates (if these dates change, the Coast Guard needs to be notified);
- Vessels involved in the operation;
- VHF-FM Radio Frequencies monitored by vessels on scene;
- Point of Contact and 24-hour phone number; and
- Chart Number for the area of the operation.

The above information shall also be provided to the Santa Barbara Harbormaster and USCG Marine Safety Detachment in Santa Barbara.