California STATE LANDS Commission

Report to the Legislature

SB 44—COASTAL HAZARDS AND LEGACY OIL AND GAS WELL REMOVAL AND REMEDIATION PROGRAM
2018

Introduction

SB 44 (Jackson, stat. 2017, ch. 645) provided funding to the State Lands Commission to administer a Coastal Hazards and Legacy Oil and Gas Well Removal and Remediation Program. The Legislature, when it passed SB 44, found that there is a critical need for funding to remove coastal hazards, to identify exact locations of legacy oil and gas wells that may be leaking, and to prioritize remediating wells with the highest risk. The funding will enable the Commission to gather additional data that is necessary to address the presence of oil along the coastline, determine where legacy wells are located and whether they are leaking oil, and prioritize remediation to address the highest risk wells first. The funding will also enable the Commission to survey and monitor offshore oil seeps in state waters, to contract for studies to determine oil seepage locations, rates, and environmental impacts, and pursue innovative solutions to address these natural seeps.

The bill added section 6212 to the Public Resources Code, which states that when the Legislature appropriates revenue the Commission shall, within two years, administer a coastal hazard and legacy oil and gas well removal and remediation program to do the following:

1. Complete an assessment of legacy oil and gas wells and other coastal hazards along the California coastline, including conducting aerial surveys and dives, and determine high-priority hazards and legacy oil and gas wells to remediate.

2. Survey, study, and monitor oil seepage in state waters and tidelands under the Commission's jurisdiction to determine oil seepage locations, rates, and environmental impacts; and partner with experts to facilitate innovative solutions.

3. In cooperation with the Division of Oil, Gas, and Geothermal Resources (DOGGR), 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.

SB 44 authorized $2,000,000 from the General Fund to the Commission's Kapiloff Land Bank Fund in fiscal year 2018-19 to be available, upon appropriation, for program administration. The bill provided for additional transfers in fiscal years 2019-20 through 2027-28 of amounts sufficient to bring the unencumbered balance to $2,000,000. The Commission received the first $2,000,000 appropriation on July 1, 2018, pursuant to the 2018-2019 Budget Act.

SB 44 requires the Commission to submit a report to the Legislature by January 1 of each year, until January 1, 2026, on the activities and accomplishments of the program for the prior year.[1] This report covers the Commission's activities pursuant to SB 44 from July 1, 2018 through December 31, 2018.[2]

Background and Program Plans

In the late 1800s, the area offshore of Summerland Beach contained hundreds of oil wells and related drilling infrastructure. Today, the coastline area retains the vestiges of that extensive offshore oil production. These are the unfortunate legacy of the rapid and intensive offshore oil development along the coastline that began just before the turn of the twentieth century, primarily at Summerland Beach in Santa Barbara County.

Most legacy oil and gas wells were abandoned in the early 1900s when oversight was nonexistent. Virtually no records exist regarding the drilling and abandonment of these wells. Removal, if any, varied from well to well and involved rudimentary procedures that fell well short of current health, safety, and environmental protection requirements. Based on the Commission's research, there are approximately 200 high priority legacy oil and gas wells (identified as Category 1 wells), that could, depending on their condition, leak oil into the marine environment, negatively impacting swimmers, surfers, recreational users, and marine and coastal wildlife and fish and their habitats, as well as causing environmental degradation and public health and safety hazards. Many other wells are categorized as medium (Category 2) to low (Category 3) priority wells because more information is available about the integrity and abandonment of these wells or because a responsible party is or may be available to address any leak that may occur.

The Commission is taking the initial steps necessary to fulfill the requirements set out in SB 44. The Commission's experiences over the past twenty years of coastal hazards removal and the recent success of the Becker Well Remediation Project will help to inform the framework and implementation of the Coastal Hazards and Legacy Oil and Gas Well Removal and Remediation Program. Building on the Commission's existing

[1] Program information, and this report, can be found at http://www.slc.ca.gov/Programs/Coastal_Hazards.html. Hard copies of this report can be obtained from the State Lands Commission at (916) 574-1800.

[2] The information contained in this report is based on the activities in the prior calendar year. In order to be consistent with the funding provided under the legislation, future reports will be based on each fiscal year running from July 1 through June 30.

legacy well inventory, the Commission plans to use regular aerial surveys to develop baseline data for releases from legacy wells or seeps, which will help determine whether a well is leaking oil. Once point sources are located, diving teams will determine whether the releases are from a known legacy well or a seep outcrop. Once a point source is identified, the Commission will determine how best to access the leaking wells. Water approaches, for example, have different considerations and require different forms of mitigation than land-based approaches. Once an engineering plan, including alternatives, has been developed, the Commission can determine what impacts may arise and modify existing CEQA documents as necessary. Once the planning is complete, the Commission will hire a contractor to execute the plug and abandonment activities, in coordination with DOGGR's oversight, and secure all necessary permits for the work. If the release is determined to be from a seep, the location will be GPS tagged for further study.

The Commission is also updating its coastal hazards index because recent significant storms have exposed additional aged oil and gas infrastructure underlying many central coast beaches. The Commission is working to complete the remediation of at least one of the three known leaking legacy wells at Summerland Beach by the close of the 2018-2019 Fiscal Year. Uncertain weather conditions, work windows, and permitting requirements, may, however, cause delays.

In fulfillment of the requirements of SB 44, this report contains a synopsis of steps taken and steps planned, to date. The Commission has been working to secure the expertise needed to implement the following elements required by SB 44, but still has much to do.

Program Accomplishments—2018

a. Complete an assessment of legacy oil and gas wells and other coastal hazards along the California coastline, including conducting aerial surveys and dives, and determine high-priority hazards and legacy oil and gas wells to remediate.

i. Legacy Oil and Gas Wells (Legacy Oil Well Engineering Project)

On September 21, 2018, the Commission published a solicitation to hire a consultant firm to prepare detailed engineering analysis and abandonment plan for identified Category 1 legacy wells, cost estimates, and support to update the Environmental Impact Report associated with abandoning legacy wells. The Legacy Oil Well Engineering Project receivables will allow the Commission to investigate the character, complexity, and costs associated with remediating various legacy wells, enabling the Commission to plan and prioritize future well abandonments based on severity and cost. The same firm that completed the Becker Well Remediation Project, InterAct PMTI, is the firm chosen for the Legacy Oil Well Engineering Project. The Commission is in the process of finalizing negotiations for an on-call 4-year contract to investigate and analyze additional legacy wells. Beginning January 2019,

InterAct will work to develop abandonment solutions for three Category 1 wells off Summerland Beach. The development of the abandonment plans for these known leaking wells will be used as the basis for future CEQA work, up to and including a programmatic EIR.

ii. Coastal Hazards (legacy infrastructure, not including wells)

Coastal hazards are the remnants of artificial coastal structures that have been abandoned and orphaned. These hazards are typically buried in the coastal surf zone and include wood or steel pilings, H piles and H beams, railroad irons, cables, angle bars, ties, pipes, pipelines, seep tent related structural remnants of rip rap structures, wood structures, groins, jetties, piers, and oil and gas related infrastructure located along the California coastline.

Hazard exposure is tide and beach erosion dependent. Many hazards are only exposed during the high tidal erosion that occurs during winter, although the Commission can respond to hazards year-round.

The Commission has hired Cushman Contracting Corporation, on-call, for a 3-year term to respond and remove coastal hazards as they are identified. Identified hazards are usually removed by using small excavators or loaders. Beginning on December 18, 2018 thru December 21, Cushman Contracting removed approximately 66 steel H beams, 36 rail road irons, 28 wooden pilings and 2 pipeline pieces from two sites, Ellwood Beach, west of the Ellwood Pier and Ellwood Beach, east of the Ellwood Pier (Sites 4 and 5 as referenced in the 2002 adopted Mitigated Negative Declaration). This four-day removal project cost approximately $56,000.00 to complete.

In the first half of 2019, Commission staff and Cushman Contracting will develop a plan to update the Commission's coastal hazards index, based on the most recent information, as well as develop a methodology and process to quickly mobilize aerial review of impacted coastal areas following large storm events.

b. In cooperation with the Division of Oil, Gas, and Geothermal Resources, 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.

The Commission and DOGGR, the state agency with regulatory authority over well abandonment, work collaboratively when planning and implementing well plug and abandonment work. For example, the Commission worked closely with DOGGR to remediate the Becker Well, a leaking legacy well offshore Summerland Beach in Santa Barbara, and is working closely with DOGGR to plug and abandon the Rincon wells. The Commission plans to work closely with

DOGGR as it develops abandonment solutions, in consultation with InterAct, for the three identified Category 1 wells off Summerland Beach.

c. Survey, study, and monitor oil seepage in state waters and tidelands under the Commission's jurisdiction to determine oil seepage locations, rates, and environmental impacts; and partner with experts to facilitate innovative solutions.

i. Seep Study Program

The Commission is seeking to coordinate with a University of California institution or a California State University program to conduct baseline oil seep quantification studies along the California coastline. The purpose of the research is to develop techniques to accurately quantify oil and gas volumes from seep locations using spectrometry, submersible and aerial drone technology, and other advanced techniques. Another purpose is to develop mapping and GIS layers for the most active seeps. The techniques developed through such a study should help to create a standard application that can be applied to various geographic locations along the California coast and will help advance the methodology and application of locating and quantifying ocean oil and gas seeps.

Two-Year Plan

Below is a proposed summary of future program activities.

#	Description	Timeframe
1	Retain an Oil & Gas Engineering Consultant for the Legacy Oil Well Engineering Project	4th Qtr. 2018 – 1st Qtr. 2019
2	Contract with a UC or CSU to develop the seep study project. Seep studies are intended to establish baseline conditions and a better understanding of coastal seeps.	1st Qtr. 2019
3	Summerland offshore dive survey and excavation of target sites based on 2018 and 2019 drone observations.	1st -2nd Qtr. 2019
4	Transition the Becker Well EIR to a programmatic EIR that will include engineering methodologies with associated environmental impacts.	2nd Qtr. 2019
5	Re-inventory coastal hazards after winter storm beach scouring and update 2000 inventory.	1st Qtr. - 2nd Qtr. 2021
6	Abandon well (Duquesne Wharf area) using Becker Well abandonment methodology.	2nd Qtr. 2019
8	Prepare Treadwell #10 well for full abandonment.	2nd Qtr. 2020
9	Finish the abandonment of Treadwell #10 and CH Olsson well.	3rd Qtr. 2020