

STATE OF CALIFORNIA
Budget Change Proposal - Cover Sheet
 DF-46 (REV 08/15)

Fiscal Year 2016/17	Business Unit 3480	Department Conservation	Priority No. 10
Budget Request Name 3480-010-BCP-BR-2016-MR		Program 2425 - OIL, GAS, AND GEOHERMAL RESOURCES	Subprogram 2425010 - REGULATION OF OIL AND GAS OPERATIONS

Budget Request Description

Orphan Well Remediation

Budget Request Summary

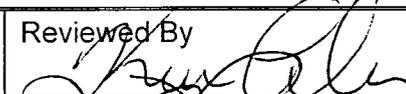
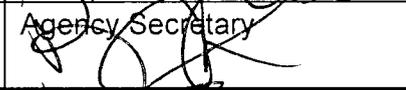
The Department of Conservation's (Conservation) Division of Oil, Gas, and Geothermal Resources (Division) requests an increase of \$1,000,000 from the Oil, Gas, and Geothermal Administrative Fund (OGGA) to remediate hazardous orphaned wells. Additionally, Conservation requests provisional language to increase the expenditure limit on orphan well remediation. No position authority is requested.

Requires Legislation <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Code Section(s) to be Added/Amended/Repealed	
Does this BCP contain information technology (IT) components? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>If yes, departmental Chief Information Officer must sign.</i>	Department CIO	Date

For IT requests, specify the date a Special Project Report (SPR) or Feasibility Study Report (FSR) was approved by the Department of Technology, or previously by the Department of Finance.

FSR SPR Project No. Date:

If proposal affects another department, does other department concur with proposal? Yes No
Attach comments of affected department, signed and dated by the department director or designee.

Prepared By 	Date 4/6/16	Reviewed By 	Date 4/6/16
Department Director 	Date 4/6/16	Agency Secretary 	Date 4/6/16

Department of Finance Use Only

Additional Review: Capital Outlay ITCU FSCU OSAE CALSTARS Dept. of Technology

BCP Type: Policy Workload Budget per Government Code 13308.05

PPBA	Date submitted to the Legislature
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A. Budget Request Summary

The Department of Conservation's (Conservation) Division of Oil, Gas, and Geothermal Resources (Division) requests an increase of \$1,000,000 from the Oil, Gas, and Geothermal Administrative Fund (OGGA) to remediated hazardous orphaned wells. Additionally, Conservation requests provisional language to increase the expenditure limit on orphan well remediation. No position authority is requested.

B. Background/History

The Division regulates oil, gas, and geothermal well operations throughout the State and administers laws for the conservation of petroleum and geothermal resources. As authorized in Public Resources Code (PRC) Section 3106, one of the Division's missions is to prevent damage to life, health, property, and natural resources by supervising wells. Specifically, Conservation requires that wells are properly drilled, operated for production and injection purposes, repaired, and plugged and abandoned. Furthermore, the Division enforces oilfield lease regulations to protect health, safety, and the environment.

Division 3, Chapter 1, Article 4.2 of the PRC authorizes the Division to plug orphan wells. This Article was chaptered in 1976; the program has been running continuously since that time.

Prior to 2008-09, PRC Section 3258 limited annual Division expenditures to abandon orphaned wells at \$500,000. As part of the 2008 Budget Act, trailer bill language was adopted such that the expenditure limit was raised to \$2 million per year. Subsequently, the Budget Act of 2012 extended the \$2 million limit through 2014-15. The expenditure limit reverted to \$1 million per year in 2015-16.

Oil, Gas, and Geothermal Administrative Fund Resource History
(Dollars in thousands)

Program Budget	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16
Authorized Expenditures	26,677	28,957	34,278	35,882	53,851	53,699
Actual Expenditures	22,904	27,643	32,264	35,724	48,473	-
Revenues	25,286	29,055	30,552	30,931	61,607*	68,951*
Authorized Positions	164.9	177.9	195.9	194.8	244.9	266.0
Filled Positions	133.3	141.8	153.2	176.5	184.8	-
Vacancies	31.6	36.1	42.7	16.0	61.9	-

*Previous Years' Authorized Expenditures reflect adjusted Budget Act numbers. Revenue covers fund appropriations to the Air Resources Board and State Water Resources Control Board

C. State Level Considerations

Oil and gas production in California is a \$34 billion annual industry, employing more than 25,000 people - with an annual payroll of \$1.5 billion. California is the fourth largest oil-producing state in the nation, producing about 625,000 barrels per day and 507 million cubic feet per day of natural gas. However, California is a "net importer" of oil and gas, consuming 1.8 million barrels of oil per day, and more than 6 billion cubic feet of natural gas per day. Property and other tax payments to the State and local governments from the industry amount to about \$800 million annually. Proper oversight is critical to the safe, effective, and efficient exploration and production of California's oil and gas resources.

ENVIRONMENTAL PROTECTION INDICATORS FOR CALIFORNIA (EPIC)

This proposal does not affect any type I, II, or III Environmental Indicators.

This proposal does not affect any other State agencies.

D. Justification

Problem Statement

Many existing orphaned wells pose a serious and ongoing hazard, both to public health and the environment. Conservation currently manages an inventory of orphaned wells on its website, link at: <ftp://ftp.consrv.ca.gov/pub/oil/orphan/Orphan2010.pdf>. Some orphaned wells are in high density, populated areas. Some orphaned wells can also leak greenhouse gases and contaminate groundwater. The costs to remediate orphaned wells can vary greatly, ranging from a few thousand dollars to remediate rural, shallow wells, to hundreds of thousands of dollars to remediate complicated urban wells. Land acquisition costs alone can be significant. Additionally, newly orphaned wells add to the inventory.

Over time, the condition of an orphan well can deteriorate to the point where the well can fail and become hazardous. Such a situation occurred in 2004 in the City of Huntington Beach. An orphan well, "Krik" 80, blew out when a well-head valve failed. An oily mist blew over a nearby neighborhood, coating homes, cars, and trees with oil. The well blew for a few hours until the Division could get a rig to come out on an emergency basis to stop the flow. The well was then plugged with cement and properly secured.

Solution

This proposal will restore the Division's orphaned well resources to \$2 million annually, allowing Conservation to remediate additional wells on the existing orphaned well and inventory. This would address the hazards that these wells present. Specifically, by increasing the amounts dedicated to this activity, Conservation can make significant progress on those high-priority, hazardous wells in densely populated areas.

Additionally, pursuant to PRC Section 3250, orphan wells are considered public nuisances, making the plugging and abandoning of orphan wells, and remediating any environmental impact, a priority for the Department and the State.

The Division updates its orphan well list every year. This list is verified by each district office using well management databases and field knowledge on the status of operators. If a well has a defunct operator, the well becomes an orphan well. Currently, the Division is aware of 108 orphan wells in the State based on a survey of district deputies.

The cost to plug and abandon wells can vary significantly. On average, the Division spends \$35,000 to plug and abandon a well; however, these efforts can cost up to hundreds of thousands of dollars per well due to extenuating circumstances such as significant damage to the well, property damage necessary to plug and abandon the well, and previously failed plugging attempts. Over the past three fiscal years, the Department spent an average of \$130,000 per well (range from \$43,000 to \$619,000 per well). The latter case required a contract amendment of more than \$455,000 to address issues identified after plugging and abandonment commenced.

Using the average cost to plug and abandon a well, the Department will need at least up to \$3.8 million to plug and abandon the existing orphan well inventory. This figure does not include wells that are orphaned in the coming years, nor does it consider unexpected costs to plug and abandon a well, which can be

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significant. As the Division ramps up work on plugging and abandoning orphan wells , it will discover additional wells that need remediation and proper plugging and abandonment.

Plugging and abandoning orphan wells requires very specialized knowledge, skills, and technologies due to the high risk and challenge of handling hazardous materials with potential blowout and contamination to the environment. The size and features of the orphan well elimination project may have an impact on the well abandonment contractors in the State, because there are few companies with this specialty.

This proposal supports Goal 5 of the Division's Strategic Plan: expanding the enforcement program for the maintenance of active lease facilities and remediation of orphan lease facilities, including wells, pipelines, tanks, and other surface equipment.

E. Outcomes and Accountability

Outcomes:

- Provides increased funds so that all existing orphan wells are properly plugged and abandoned, pursuant to the Legislature's intent, as stated in PRC Section 3250.
- Decreases the risk of another 'Krik" 80 well blowout.
- Prevents damage to the environment from leaking greenhouse gas emissions, and surface or groundwater contamination resulting from oil leaking from a deteriorated well.

Accountability:

- The existing orphan well program continues to successfully plug and abandon orphan wells. This BCP will continue the success of the program by enabling it to remediate more orphan wells plugged each year.
- Periodic meetings with Division orphan/idle-well monitoring engineers will occur to provide for consistency among the district offices.
- On October 1, 2017, the Division will report to the Legislature on the estimated number of orphan wells and provide a timeline for orphan well abandonment.
- On October 1, 2022, the Division will report to the Legislature on the number of orphan wells remaining, the estimated costs of abandoning those orphan wells, and a timeline for future orphan well abandonment with an updated schedule of goals.

F. Analysis of All Feasible Alternatives

Alternative #1: Provide an appropriation increase of \$1,000,000 to be used for remediation of orphan wells.

Pros:

- Facilitates the remediation of 108 existing wells and new orphan wells.
- Decreases liability that exists due to orphan wells (possible blowouts or groundwater contamination).
- Decreases the dangers associated with orphan wells.
- Properly remediating these wells can lead to aesthetic improvements, since wells tend to be eyesores when they are located in residential areas.
- Provides a source of funding for new wells that become orphaned.

Cons:

- Imposes higher assessment fees on the oil and gas industry.

Alternative #2: Do nothing. The Division maintains authority to spend about \$1 million per fiscal year on orphan well plugging.

Pros:

- Lower cost to the oil industry.
- The current program will continue reducing the orphan well inventory, at a slower rate.

Cons:

- Possible exposure to financial liabilities. (e.g. If an orphaned well blows out, the Division could be responsible for controlling the well, including remediation of damage that the well could cause. This situation can cost millions of dollars).

Alternative #3: Seek funding from other sources such as the federal government.

Pros:

- No additional cost to the oil industry.

Cons:

- Requires that a new funding source (such as the federal government) be found.
- Previous reviews have not been successful in securing outside funding sources.

G. Implementation Plan

Provide spending authority on July 1, 2016, or upon passage of the 2016 Budget Act. This orphan well remediation would be immediately implemented by reviewing the current inventory of wells to be plugged across the Division's districts with the monitoring and participation of the Orphan/Idle Well Committee. Prioritize wells that are pose the highest public health and/or environmental hazards to the state. The Division will then enter into service contracts with qualified contractors through the bidding process.

H. Supplemental Information (*Check box(es) below and provide additional descriptions.*)

None Facility/Capital Costs Equipment Contracts Other _____

I. Recommendation

Alternative #1: Provide an appropriation increase of \$1,000,000 to be used for remediation of orphaned wells .