

**STAFF REPORT**

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**CONSIDER DELEGATING AUTHORITY TO THE EXECUTIVE OFFICER TO SOLICIT PROPOSALS FOR CONSULTANT SERVICES, NEGOTIATE A FAIR AND REASONABLE PRICE, AND AWARD AND EXECUTE AGREEMENTS FOR THE PREPARATION OF AN ENGINEERING PLAN FOR PERMANENT ABANDONMENT OF UP TO THREE LEGACY WELLS IN THE SUMMERLAND OIL FIELD; PROVIDE AN UPDATE ON THE IMPLEMENTATION PLAN FOR SENATE BILL 44 (JACKSON, 2017); AND PROVIDE AN UPDATE REGARDING THE BECKER ONSHORE WELL DECOMMISSIONING PROJECT LOCATED IN THE SUMMERLAND OIL FIELD, NEAR THE CITY OF SUMMERLAND, SANTA BARBARA COUNTY**

**BACKGROUND:**

The Summerland Oil Field at Summerland in Santa Barbara County was developed in an area of naturally occurring oil and gas seeps in the late 1890s, first from onshore and then from piers that extended into the Pacific Ocean. This was the first offshore oil development in the United States. The operators drilled and produced without regulation. Virtually no contemporaneous records exist regarding the drilling or abandonment of these wells. When production ceased to be economical in the early 1900s, operators left many of the wells and piers to deteriorate. To the extent operators performed well abandonments, they varied from well to well and involved rudimentary procedures that do not meet current health, safety, and environmental protection requirements. Due both to natural seeps and to leaks from these improperly abandoned "Legacy" wells, oil sheens are regularly observed on the beach and in the water near Summerland. A Legacy well is defined at Public Resources Code section 6212 as one drilled before current abandonment standards, where there is little or no information on the well's abandonment procedure, and a responsible party cannot be found.

The hundreds of oil wells in the waters offshore Summerland were drilled prior to the establishment of the Commission in 1938 without State approval and constituted an illegal trespass on State property. The State received no revenues from the wells, and the operators or responsible parties cannot now be found. The Commission has spent significant time and resources over the past 50 years

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to ameliorate legacy coastal hazards, including remnants of piers, oil wells and pilings, and old pipelines. (See [Coastal Hazards and Legacy Wells](#).)

In February 2017, winter storms caused significant sand erosion at Summerland Beach and exposed several well heads. Staff and WM Surveys, Inc., joined by representatives of the U.S. Coast Guard, the Santa Barbara Office of Emergency Management, InterAct Engineering, and the Carpinteria/Summerland Fire Department, arrived at Summerland Beach to investigate the exposed wells and to catalog their exact location.

The survey team located five exposed well casings and a steam vessel on the west end of the Beach, west of the Becker well area. Four of the casings were identified as Duncan wharf wells; however, two of these wells did not seem to be present in the historical map well-finder program and as such had not previously been identified or cataloged. The fifth casing was a well identified as the C.H. Olsson 805. This well had no concrete cap and was visibly leaking oil.

The survey team also located two well casings on the east end of the Beach, west of Loon Point. These were later identified as the Sunset Oil Co.–South Pacific Oil Co. Wharf Well 955 and the Duquesne Wharf Well 910. The Duquesne Well 910 was found with a concrete cap but was leaking oil through the side of the casing.

All of the exposed wells fall within the definition of Legacy wells. The two Duncan wells that were not previously cataloged were added to the inventory.

### **BECKER WELL RE-ABANDONMENT:**

Most recently, in March 2018, the Commission completed re-abandonment of the Becker well ([Becker Well Re-Abandonment Summary; Item 92, February 27, 2018](#)). The Becker well was notorious to local beach-goers as it had been the source of visible oil seepage for years. Approximately 60 shoreside wells in the area had been previously re-abandoned but, before the Becker well, no well in the surf zone or beyond that was known to be leaking had been successfully re-abandoned.

The Commission engaged InterAct PMTI (InterAct) to locate and investigate the Becker well ([Item 80, August 9, 2015](#)). Because no records were available regarding the wellbore or its condition, the initial phase of the Commission's operation was to excavate the Becker #1 well at low tide and assess the size and condition of the wellbore so that a re-abandonment plan could be engineered. The excavation took place in October of 2015. A single 7 5/8-inch casing string was discovered 4 feet below the mudline. Though no oil was visibly leaking, the

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casing was not properly cemented providing a path for oil migration in the uncemented annular area around the exterior.

A subsequent engineering study evaluated several alternatives for re-abandonment of the well. In late 2017, the Commission certified an Environmental Impact Report (EIR) for the Becker well and similarly situated future Legacy well abandonments ([Item 82, August 17, 2017](#)).

InterAct implemented the Becker well project using a crane barge. An 8-foot-diameter cofferdam was installed through the sand down to the top of the blue clay layer (a natural barrier to oil migration from underground deposits to the surface) to eliminate water intrusion and waves at the work site. Next the sand cover was excavated to expose the Becker well casing, and a 24-inch-diameter pipe pile was driven over the well casing 15 feet into the Blue Clay. Sand was then removed from the space between the 24-inch-diameter pile and the Becker well casing, and the pile was filled with cement to several feet above the Becker well casing. Finally, a steel plate was welded on top of the pipe to provide a secondary barrier, and the cofferdam was removed.

The crane barge was mobilized during the early hours of Monday, February 26, 2018. The cofferdam was removed 4 days later, after the well had been completely encapsulated. The project was completed without incident, on time, and approximately 10 percent under budget.

### **SENATE BILL 44:**

On October 10, 2017, Governor Brown signed into law Senate Bill 44 (SB 44), authored by Senator Hannah-Beth Jackson (19th Senate District). SB 44 created a coastal hazard and Legacy oil and gas well removal and remediation program, administered by the Commission. SB 44 will provide up to \$2,000,000, per year, for implementation of the Coastal Hazards and Legacy Oil and Gas Well Removal and Remediation Program beginning July 1, 2018 (the 2018–19 Fiscal Year) and each fiscal year thereafter until 2026, when the program and funding will be reassessed.

Commission staff will be kicking off the development of the long-term plan to fully utilize the funding made available by SB 44 to the benefit of the people of California and its coastal ecosystem. Initial planning includes the development of offshore aerial and dive surveys to collect data to establish baseline conditions and inform future work. These surveys will also help the Commission develop a more robust inventory of target sites, seep sites, and other critical ecosystems. Based on the locations where work may be needed, like Summerland Beach, work plans and CEQA review will be developed as necessary.

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The goals of the Coastal Hazards and Legacy Oil and Gas Well Removal and Remediation Program are: (1) complete an assessment of legacy oil and gas wells and other coastal hazards along the California coastline, including conducting aerial and dive surveys , and determining high-priority hazards and legacy oil and gas wells to remediate; (2) survey, study, and monitor oil seepage in state waters and tidelands under its jurisdiction to determine oil seepage locations, rates, and environmental impacts, and partner with experts to facilitate innovative solutions; and (3) cooperate with the Division of Oil, Gas, and Geothermal Resources to begin the process of remediating improperly abandoned legacy oil and gas wells that have a high risk of leaking oil and are hazardous to public health and safety and the environment. Within this context, staff is preparing for the 2018-2019 Fiscal Year and the execution of the Coastal Hazards and Legacy Oil and Gas Well Removal and Remediation Program with ongoing efforts to clean up the Summerland Oil Field. The scope of the Summerland Oil Field remediation is large and will take many years to achieve; however, the Becker well re-abandonment was a successful first step. Staff believes that the best approach is to focus on locating wells that are leaking, through regular aerial surveys, and that are feasible targets for remediation and re-abandonment and to move forward on a well by well basis.

In addition to the development of work plans for remediation of leaking legacy wells, Commission staff will continue its coastal hazards removal efforts and mitigation and monitoring operations in areas where coastal hazards have been previously inventoried. Coastal hazards are human-made structures that have been abandoned and or orphaned, including piers, jetties, groins, and facilities that are associated with the past oil extraction and other operations that pose threat to public health and safety. These coastal hazards may include, but are not limited to, wood or steel piles or piling, sheet metal pilings, H piles and H beams, railroad irons, cables, angle bars, ties, pipes, pipelines, seep tent related structures, rip rap structures, wood beams, wood structures, groins, jetties, piers, oil and gas related infrastructure which are located along the California coastline. Many of the hazards are remnants of past oil and gas development while others are the result of development along the California coastline. The exposure of the hazards is tide and beach erosion dependent. The identified hazards may not get exposed simultaneously and require that this work be completed in stages when exposed. Commission staff also intends to update the nearly 20-year-old inventory more frequently to ensure that newly found hazards are added to the inventory and prioritized for removal and remediation.

Commission staff is also in the beginning stages of discussions with UCSB personnel regarding potential seep studies in the Ellwood area first and then expanding the studies as well as GIS mapping up and down the coastline of the State. This work may provide researchers with additional data about locations

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and activity levels of certain seeps and Commission staff is investigating whether forensic chemical analyses could help researchers ascertain where oil is coming from with greater specificity. The potential research is anticipated to help provide new and more technically sound evaluations of the California seep systems and their relationship to coastal ecosystems.

Finally, and perhaps most importantly, Commission staff will prepare regular reports regarding the programs within the SB 44 umbrella and believes that these reports will show the significant benefits conferred to the coastal ecosystem and the enhanced recreational opportunities for the citizens of California. A generalized project list for the next two years is provided below to help visualize the types of work that Commission staff envisions being a part of the realization of the SB 44 mandate and funding.

#	<b>SB 44 2-Year Project Objectives (Proposed)</b>	<b>Timeframe</b>
1	Summerland offshore dive survey and excavation of target sites based on 2018 and 2018 drone observations.	Summer 2018
2	Amend the Becker EIR document to a programmatic EIR that will include various engineering methodologies with associated environmental impacts.	Fall 2018
3	Seep studies by UCSB, Ellwood Field area. New studies to establish baseline conditions prior to well platform Holly well abandonments and decommissioning.	Fall 2018
4	Finalize contracts for mitigation monitoring, and hazard removal contractor.	3-year term
5	Re-inventory coastal hazards after winter storm beach scouring and update 2000 inventory. (Legacy infrastructure, not wells)	Winter 2018
6	Continue removal of coastal hazards as they become exposed.	Intermittent
7	Abandon Duquesne Wharf well 910.	Spring 2019
8	Continue coastal hazard inventory and removal.	Ongoing 2019
9	Continue seep studies and add offshore seep studies for Coal Oil Point area and other areas.	Summer-Fall 2019
10	Fabricate and build medium water depth offshore surf skid and work platform for Treadwell #10 well and subsequent wells (if justified by Engineering cost analysis).	Fall-Winter 2019
11	Prepare Treadwell #10 well/C.H. Olsson well for full abandonment.	Spring 2020
12	Abandon either Treadwell #10 well or C.H. Olsson well	Summer 2020-Summer 2022

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### **PROPOSED SOLICITATION OF INTEREST:**

The proposed Solicitation of Interest would seek proposals for engineering plans to abandon up to three wells at a rate of one per year (SOI). Appropriations to the coastal hazard and well remediation program are expected to be sufficient for both the well abandonment and other program activities that will draw on these funds. The target of three wells was selected to provide a reasonable time horizon for planning purposes.

The three wells proposed for abandonment are the C.H. Olsson 805, the Duquesne Wharf Well 910, and the Treadwell 10 Well. The C.H. Olsson and Duquesne wells are the two Legacy wells found actively leaking during the February 2017 investigation. The Treadwell 10 Well has been previously identified as a leaking Legacy well.

Based on the successful operations and lessons learned from the Becker well re-abandonment project, a marine approach may be the preferred method for performing the well abandonments; however, staff is eager to review all engineering proposals, specifically focusing on economic and technological feasibility, the smallest project footprint, and the fewest environmental impacts to Summerland Beach and the surrounding community.

### **STAFF ANALYSIS AND RECOMMENDATION:**

#### **Authority:**

Public Resources Code sections 6005, 6106, 6212, 6216, and 6301.

#### **Public Trust and State's Best Interests Analysis:**

The proposed SOI would seek proposals to develop engineering plans to abandon up to three wells at a rate of one per year in the Summerland Oil Field to eliminate a consistent source of leaking crude oil and methane gas. The County of Santa Barbara has closed the beach on several occasions due to the health risks posed by oil and gas in the area. Local residents frequently submit reports of noxious smells associated with hydrocarbons and with significant oil sheening on the water and the beach. These issues create negative impacts on the state's marine Public Trust resources and values, such as swimming, fishing, surfing, and other water-related recreational activities. Staff believes that the proposed SOI is consistent with the Public Trust Doctrine because it will facilitate implementation of the Coastal Hazards and Legacy Oil and Gas Well Removal and Remediation Program consistent with SB44 in furtherance of enhancing the local coastal marine environment, water-related recreation, and public access opportunities and reducing threats to public health and safety associated with these activities. For these reasons, staff

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recommends that the proposed Project is consistent with the common law Public Trust Doctrine and is in the best interests of the State.

**OTHER PERTINENT INFORMATION:**

1. This action is consistent with Strategy 1.1 of the Commission's Strategic Plan to deliver the highest levels of public health and safety in the protection, preservation, and responsible economic use of the lands and resources under the Commission's jurisdiction; and Key Action 1.1.4 to identify and abate hazards and associated liability on sovereign and school lands.
2. In August 2017, the Commission certified a programmatic EIR for the Becker and Legacy Wells Abandonment and Remediation Project, CSLC EIR No. 792, State Clearinghouse No. 2016101008 ([Item 82, August 17, 2017; EIR](#)). Staff expects to use this programmatic EIR for California Environmental Quality Act (CEQA) analysis of all Summerland Oil Field well abandonments, with possible addenda for engineering changes or environmental concerns particular to individual wells. Whether additional CEQA analysis will be needed cannot be known until an engineering plan is chosen.
3. Staff recommends that the Commission find that the delegation of authority to solicit proposals, negotiate, and award a contract is not a project as defined by CEQA because it is an administrative action that will not result in direct or indirect physical changes in the environment.

Authority: Public Resources Code section 21065; California Code of Regulations, title 14, section 15378, subdivision (b)(5).

**RECOMMENDED ACTION:**

It is recommended that the Commission:

**AUTHORIZATION:**

Authorize the Executive Officer or her designee to solicit bids, award, and execute all contracts, and take any other steps reasonably necessary, for the preparation of an engineering plan for permanent abandonment of up to three Legacy wells in the Summerland Oil Field, Santa Barbara County.