



Planning Commission Staff Report – July 28, 2022

County of Ventura • Resource Management Agency • Planning Division

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SUBJECT: Public Hearing to Consider and Make Recommendations to the Board of Supervisors Regarding Amendments to the Non-Coastal Zoning Ordinance (PL21-0099) and Coastal Zoning Ordinance (PL21-0100) Related to Permit Terms, Surety and Insurance Requirements for Oil and Gas Operations.

A. PROJECT INFORMATION

1. **Applicant:** County of Ventura
2. **Location:** Countywide
3. **Request:** Planning Division staff requests that your Commission review this staff report and its attachments and adopt a resolution (see Exhibit 1) recommending that the Board of Supervisors (Board) adopt the recommended actions for proposed amendments to the Non-Coastal Zoning Ordinance (NCZO, Sections 8107-5.4, 8107-5.6.5, 8107-5.6.11 and 8107-5.6.12) and the Coastal Zoning Ordinance (CZO, Sections 8175-5.7.5 and 8175-5.7.8) related to permit terms, surety and insurance requirements for oil and gas operations (included in Exhibits 3 and 4 of this staff report); and recommend that the Board direct the Planning Division to commission a professional evaluation to identify and prioritize idle wells in unincorporated Ventura County that should be plugged and abandoned pursuant to state law.
4. **Review /Decision-Making Authority:** Pursuant to the NCZO and the CZO, your Commission is required to review, conduct a public hearing on, consider, and make recommendations to the Board regarding the proposed zoning ordinance amendments. The Board, at a subsequent public hearing, will consider your Commission's recommendations and decide whether to adopt, not adopt, or adopt with modifications the proposed amendments.
5. **History and Background:** On November 10, 2020, the Board directed the Resource Management Agency (RMA) to return to the Board with draft amendments to the NCZO and the CZO addressing three topic areas related to oil and gas operations in the unincorporated area: (1) limit new discretionary permits for oil and gas operations to 15 years; (2) increase the amount of compliance/site restoration surety and insurance from what is currently required by County ordinance; and (3) incorporate measures to assure the timely permanent plugging and restoration of oil and gas wells that have been idle for 15 years or more. The November 10, 2020 Board letter is attached as Exhibit 2. To assist with the development of these zoning amendments, RMA retained the professional services of Catalyst Environmental Solutions (Catalyst).

Catalyst staff, led by Dr. Dan Tormey, have extensive experience in the environmental aspects of all types of oil and gas development, including site assessment and cleanup, risk assessment, hydraulic fracturing and produced water management, pipelines, liquid natural gas terminals, refineries, natural gas storage, and retail facilities. Catalyst has worked on these issues in Ventura County, elsewhere in Southern California, and worldwide. Dr. Tormey advises all levels of government in California on oil and gas issues, including the Governor's Office and State Legislature, the Coastal Commission, and local governments. He was on the Steering Committee for the California Council on Science and Technology (CCST) study on hydraulic fracturing in California; was appointed by the Department of Conservation to the recently formed Underground Injection Control Independent Review Panel (created pursuant to Senate Bill 83, 2015-2016 Reg. Session); and was selected as a peer reviewer for the CCST study on water use in oil and gas operations in California.

6. **Project Description:** This section presents a summary of the proposed zoning amendments organized by topic area, along with a discussion of the information that was analyzed for each area. The ordinances amending the NCZO and the CZO have been prepared in legislative format and are attached herein as Exhibits 3b and 4b, respectively. (Exhibits 3a and 4a are clean versions of the NCZO and CZO respectively with legislative formatting removed.) The NCZO and CZO legislative amendments are substantively identical. However, the CZO version includes non-substantive amendments to the "Average Noise Level" table on page 13 of Exhibit 4b to correct a typographical error in the existing CZO.

There are several new state laws that have been enacted to address the management of oil and gas operations, including plugging and abandonment of wells, the management of idle and long-term idle wells, and financial assurances. To provide context for the proposed zoning amendments, Exhibit 5 provides brief summaries of key features of these state laws.

Understanding the State's role, as well as that of the County and the Ventura County Air Pollution Control District (VCAPCD), in the management and oversight of oil and gas operations is important context for your consideration. The California Geologic Energy Management Division (CalGEM) is mandated to supervise the drilling, operation, maintenance and abandonment of oil, gas and geothermal wells within California. CalGEM has jurisdiction over plugging and abandonment of wells (Cal. Code Regs., tit. 14, § 1723), collecting bonds for oil and gas operations in the state, maintaining the State's Idle Well Management Program, issuing plugging and abandonment orders, and ultimately plugging and abandoning orphan wells.

The Planning Division regulates oil and gas operations through both the NCZO and the CZO. Both ordinances contain similar permitting provisions, which include but are not limited to those addressing setbacks, waste handling, financial assurance requirements, site maintenance and restoration, accident reporting, light and dust control, noise, signage, screening, and fencing. The County also requires sureties and liability insurance for oil and gas operations.

The VCAPCD has regulatory authority over air quality and emissions aspects of oil and gas facilities, which includes wells, tanks and loading racks, sumps/pits/ponds, internal combustion engines and flares.

Definitions for some key terms used throughout this staff report are also provided here to aid your Commission and the public in review:

- **Wells** are all wells utilized for oil and gas exploration and production purposes, including but not limited to exploration, production, injection, and observation wells.
- **Active wells** are those that are drilled, completed, and in use.
- **Deserted wells** have been identified by CalGEM for operator failure to pay required idle wells fees or failure to respond to a plug and abandonment order.¹
- **Idle wells** have not produced oil or gas for 24 consecutive months or more.
- **Long-term idle wells** (LTIW) have been idle for eight years or more.
- **Orphan wells** have no financially viable operator of record either due to an operator's bankruptcy and/or decision to relinquish a lease without complying with the requirement to properly plug and abandon the well(s). Orphan wells must be formally identified by CalGEM, and none have yet been formally identified in the County.
- **Plugged and Abandoned wells** are those that have been permanently sealed and closed pursuant to regulatory standards.

Lastly, many of the facts presented in this staff report include footnoted references, which are attached herein as Attachment A.

a. Topic Area 1: Limit new discretionary permits for oil and gas operations to 15 years.

There are currently 25 oil companies operating in active oil fields located in unincorporated Ventura County. These oil and gas facilities operate under the authority of 96 existing conditional use permits or special use permits (CUPs) granted by the County from the late 1940s to present. As noted above, on November 10, 2020, the Board directed staff to revise the County's zoning ordinances to limit the term of new discretionary permits and approvals for oil and gas exploration and development operations to 15 years except for permits and approvals issued for post-closure activities. Based on the Board's discussion during the November 10, 2020 hearing, the proposed amendments allow for subsequent 15-year CUP renewal terms at the end of the initial 15-year term.

¹ Pursuant to Public Resources Code section 3237, there are additional metrics CalGEM can use to determine if a well has been deserted, but the numbers presented herein represent these two as reported by CalGEM in their 2019 Idle Well Management Program Report.

The proposed regulations apply to the totality of operations that are governed by a given CUP. In accordance with zoning ordinances' current CUP modification provisions, the renewal of an existing CUP is a discretionary action that is subject to permit approval findings and requires some level of environmental review pursuant to the California Environmental Quality Act (CEQA). The proposed amendments allow the County, during the CUP renewal process, to review, revise, add, or otherwise modify a CUP to reflect a range of conditions, including the current physical condition of the site and surroundings, the potential availability of new applicable technologies, and any applicable legal and regulatory requirements, including General Plan policies and ordinance provisions that may exist at the time of permit renewal.

To avoid situations in which oil and gas operations continue for a prolonged period following the expiration of an existing CUP term while the County processes a CUP renewal application, the proposed amendments require an operator to submit application materials 12 months prior to an existing CUP's expiration date. Required materials include, but are not limited to, a completed discretionary permit application, complete project description, and a complete list of wells. In addition to the submittal of application materials, an applicant will also be required to diligently pursue permit application completion and provide timely responses to the County's information requests.

Although the duration of CUP terms for oil and gas operations are not currently addressed in either the NCZO or CZO, the term of typical oil and gas CUPs granted by the County has ranged from 20 to 30 years. Many older oil and gas CUPs granted in the late 1940s through the mid-1960s lack expiration dates. These permits, which have been referred to as "antiquated" or "legacy" permits, will not be subject to the proposed 15-year maximum CUP term because under the County's existing zoning ordinances, the permits do not expire and thus do not require a discretionary renewal, which is the permitting event during which the maximum 15-year term would otherwise be applied.

One consideration related to establishing CUP terms is the estimated amount of time it takes for an operator to recoup its investment in the permitted operation. This can be referred to as the amortization of capital investment (ACI). Although there are several accounting methods that can be used to calculate amortization, in general, ACI occurs when cumulative income from an investment is sufficient to offset the initial capital investment and to provide a return on that investment to the owner.

Planning Division staff were able to identify one relevant publicly available ACI study: the recent "Capital Investment Amortization Study for the City of Culver City Portion of the Inglewood Oil Field", a 2020 study that concludes the simple payback period for wells drilled prior to 1977 was about five years. For wells drilled after 1977, their models determined that "*ACI...has been achieved within a short time.*" As the study explains, although there can be significant variability in the rate of return among individual wells, over 60 percent of the post-1977 wells they analyzed also achieved ACI within five years.²

² "Capital Investment Amortization Study for City of Culver City Portion of the Inglewood Oil Field", May 2020. Baker & O'Brien, Inc., at p. 33.

The Inglewood Oil Field in Los Angeles County is approximately 1,000 acres, 78 acres of which are in Culver City. It has operated since 1924 and apart from its size, it is comparable in underlying petroleum geology and types of operations to other Southern California oil fields including Ventura County. Therefore, a duration of 15 years for new and renewed CUPs (even independent of the possibility of an operator obtaining additional 15-year renewal periods), is reasonable to realize ACI depending on the capital investment and the price of oil during the time period.

b. Topic Area 2: Increased Surety and Insurance for Permit Compliance and Site Restoration

To evaluate the County's proposed surety and insurance requirements, which are described in detail below, it is helpful to first understand the status of the State's existing financial resources available to address plugging and abandonment of orphan wells, and its bonding and fee requirements for oil and gas operators. Pursuant to Assembly Bill (AB) 2729 (2016), several new bonding and fee payment provisions were created to address the State's liability to properly plug and abandon wells that are orphaned by operator bankruptcy or failure to act. Some notable provisions are listed below and are also described in greater detail in Exhibit 5.

- Operators must file a \$25,000 bond with CalGEM for a well less than 10,000 feet deep and \$40,000 for each well that is 10,000 or more feet deep.
- Alternatively, an operator can file a blanket indemnity bond based on the number of wells it owns throughout the state. Blanket bond amounts range from \$200,000 for 50 or fewer wells to \$3,000,000 for more than 10,000 wells.
- Operators of idle wells are required to either pay annual fees to the State for each idle well or file an Idle Well Management Plan, which outlines an operator's plan to manage and eliminate idle wells (i.e., either plug and abandon or bring back into production).
- Idle well fees increase the longer a well remains idle and range from \$150 for an idle well of seven years to \$1,500 for a well that has been idle for 20 years or more.
- Idle well fees are paid into the Hazardous and Idle-Deserted Well Abandonment Fund (HIDWAF), which CalGEM uses to plug and abandon orphan wells. This fund currently has a total of approximately \$8,000,000 for use statewide.
- The State also maintains an administrative fund (*Oil, Gas, and Geothermal Administrative Fund*), from which \$5,000,000 can be spent annually by CalGEM (pursuant to Senate Bill [SB] 47) to plug and abandon orphaned wells.

It is helpful to compare these financial resources (in the form of operator bond obligations and funds established for the purpose of plugging and abandoning wells) against the State's recent cost estimate of \$974 million to plug and abandon approximately 5,356 currently known orphaned, deserted, and potentially deserted wells statewide.³ This

³ CalGEM PowerPoint presentation: "CalGEM Oil and Gas State Abandonment Planning"; April 6, 2022

\$974 million figure does not include the estimated cost to plug and abandon any wells that have not yet been identified by CalGEM as orphaned or deserted. The \$13,000,000 in the two State funds listed above represents just over one percent of what CalGEM estimates it will cost to properly plug and abandon currently known orphaned and deserted wells.

Ventura County's Current Surety and Insurance Requirements

County-required financial sureties are intended to guarantee the operator's performance of permit and other regulatory requirements including post-closure obligations such as well abandonment, equipment removal, and site restoration in the event the operator is unable or unwilling to perform them. (The terms "surety" and "bond" are used interchangeably herein.) County-required liability insurance for oil and gas operations is required to address potential operator liabilities and environmental damage arising from oil and gas operations.

With respect to **surety requirements**, both the NCZO and CZO (Sections 8107-5.6.5 and 8175-5.7.8(e), respectively), currently state that *"...a bond or other security in the penal amount of not less than \$10,000.00 for each well that is drilled or to be drilled. Any operator may, in lieu of filing such a security for each well drilled, redrilled, produced or maintained, file a security in the penal amount of not less than \$10,000.00 to cover all operations conducted in the County of Ventura..."*

Regarding **liability insurance requirements**, both the NCZO and CZO (Section 8107-5.6.12 and 8175-5.7.8(l), respectively), currently require that *"the permittee shall maintain for the life of the permit, liability insurance of not less than \$500,000 for one person and \$1,000,000 for all persons and \$2,000,000 for property damage. This requirement does not preclude the permittee from being self-insured."*

As noted above, in November 2020, the Board directed the Planning Division to increase the amount of required liability insurance and surety to cover both oil and gas permit compliance and site restoration costs. Supervisors Bennett and Parks noted in their November 2020 Board letter that the surety amount currently specified *"is no longer an adequate amount to address noncompliance or site restoration and should be appropriately increased to cover both instances of permit or ordinance non-compliance, and site restoration upon termination of a...permit."* (Exhibit 2, pg. 3).

Furthermore, in a recent Board hearing related to a CUP renewal for Carbon California (June 22, 2021), the Board noted that an increased financial surety was appropriate to help ensure proper well abandonment. This permit renewal was conditioned such that this operator would be subject to the increased surety amount set by the County if these proposed ordinance amendments were approved.

Proposed Surety and Insurance Requirements

Based on the Board's direction, the proposed zoning amendments would apply new or enhanced surety and insurance requirements to operators of both new and existing oil and gas facilities and operations. The County has the legal authority, under its

constitutional police powers, to impose these increased insurance and financial security obligations on all existing operations without violating operators' property rights because these requirements: (a) would not alter or otherwise impair an operator's ability to produce oil and conduct its operations under its existing CUPs; (b) these requirements protect the public health and safety by helping avoid environmental harm and nuisance-type situations from occurring later based on failure to comply with preexisting legal requirements; (c) the regulations do not expand the County's powers because the County can already modify an existing permit to protect the public health and safety and to prevent a public nuisance pursuant to NCZO Section 8111-6.2 and CZO Section 8181-10.1, subject to the same hearing and notice procedures for approval of the original permit; and (d) as described in the proposed amendment language and as required under the County's current zoning ordinances, the sureties listed below would be exonerated (i.e., released) after all regulatory requirements pertaining to proper well abandonment and site restoration have been met.

As part of the analysis for revising these financial assurance obligations, staff considered the actions and operations the financial assurances are intended to cover, cost estimates associated with those actions and operations, and what the potential unfunded costs may be to properly plug and abandon wells and remediate and restore production sites in the event a permittee is unable or unwilling to do so. Planning Division staff also consulted with County Risk Management, as well as other insurance consultants to identify both recommended updates to insurance requirements and information related to the estimated costs of insurance coverage for oil and gas operators.

Due to the importance of ensuring that the proposed ordinance revisions are consistent with State programs and law, Resource Management Agency staff and County Counsel briefed the State's Oil and Gas Supervisor (Supervisor). The Supervisor supported the County's proposed surety approach and noted that the County is well within its jurisdictional authority to require them. The Supervisor provided additional guidance on other proposed ordinance revisions, which Planning Division staff has incorporated.⁴

Finally, staff also considered the findings from the State's legislative summary for AB 2729 (2016). As described below, at present there are approximately 4,000 active and idle wells in Ventura County⁵, of which 1,275 are LTIWs that have been idle for 15 years or more⁶. The legislative summary states the following:

Idle wells can pose a risk to the environment and public health. Improperly maintained well casings can rust or crack, allowing contaminants such as uranium, lead, iron, selenium, sulfates and

⁴ Personal communication with State Oil and Gas Supervisor, June 8, 2022.

⁵ CalGEM WellSTAR Data Dashboard.

https://www.conservation.ca.gov/calgem/Online_Data/Pages/WellSTAR-Data-Dashboard.aspx. Accessed June 1, 2022.

⁶ CalGEM. 2022. Preliminary 2022 IWMP Inventory. Includes only wells that were idle on January 1, 2022. Available online: <https://filerequest.conservation.ca.gov/RequestFile/2843955>. Accessed June 14, 2022.

radon to enter into freshwater formations. Improperly maintained wells can also leak methane, a potent greenhouse gas. Unlike wells being produced, where operators will likely see changes in production levels if a leak or damage occur, leaks or damage to idle wells are more likely to go unnoticed. Testing of wells that are not producing or injecting is not required until the well officially becomes idle after five years. The longer a well remains idle, the more likely it is to be deserted by the operator. Leaving idle wells in this state can threaten the environment and public health, and, if deserted, present a significant cost for the State to plug and abandon wells and remediate any environmental damage.⁷

For these reasons the State Legislature, in Public Resources Code section 3250, found and declared that:

“[H]azardous and certain idle-deserted oil and gas wells and hazardous and deserted facilities, as defined in this article, are public nuisances and that it is essential, in order to protect life, health, and natural resources that those oil and gas wells and facilities be abandoned, reabandoned, produced, or otherwise remedied to mitigate, minimize, or eliminate their danger to life, health, and natural resources.”

Based on these considerations and in response to the Board’s direction, Planning Division staff is proposing that new sureties be required to address the following: 1) surface restoration and remediation; 2) well plugging and abandonment; and 3) a supplemental surety for wells that have been idle for at least 15 years (referred to herein as “15+ idle wells”) to account for their increased risk of desertion.

Surface Restoration Surety

CalGEM generally regulates subsurface oil and gas operations, including proper well plugging and abandonment. The County generally regulates oil and gas operations that occur above ground. The County is generally preempted from controlling how subsurface oil and gas operations and activities are conducted.

The purpose of the proposed Surface Restoration Surety is to establish funds for **surface** demolition, removal of structures and equipment, and restoration/remediation of both well sites and related facilities if the operator does not fulfill these requirements at the end of its permitted operations. Surface infrastructure associated with oil and gas operations can include large pieces of equipment and significant development, including but not limited to storage tanks, water treatment systems, gas separation and treatment systems, waste storage areas, pipelines, and appurtenant infrastructure. Notably, both the NCZO and

⁷ Bill Analysis for AB 2729. April 4, 2016. Assembly Committee on Natural Resources. Available at: http://www.leginfo.ca.gov/pub/15-16/bill/asm/ab_2701-2750/ab_2729_cfa_20160331_163551_asm_comm.html

CZO include proposed amendments related to the scope of surface restoration activities. The intent of these amendments is to provide additional clarity regarding restoration and remediation requirements and process. (See NCZO Section 8107-5.6.11 and CZO Section 8175-5.7.8.)

As noted above, the County’s practice has been to require a \$10,000 bond for each operator regardless of the size of the operator’s facilities, the number of its wells, or the number and type of other surface infrastructure that may require demolition, removal, and restoration. Pursuant to the Board’s direction, Planning Division staff is recommending the amount of the Surface Restoration Surety be increased to cover a greater share of the estimated costs for demolishing, removing, and restoring surface aspects of oil and gas facilities in the event an operator fails to conduct proper and complete site restoration and remediation.

To balance an interest in linking surety amounts to operational considerations (e.g., numbers of wells, amount of equipment) and the need for efficiency and practicality of processing and managing sureties, staff is proposing that the Surface Restoration Surety amount be based on the number of wells, excluding properly abandoned wells, an operator has within unincorporated Ventura County as set forth below. The number of operators shown in Table 1 below indicates the current number of operators within the county that fall into a particular grouping based on well-count information available from CalGEM⁸.

Table 1 – Surface Restoration Surety Categories

Total Number of Active/Idle Wells per Operator	Number of Operators	Proposed Surface Restoration Surety
1-5	8	\$100,000
6-10	4	\$185,000
11-20	4	\$300,000
21-50	5	\$500,000
51-100	1	\$1 million
101-200	0	\$3 million
201-400	0	\$5 million
≥401	3	\$10 million

To establish these proposed surety amounts, staff considered information provided by Catalyst, who estimates that the current cost of restoring a typical oil and gas site with ten wells, one flare, and assorted tanks used for fluids, oil, and water is approximately \$186,500 (see Exhibit 6). The surety amounts are roughly half for operators with fewer

⁸ Estimates of well counts are based on the number of active and idle wells per operators with active CUPs in the county. Active wells per CalGEM AllWell data downloaded on June 2, 2022, available at <https://gis.conservation.ca.gov/portal/home/item.html?id=0d30c4d9ac8f4f84a53a145e7d68eb6b> and idle wells per CalGEM. 2022. Preliminary 2022 IWMP Inventory. Includes only wells that were idle on January 1, 2022. Available online: <https://filerequest.conservation.ca.gov/RequestFile/2843955>. Accessed June 14, 2022.

wells. Surety amounts for the larger well groupings assume that economies of scale would be realized, thus resulting in lower per well restoration costs.

Existing operators in the county will be required to submit a complete inventory of their wells – including active, idle, plugged and abandoned, injection, exploratory, etc. – for review by the Planning Division no later than 60 days after the effective date of the proposed ordinance. The information submitted by the operators will be confirmed using both CalGEM records and County permit records. The Planning Director will verify the required surety amount and provide written notification to the operator, after which time the operator will have 180 days from the date of notification to submit the required surety to the Planning Division. This same procedure will be followed for the additional sureties described below. New operators will be required to submit the Surface Restoration Surety, as well as the others described below, prior to commencement of permit activities.

Well Abandonment Surety

While the State is responsible for managing the technical aspects of subsurface plugging and abandonment of wells, including orphaned wells, the California Constitution authorizes local governments to “make and enforce within its limits all local, police, sanitary, and other ordinances and regulations not in conflict with general laws [i.e., federal and State].” Further, the statute addressing the State’s requirements for well abandonment bonds expressly contemplates and recognizes that local governments may require their own well abandonment sureties (see Pub. Res. Code, § 3205.3(c)(8)). The County is therefore authorized to require operators to post sureties to help ensure that sufficient funds exist for the operators’ wells to be properly plugged and abandoned. The County’s exercise of this authority will help ensure that the wells are timely and properly decommissioned in accordance with State law.

Planning Division staff is recommending that a separate Well Abandonment Surety be required to reflect the likelihood that some wells in unincorporated Ventura County will be orphaned and that the State will lack adequate resources to properly and timely plug and abandon them, as described above (see pg. 5). Staff is recommending this surety to address the negative impacts that orphaned wells pose to the environment, human health and safety, and the potential impairment of subsequent use or redevelopment of the affected land.

There are several important issues related to operator bankruptcy that are relevant to the discussion of orphaned wells. As recently reported by Haynes and Boone, LLP, a company that has monitored North American oil and gas producer Chapter 11 bankruptcies since 2015, there have been 266 oil and gas producer bankruptcies over the last six years⁹, including California Resources Corporation (CRC), one of the state’s major oil and gas producers. (CRC sold its Ventura County oil and gas operations to CalNRG in late 2021.)

⁹ Haynes Boone. Oil Patch Bankruptcy Monitor. January 31, 2022. https://www.haynesboone.com/-/media/project/haynesboone/haynesboone/pdfs/energy_bankruptcy_reports/oil_patch_bankruptcy_monitor.pdf?rev=61c2606a5be547598c8d716d1a795c39&hash=97ECA4B149560404B19497FA37CB2B50

In addition, between 1985 and 2022, field production of crude oil in California fell 67 percent, according to the U.S. Energy Information Administration.¹⁰ As production falls, profits often also fall. This can result in larger operators selling their holdings to smaller companies that may not have the financial resources to properly plug and abandon wells or restore well fields after operations cease. One such bankruptcy impacted oil operations on Rincon Island, which included both on- and offshore facilities near the community of Mussel Shoals.

The operator – which had acquired the lease through a 2002 bankruptcy sale – itself filed for bankruptcy in 2016 after ceasing operations there in 2008. Thus far, decommissioning operations, which are managed by the California State Lands Commission (because the facilities are located on State-owned coastal land), have cost State taxpayers \$27 million.¹¹ This same operator was involved in another oil business called HV1 Cat Canyon in Santa Barbara County. It also filed for bankruptcy in 2019, leaving over 200 orphaned wells. Neither Santa Barbara County nor CalGEM have sufficient funds to plug and abandon all of them.¹²

There is another instructive example of the cost of orphaned wells in the Placerita Oil Field near the city of Santa Clarita in Los Angeles County. CalGEM determined 56 wells and associated facilities were orphaned in 2016, and final clean up began five years later in 2020. The project is expected to conclude this year at an estimated cost of \$3.3 million, which will be drawn from the State's HIDWAF.¹³ (As noted above, this fund currently has a total of approximately \$8 million for use statewide.)

One recent report commissioned by CalGEM and conducted by the California Council on Science and Technology (CCST) regarding orphan wells in California, states the following:

“The preliminary analysis performed here finds that 5,540 wells in California may already have no viable operator or be at high risk of becoming orphaned in the near future. The likely plugging and abandonment costs for these wells, based on the State’s historical experience with orphan wells, exceed the available bond funds by a factor of 10 or more... The total net difference between plugging costs and available bonds across all oil and gas wells in the state is about \$9.1 billion... This estimate ignores environmental or health damages

¹⁰ US Energy Information Administration. California Field Production of Crude Oil.
<https://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=MCRFPCA2&f=M>

¹¹ *Ventura County Star*, “Oil bankruptcies leave environmental cleanup bills to California taxpayers.” June 27, 2021, M. Olalde.

¹² Personal communication with State Oil and Gas Supervisor, June 8, 2022

¹³ <https://www.conservation.ca.gov/index/Pages/News/CalGEM-Oversee-Plugging-Abandonment-56-Oil-Gas-Wells-LA-County.aspx>

that could be caused by orphan wells, which is a poorly understood category of potential impacts...”¹⁴

Moreover, as CCST points out, *“recovering costs from previous operators may be costly and time-consuming in practice.”¹⁵*

Numbers of Wells in Ventura County

Currently, there are 8,690 oil and gas wells in Ventura County that have been identified by CalGEM and included in its statewide reporting system, WellSTAR (Well Statewide Tracking and Reporting system) Data Dashboard¹⁶. This total includes both offshore and onshore wells and includes 249 wells identified as “cancelled”, which means the permit was cancelled prior to drilling of the well. Approximately 91 percent of all wells (active, idle, and plugged and abandoned) are within unincorporated Ventura County. Of the total number of wells in the county, just over half are plugged and abandoned and just under 20 percent (1,679 wells) are active. There are approximately 2,267 idle wells, of which 1,520 are considered LTIW¹⁷. Using information available from CalGEM¹⁸, staff determined that three operators, CalNRG (the company that recently acquired the Ventura County oil and gas leases formerly owned by CRC¹⁹), Aera Energy LLC, and Carbon California, LLC account for approximately 73 percent of all LTIW in Ventura County.

Figure 1 shows the status of the county’s plugged and abandoned, active, and idle, wells.

¹⁴ California Council on Science and Technology (CCST). 2018. Orphan Wells in California: An Initial Assessment of the State’s Potential Liabilities to Plug and Decommission Orphan Oil and Gas Wells. pp. ix and 29.

¹⁵ CCST, pg. 17

¹⁶ CalGEM WellSTAR Data Dashboard.

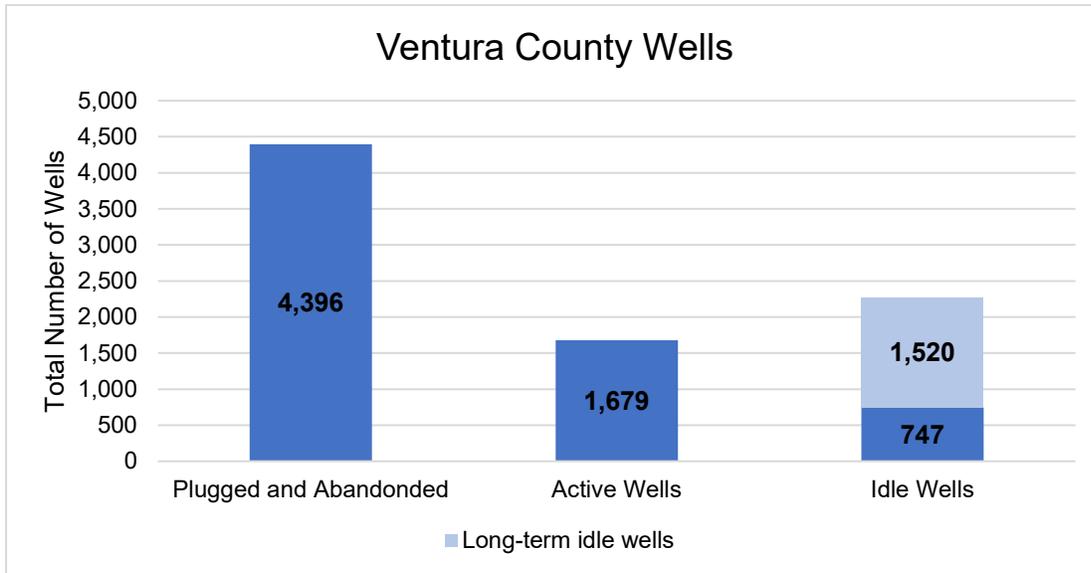
https://www.conservation.ca.gov/calgem/Online_Data/Pages/WellSTAR-Data-Dashboard.aspx. June 14, 2022.

¹⁷ CalGEM. 2022. Preliminary 2022 IWMP Inventory. Includes only wells that were idle on January 1, 2022. Available online: <https://filerequest.conservation.ca.gov/RequestFile/2843955>. Accessed June 14, 2022.

¹⁸ CalGEM. 2022. Preliminary 2022 IWMP Inventory. Includes only wells that were idle on January 1, 2022. Available online: <https://filerequest.conservation.ca.gov/RequestFile/2843955>. Accessed June 14, 2022

¹⁹ CRC. 2021. <https://investors.crc.com/news/news-details/2021/California-Resources-Corporation-Reports-Second-Quarter-2021-Results-Increases-Free-Cash-Flow-Guidance-Raises-Share-Repurchase-Program-to-250-Million-and-Announces-Strategic-AD-Transactions/default.aspx>. Accessed September 27, 2021.

Figure 1 – Well Status in Ventura County



As of December 2019, CalGEM had not identified any orphaned wells in Ventura County, although, as stated in its 2021 Idle Well Management Program Report, “...the number of orphan wells identified ... only reflects those orphan wells for which CalGEM has gathered sufficient information to issue a finding of desertion, and for which CalGEM has completed a financial solvency test.” In its 2021 Idle Well Management Program Report, CalGEM identified 439 wells in Ventura County as potentially deserted or deserted due to the operator’s failure to pay idle wells fees.²⁰

Estimated Costs of Plugging and Abandoning Idle Wells

In addition to knowing the numbers of idle and orphan wells, it is also important to understand the potential costs associated with plugging and abandoning them. Planning Division staff analyzed plugging and abandonment costs based on several assumptions and scenarios. One important assumption reflects the likelihood that neither deserted wells, LTIWs, nor even idle wells will be placed back into production. As the CCST study states, “most long-term idle wells are unlikely to return to production even with large increases in output prices or improvements in production technology”. For example, the CCST study estimates that the likelihood of a well that has been idle for eight years returning to production is approximately 20 percent and decreases to about 13 percent if the well has been idle for at least 25 years.

As noted above, CalGEM data indicate that there are 1,520 LTIWs in Ventura County with another 747 wells that have been idle for at least two years (a total of 2,267 wells that are either idle or long-term idle). While these wells have not been orphaned yet,

²⁰ CalGEM. 2021. Idle Well Management Program Report. Idle and Long-Term Idle Wells in California. Reporting Period: January 1, 2019, to December 31, 2019. Prepared Pursuant to Assembly Bill 2729 (Ch. 272, Stats. Of 2016).

should existing operators be unable or unwilling to pay the total costs for proper plugging and abandonment in the future, potential costs could be substantial, as described below.

There is a range of potential plugging and abandonment costs for wells in the state. To estimate costs for Ventura County’s purposes, staff considered payments made by CalGEM to contractors to plug and abandon a total of 50 orphaned wells throughout the state between 2017-2019. These plugging and abandonment costs (i.e., contractor payments) averaged approximately \$143,300 per well.²¹

Using this per well plugging and abandonment cost, staff calculated what costs might total countywide. Table 2 below summarizes the information described above and presents these estimated plugging and abandonment costs.

Table 2 – Summary of Well Types and Plugging and Abandonment Cost Estimates in Ventura County

Well Type*	Number of Wells	Percentage of wells requiring closure (likely not returned to production) ^	Total number of wells requiring closure	Total Estimated Closure Cost (based on \$143,300/well)
Idle Wells	747	70%	523	\$74.9 million
Long Term Idle Wells	1,520	80%	1,216	\$174.2 million
Deserted Wells	439	100%	439	\$62.9 million

*Well types not depicted in table include 4,396 plugged/abandoned wells; 1,679 active wells

^ CCST, 2018. Orphan Wells in California: An Initial Assessment of the State’s Potential Liabilities to Plug and Decommission Orphan Oil and Gas Wells.

It is reasonable to anticipate that operators will properly plug and abandon some portion of these idle wells. However, as noted above, only three operators control approximately 73 percent of the LTIW in Ventura County. Thus, if 80 percent of these wells do not return to production in the near future and require closure, estimated plugging and abandonment costs totaling approximately \$128 million, would be borne by a very small subset of operators countywide.

Moreover, although the State has a program wherein operators can either pay fees to the State or plug and abandon a certain percentage of their idle wells annually (i.e., Idle Well Management Plans), the timeframe allowed by the State to plug and abandon wells results in very long timelines to complete this work. For example, Aera Energy has 2,697 LTIWs throughout the state, including just under 300 LTIW in Ventura County. Using the

²¹ CalGEM. 2021. Idle Well Management Program Report. Idle and Long-Term Idle Wells in California. Reporting Period: January 1, 2019, to December 31, 2019. Prepared Pursuant to Assembly Bill 2729 (Ch. 272, Stats. Of 2016).

rates of closure required by CalGEM, it could take the company 126 years to plug and abandon all of its wells statewide.²²

Comparing estimated closure costs to the \$13 million that the State currently has available to pay for permanent closure of orphan wells throughout the entire state, current State funds would fall far short of the money needed to properly plug and abandon orphan wells. Moreover, even if the deserted wells that CalGEM has identified in the county are the only wells likely to become orphaned (439 wells), the unfunded abandonment liabilities are still substantial (~\$63 million) and far exceed the amount the State has collected to cover orphan well closure statewide.

Proposed Well Abandonment Surety Amount

To establish a Well Abandonment Surety amount, Planning Division staff considered all the factors outlined above, including numbers of existing idle and deserted wells, environmental risks posed by orphan wells, the State's bonding obligation for individual operators as well as insufficient orphan well resources that exist statewide, and estimated abandonment costs of \$143,300 per well. Based on these considerations, staff is recommending a Well Abandonment Surety of \$36,000 per well, not to exceed \$5 million for any individual operator, which is approximately 25 percent of the estimated costs of closure per well (i.e., \$143,300 multiplied by 0.25).

To assess how this proposed surety amount might impact an operator's total obligation when combined with required bonds it pays the State, staff provides the following analysis. When the State's highest bond obligation (i.e., \$40,000) is added to the County's proposed \$36,000 surety amount, the total combined surety of \$76,000 is approximately 53 percent of the estimated costs to plug and abandon a well. However, bond obligations could be even lower if an operator chooses to acquire a blanket indemnity bond from the State. For example, the State's blanket bond amount for an operator with 50 wells is \$200,000, or \$4,000 per well. It is important to note that all but four of the operators in Ventura County have between one and 51 wells. For the three largest operators in the county (each with over 400 wells), the proposed Well Abandonment Surety ceiling amount of \$5 million equates to a per well bond amount of \$12,500 (assuming 400 wells). With no bond ceiling, an operator with 400 wells would have a Well Abandonment Surety obligation totaling over \$14 million.

Long-Term Idle Well Abandonment Supplement Surety

To address the Board's direction to encourage the timely plugging and abandoning of long-term idle wells that have been idle for 15 years or more, Planning Division staff is recommending that operators of LTIWs that have been idle for at least 15 years provide an additional "Long-Term Idle Well Abandonment Supplement Surety." This recommendation is discussed in more detail below under Topic Area 3 below.

²² CalGEM. 2022. Preliminary 2022 IWMP Inventory. Includes only wells that were idle on January 1, 2022. Available online: <https://filerequest.conservation.ca.gov/RequestFile/2843955>. Accessed June 14, 2022.

The well status information requested from operators and collected from CalGEM (i.e., total number of wells excluding properly plugged and abandoned wells) will be used to confirm the amount needed for the Surface Restoration Surety, the Well Abandonment Surety, and the Long-Term Idle Well Abandonment Supplement Surety.

Insurance

Existing minimum County insurance requirements, which cover liability arising from oil and gas operations for personal injury and damage to property, are currently set at \$500,000 for one person and \$1,000,000 for all persons and \$2,000,000 for property damage. As with surety obligations, the Board directed Planning Division staff to recommend updated insurance requirements. Planning staff engaged with the CEO’s Risk Management Office, as well as other consultants knowledgeable about oil and gas insurance requirements to evaluate insurance coverages. Further, insurance coverage amounts specific to oil and gas operations in other jurisdictions were examined, which identified other coverages including those related to pollution, control of well during drills, and umbrella policies. Table 3 sets forth relevant examples from other jurisdictions.

Table 3 – Insurance Coverage Examples for Oil and Gas Operations

Jurisdiction	Commercial/Comprehensive/ General Liability	Pollution Liability	Control of Well Liability	Excess/Umbrella Liability
City of Carson, California	\$2 million single occurrence, \$2.5 million in aggregate	\$2 million single occurrence, \$2.5 million in aggregate	\$40 million per occurrence Maximum deductible of \$500,000 per occurrence	\$25 million
City of Dallas, Texas	\$2 million per occurrence, \$2 million in aggregate	\$10 million per occurrence	\$10 million	\$25 million per occurrence, \$25 million annual aggregate
Cities of Midlothian and Burleson Texas	\$1 million	\$1 million per loss, with annual aggregate of \$10 million	\$5 million per occurrence \$10 million in aggregate	\$5 million if operator has a stand-alone pollution liability policy, \$10 million if it does not
Boulder, Colorado	\$1 million per occurrence, \$2 million aggregate	\$25 million per occurrence, \$25 million in aggregate	\$25 million per occurrence, \$25 million in aggregate	\$25 million
Larimer County, Colorado	\$1 million	\$5 million per incident	\$10 million	\$25 million
Santa Fe, New Mexico	\$10 million	\$10 million	N/A	N/A

Furthermore, recent examples of environmental incidents at oil and gas operations demonstrate the significant costs that can potentially be incurred in such an event. The 2015 oil spill near Refugio Beach in Santa Barbara County resulted in at least \$962 million in cleanup costs,²³ and the costs incurred due to a 2015 well failure at the Aliso Canyon natural gas facility in Porter Ranch have exceeded \$1 billion.²⁴

Given the potential significant cost of an incident at an oil and gas facility, and keeping in line with amounts imposed by other jurisdictions specific to oil and gas operations, Planning Division staff recommend the following insurance requirements:

General Liability for Oil & Gas Businesses: General Liability, with at least \$2,000,000 each occurrence and \$4,000,000 general aggregate;

Environmental Impairment: Pollution Liability Policy with coverage not less than \$10,000,000.

Control of Well: (initial drill or well modification) coverage of a minimum of \$10,000,000 per occurrence.

Excess (or umbrella) Liability Insurance: providing excess coverage for each of the perils insured by the preceding insurance policies with a minimum limit of \$25,000,000.

Operators would have 90 days from the effective date of ordinance adoption to provide evidence of these coverages.

c. Topic Area 3: Measures Addressing Long-Term Idle Wells and Coordination with CalGEM to Prioritize Wells for Closure

As part of the Board's direction in November 2020, staff was directed to "incorporate measures [into an ordinance] to assure the timely permanent plugging and restoration of oil and gas wells that have been idle for 15 years or more." This issue is particularly pertinent in Ventura County as illustrated by CalGEM data showing that approximately 84 percent of LTIWs have been idle for at least 15 years.

Specifically, the Board contemplated requiring that operators submit a mitigation plan that would include an inventory of wells that have been idle for 15 years or more, cost estimates for remediation, and a schedule for their proper plugging and restoration. As noted above in the discussion related to sureties, the Planning Division will be requiring permittees to submit well inventories and will base the surety amounts on these inventories. However, CalGEM possesses exclusive statutory authority regarding the specifics of the timing and implementation of plugging and abandonment work. In this regard, Public Resources Code section 3205.7(a)(1) states that beginning July 1, 2022, CalGEM "*shall begin requiring each operator of an oil or gas well to submit a report to the supervisor that demonstrates the operator's total liability to plug and abandon all wells and to decommission all attendant production facilities, including any needed site*

²³ <https://www.pacbiztimes.com/2015/06/27/refugio-oil-spill-cleanup-costs-near-100-million/>

²⁴ <https://www.reuters.com/article/us-sempra-alisocanyon-natgas/socalgas-raises-estimated-cost-of-aliso-canyon-natgas-leak-to-1-07-billion-idUSKCN1SE27E>

remediation, pursuant to Section 3208 and Article 4.2 (commencing with Section 3250), as applicable, on a schedule determined by the supervisor.”

While CalGEM retains this exclusive statutory authority, the County retains a compelling interest in proper decommissioning of LTIWs to minimize the environmental and human health risks posed by such wells and to minimize the degree to which county land is impaired or remains unavailable for future uses. As noted above, approximately 84 percent (1,275) of the 1,520 LTIWs in Ventura County have been idle for 15 years or more. Not only will the likely costs of proper plugging and abandoning such a large number of LTIWs be significant, but orphan wells pose increased risks to groundwater, air and the surface environment. For example, older wells may have degraded well casings that allow oil or gas to leak; orphaned wells may still have old equipment and contaminated soils from small spills or other wastes at the surface; and studies around the country show that unplugged wells can leak methane into the environment.²⁵ As the U.S. Environmental Protection Agency notes, methane emissions can occur from the oil industry as a result of field production operations (e.g., gas venting from oil wells and storage tanks) and production-related equipment, such as pneumatic devices.²⁶ Furthermore, based on the 2015 greenhouse gas emissions inventory conducted specifically for unincorporated Ventura County (and included in the County’s General Plan Climate Action Plan), the estimated amount of methane emitted from oil and gas-related stationary sources (e.g., generated by fuel combustion and fugitive emissions) totaled 3,203 metric tons.²⁷

Despite the progress the State has made to better manage idle wells, as discussed above (e.g., AB 2729), there will likely remain a significant inventory of LTIWs in Ventura County that will take decades to properly decommission. For example, although Idle Well Management Plans specify a well decommissioning schedule, the schedule would still allow an operator to have wells legally idle for more than 15 years. In addition, an operator’s Idle Well Management Plan applies to its entire portfolio of LTIWs across the state. Accordingly, an operator may choose to concentrate on plugging and abandoning wells outside of Ventura County, leaving proper closure of wells in Ventura County for last.

Based on these considerations and the large numbers of LTIWs in the county that have been idle for at least 15 years, staff is recommending that operators provide an additional surety for these wells. This surety would be referred to as the Long-Term Idle Well Abandonment Supplement Surety and would require that operators provide a supplemental surety of \$15,000 for each 15+ LTIW well that has not already been properly plugged and abandoned, not to exceed a total cost of \$5M for any one operator. For administrative efficiency, County permittees will have the option of submitting one

²⁵ American Geosciences Institute. 2018. Abandoned Wells. <https://www.americangeosciences.org/geoscience-currents/abandoned-wells>

²⁶ USEPA. 2021. Primary Sources of Methane Emissions. <https://www.epa.gov/natural-gas-star-program/primary-sources-methane-emissions>. Accessed October 18, 2021.

²⁷ General Plan Attachment 1 to Appendix B Climate Change-PDF; pg. 36.

combined surety reflecting the amounts of both this Long-Term Idle Well Supplement Surety and the Well Abandonment Surety that are required for the permittee's operations.

Operators would have 60 days after the effective date of the ordinance to provide data to the Planning Director substantiating the number of 15+ LTIWs that would be subject to the LTIW Abandonment Supplement Surety. Once reviewed and approved by the Planning Director, the operator would have an additional 180 days to provide the required surety.

All proceeds from the Long-Term Idle Well Abandonment Supplement sureties, as well as the proceeds for the Well Abandonment sureties, to the extent any such sureties are forfeited and the proceeds collected by the County, would be held in trust by the County and used for the sole purpose of addressing the plugging and abandonment of the subject wells. Consequently, the County could contribute the funds to the State for the plugging and abandonment of the subject wells under the direction of CalGEM or could provide the funds to the property owner or other responsible party to fund the plugging and abandonment of the subject wells in accordance with State rules and requirements.

Estimated Costs of Financial Assurances in Context of Estimated Revenue

Based on insurance discussions with CEO Risk Management, the cost of insurance premiums can vary depending on a variety of well characteristics, including the number, age, and depth of wells, the financial position of the operator, as well as other protective measures an operator may have in place. Therefore, it is not possible to provide accurate cost estimates for insurance premiums.

However, to provide an example of what an operator in unincorporated Ventura County might pay for the proposed sureties, staff evaluated costs for an operator with ten wells. Almost half of the operators in the county operate between one and ten wells. The combined annual cost of the Surface Restoration Surety and Well Abandonment Surety for a ten-well operation is estimated to be between \$10,900 - \$21,800.²⁸ While these costs are higher than what oil and gas operators have historically paid to comply with the County's existing \$10,000 surety requirements, it is important to consider these costs in the context of the annual revenue an operator with ten wells might realize. Using data provided by the U.S. Energy Information Administration, estimated revenue for a typical ten-well operator is \$1.2M annually. This estimate is based on 50 barrels per day for a ten-well operation at an average market price of \$66 per barrel. (This is the approximate price per barrel over the ten-year period between 2012-2021.)²⁹ That said, as recently as

²⁸ This range is based on a \$185,000 surface restoration surety and \$360,000 well abandonment surety (\$36,000 x 10 wells) for a total surety of \$545,000. The range reflects operator costs of approximately 2-4% of the total surety amount. The total does not include the Long-Term Idle Well Abandonment Supplement Surety, as several of these operators do not have any 15+ LTIW.

²⁹ Estimate is based on 50 barrels per day for a 10-well operation at an average market price of \$66 per barrel. An estimated production of 5 barrels per well is derived from *U.S. Energy Information Administration. 2020. The Distribution of U.S. Oil and Natural Gas Wells by Production Rate. December.*

July 1, 2022, the price per barrel (West Texas Intermediate crude) was approximately \$108 per barrel.³⁰

For the three largest operators in the county, the estimated annual cost for all three sureties (including the Long-Term Idle Well Abandonment Supplement) would range from \$477,450 to \$600,000³¹, while estimated operator annual revenues from Ventura County wells range from \$34 million to \$211 million³².

Table 4 – Summary of Proposed Bond and Insurance Requirements

Financial Assurance Mechanisms	Amount	Estimated Cost to Operator	Time Allowed for Submittal
Surface Restoration Surety	\$100k - \$10 million Depending on size of operation	2-4 percent of bond amount	<u>Existing operators</u> : 180 days after written confirmation from County on well inventory; <u>New operators</u> : prior to commencing permit activities. Same for all bonds
Well Abandonment Surety	\$36,000 per well; not to exceed \$5 million per operator	2-4 percent of bond amount	See above
Long Term Idle Well Abandonment Supplement Surety	\$15,000 for 15-year+ idle wells; not to exceed \$5 million per operator	2-4 percent of bond amount	See above
Insurance Coverages	- General Liability for Oil & Gas Businesses (\$2-4 M) - Environmental Impairment (\$10M) - Control of Well (\$10M) - Excess (umbrella) Liability (\$25M)	Coverage costs based on size and complexity of operation, financial position of operator.	90 days for all operators

Approximately 50% of wells in California produce 1-5 barrels of oil per day. Average market price of \$66 per barrel is derived from U.S. EIA California Crude Oil First Purchase Price data available at https://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=pet&s=f005006__3&f=m

³⁰ <https://www.reuters.com/business/energy/oil-prices-rise-after-falling-3-previous-session-2022-07-01/>

³¹ Reflects operator costs of approximately 3% of the total surety amount for the three largest operators in the County.

³² Revenue estimates are based on operators' 2021 production volume provided by CalGEM WellSTAR Data Dashboard and assuming average market price of \$66 per barrel.

Coordinate with CalGEM to Prioritize Idle Wells for Closure

While not included in the proposed ordinance amendments or as part of the Board's November 10, 2020, direction (Exhibit 2), staff is requesting that the Board consider funding and directing the Planning Division to commission a professional evaluation to identify idle wells with "no reasonable expectation of being reactivated" that should be plugged and abandoned and to prioritize such wells for abandonment consistent with Public Resource Code section 3206.5 and other relevant state laws.³³ (Pursuant to California Code of Regulations section 1772.4 and Public Resource Code sections 3016, 3106, 3206 and 3206.1, CalGEM is currently in the process of establishing risk-based screening criteria to identify high-priority wells for plugging and abandoning.) This evaluation would provide a basis upon which the County could request that CalGEM prioritize well closure activities for idle wells in Ventura County. For example, the County could request that CalGEM first attend to idle wells with "no reasonable expectation of being reactivated" that are closest to sensitive receptors or those that may show evidence of deterioration.

B. ENVIRONMENTAL REVIEW PURSUANT TO THE REQUIREMENTS OF THE CALIFORNIA ENVIRONMENTAL QUALITY ACT

Pursuant to the requirements of the California Environmental Quality Act (Pub. Res. Code, §§ 21000-21178, "CEQA"), and State CEQA Guidelines (Cal. Code Regs., tit. 14, §§ 15000-15387), the proposed project was evaluated for compliance with CEQA. The proposed project consists of the County's adoption and implementation of the above-described NCZO and CZO amendments related to establishing a 15-year term for new and extended CUPs, and updated surety and insurance requirements for oil and gas operations. Because the proposed zoning amendments have the potential to result in a reasonably foreseeable indirect physical change in the environment, they are considered a CEQA "project" (Cal. Code Regs., tit. 14, § 15378, subd. (a)(1)). As explained below, however, the proposed NCZO amendment is CEQA exempt under CEQA Guidelines sections 15061(b)(3), 15307, and 15308 of the California Code of Regulations.

Planning Division staff has determined that the adoption of the proposed project is exempt from CEQA pursuant to CEQA Guidelines section 15061(b)(3) because it can be seen with certainty that there is no possibility the project may cause a significant effect on the environment. This is often referred to as the "common sense exemption." Importantly, "significant effect on the environment" is expressly defined by the Public Resources Code as that which effects "a substantial, or potentially substantial, adverse change in the environment." (PRC § 21068.) To the extent the proposed project indirectly affects the

³³ Public Resource Code section 3206.5 allows the County to request a list from CalGEM of idle wells that have "no reasonable expectation of being reactivated and formally request the supervisor to make a determination whether the wells should be plugged and abandoned."

environment, the effect is expected to be beneficial. The NCZO text amendments do not relax standards for environmental protection but rather would: (1) allow the County to conduct CEQA review at the time of a proposed CUP renewal, following expiration of the maximum 15-year term, to determine whether any new mitigation measures should be imposed to protect the environment; (2) require greater amounts of financial assurances to help ensure adequate funding for post-closure site restoration and remediation, and proper plugging and abandonment of wells; and (3) require greater insurance coverages to protect against unfunded environmental damage that could be caused by oil and gas operations. All of these new County regulations provide for greater protection of the environment compared to the County's existing regulations.

Moreover, because the project consists of regulations intended to benefit the environment, it is also exempt pursuant to CEQA Guidelines section 15307, *Actions by Regulatory Agencies for Protection of Natural Resources*, and section 15308, *Actions by Regulatory Agencies for Protection of the Environment*. These exemptions consist of actions taken by regulatory agencies to assure the maintenance, restoration, enhancement, or protection of natural resources and the environment. As described above, this project fully meets these criteria. Finally, staff has determined that no substantial evidence exists precluding the use of the above categorical exemptions based on the presence of unusual circumstances or any other exception set forth in CEQA Guidelines section 15300.2.

Exhibit 8 of this staff report contains a thorough analysis supporting these exemption findings.

The proposed CZO amendment constitutes an amendment to the County's Local Coastal Program (LCP). Section 21080.9 of the Public Resources Code (which is part of CEQA) exempts local governments from preparing an environmental impact report or other CEQA document in connection with an amendment to an LCP. Instead, certification of an LCP amendment by the California Coastal Commission (Coastal Commission) is required and is subject to Coastal Commission review for compliance with the California Coastal Act of 1972. The Coastal Commission's regulatory program for the preparation, approval and certification of LCPs has been certified by the Natural Resources Agency under Public Resources Code section 21080.5 as the functional equivalent of CEQA review.

C. ORDINANCE AMENDMENT FINDINGS

Both the NCZO and the CZO authorize the Board to amend these zoning ordinances "*whenever the public health, safety, or general welfare, good zoning practice, and consistency with the General Plan [or the Coastal Act, or Coastal Area Plan] justify such action...*" Pursuant to NCZO section 8115-0 and CZO section 8184-1, the Board must make certain findings in order to amend them.

The Board's ability to make these required findings pursuant to the NCZO is evaluated below. Although the basis for making the necessary findings and the determination of consistency is similar for the CZO, the CZO discussion is included separately as Exhibit

7 because it also requires additional findings for consistency with the Local Coastal Program and the Coastal Act. This is being done to facilitate the future review of CZO amendments by the California Coastal Commission.

1. The proposed amendment would not be detrimental to the public health, safety, or general welfare:

The zoning amendments would enhance the public health, safety and general welfare by amending the NCZO to do the following: (1) limit the terms of new and renewed CUPs for oil and gas operations to 15 years, thus allowing the County, at the time of proposed permit renewal, to determine whether the then-applicable NCZO permit approval findings can be met, and whether any new permit conditions should be imposed to mitigate environmental impacts or to implement then-applicable General Plan policies; (2) require greater amounts of financial sureties to help ensure adequate funding for post-closure site restoration and remediation, and for plugging and abandonment of wells; and (3) require greater insurance coverages to protect against unfunded environmental damage that could be caused by oil and gas operations.

Based on the foregoing, this finding can be made.

2. The proposed amendments constitute good zoning practice:

Over the last five years, the State Legislature has acknowledged the need to address the potential environmental risks and financial liabilities posed by oil and gas operations that are not properly decommissioned. More is now publicly known about the numbers of idle, long-term idle, deserted, and orphaned wells throughout the state and in Ventura County.

At the same time, there is growing evidence of the detrimental impacts of climate change, including impacts in Ventura County. As reported in the Ventura County Star, five of our county's warmest years have occurred since 2014, when the county set a record for its hottest average temperature. As climatologist William Patzert explains, there is a consensus among scientists that extreme events are becoming more frequent and more intense, including the heatwaves, droughts and severe storms that have hit Ventura County.³⁴

A warming climate is due in part to increasing emissions of greenhouse gases, including methane, a gas released as part of oil and gas operations. As noted above, GHG emission calculations conducted specifically for Ventura County in 2015 estimated that the amount of methane emitted from oil and gas related stationary sources totaled over 3,000 metric tons. Based primarily on climate change concerns, on April 23, 2021, Governor Gavin Newsom "requested that the California Air Resources Board (CARB) analyze pathways to phase out oil extraction across the state by no later than 2045."

³⁴ Ventura County Star, January 18, 2020, Cheri Carlson. "Earth just wrapped up its second warmest years. Here's what happened in Ventura County."

By authorizing a maximum 15-year term for new and renewed oil and gas CUPs, the zoning amendments allow the County, upon a permit's proposed renewal, to review the permit and project for consistency with applicable General Plan policies, land use development standards and requirements, and zoning ordinance provisions that may exist at the time of permit renewal. Additionally, the County would be able to review permits and projects for consistency with new state laws pertaining to these oil and gas operations. This would allow the County to review and modify oil and gas CUPs to reflect a range of physical conditions every 15 years, including those related to climate change, the status of the County's efforts to reduce greenhouse gas emissions, the permit compliance status of an operator, and the potential availability of new applicable technologies. Upon its 15-year review, the County could also determine that the findings could not be made to support permit renewal based on then-current circumstances including changes in state law.

The proposed zoning amendments also require greater amounts of financial sureties to help ensure adequate funding for post-closure site restoration and remediation, and for plugging and abandonment of wells; and require greater insurance coverages to protect against unfunded environmental damage that could be caused by oil and gas operations. By requiring additional funding and insurance to address these issues, the amendments will not only help avoid potential harm to the environment, health and safety, and private property interests, they will also help facilitate the redevelopment and reuse of former oil and gas production sites in the unincorporated area upon cessation of oil production. This will help foster economic growth, job creation, potentially provide for development of new housing and recreational opportunities, and otherwise allow for the beneficial use of former oil facilities located in the unincorporated area.

Based on the foregoing, this finding can be made.

3. The proposed amendment is consistent with the Ventura County General Plan:

Planning Division staff has determined that the proposed NCZO and CZO zoning amendments are consistent with General Plan Guiding Principles and relevant General Plan policies. The Ventura County General Plan includes 12 Guiding Principles that serve as touchstones for determining a project's consistency with the General Plan's goals, policies, and implementation programs. Five of these Guiding Principles provide consistency context for the proposed zoning amendments:

Conservation and Open Space - To conserve and manage the County's open spaces and natural resources, including soils, water, air quality, minerals, biological resources, scenic resources, as well as historic and cultural resources.

Hazards and Safety - To minimize health and safety impacts to residents, businesses and visitors from human-caused hazards such as hazardous materials, noise, air, sea level rise, and water pollution, as well as managing lands to reduce the impacts of natural hazards such as flooding, wildland fires, and geologic events.

Economic Vitality - To foster economic and job growth that is responsive to the evolving needs and opportunities of the County's economy and preserves land use compatibility with Naval Base Ventura County and the Port of Hueneme, while enhancing our quality of life and promoting environmental sustainability.

Climate Change and Resilience - To reduce greenhouse gas emissions to work toward achieving all adopted targets, proactively anticipate and mitigate the impacts of climate change, promote employment opportunities in renewable energy and reducing greenhouse gases, and increase resilience to the effects of climate change.

Environmental Justice - Commit to the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations and policies, protect disadvantaged communities from a disproportionate burden posed by toxic exposure and risk, and continue to promote civil engagement in the public decision-making process.

In addition to the Guiding Principles listed above, the proposed zoning amendments would most immediately and directly support the following General Plan policies:

COS-5.1 Soil Protection

The County shall strive to protect soil resources from erosion, contamination, and other effects that substantially reduce their value or lead to the creation of hazards. (RDR, SO)

COS-7.3 Compliance with Current Policies, Standards, and Conditions

The County shall require new or modified discretionary development permits for oil and gas exploration, production, drilling, and related operations be subject to current State and County policies, standards, and conditions.

COS-10.2 Community Greenhouse Gas Emissions Reduction Target for 2030

The County shall work toward achieving a community-wide GHG emissions reduction target of 41 percent below 2015 levels by 2030.

COS-10.4 Greenhouse Gas Reductions in Existing and New Development

The County shall reduce GHG emissions in both existing and new development through a combination of measures included in the GHG Strategy, which includes new and modified regulations, financing and incentive-based programs, community outreach and education programs, partnerships with local or regional agencies, and other related actions.

COS-10.3 Community Greenhouse Gas Emissions Reduction Goals for 2040 and 2050

The County shall work toward achieving longer-term, post-2030 community-wide GHG emissions reduction goals, as follows: 61 percent below 2015 levels by 2040, and 80 percent below 2015 levels by 2050.

HAZ-10.1 Air Pollutant Reduction

The County shall strive to reduce air pollutants from stationary and mobile sources to protect human health and welfare, focusing efforts on shifting patterns and practices that contribute to the areas with the highest pollution exposures and health impacts.

LU-17.3 Environmental Protection

The County shall apply environmental protection measures equally among geographic and socioeconomic sectors within designated disadvantaged communities of the county.

LU-17.4 New Incompatible Land Uses

The County shall not approve new discretionary projects within or in the immediate vicinity of existing residential areas, especially designated disadvantaged communities, introducing a new incompatible land use that could have substantial adverse health impacts on an area's residents.

LU-17.6 Negative Impacts from Potential Hazards

Within designated disadvantaged communities, the County shall work to reduce or prevent negative impacts associated with environmental hazards, including industrial and roadway generated pollution, to people who are living and working in close proximity to these uses.

LU-17.7 Brownfield Remediation

Within designated disadvantaged communities, the County shall promote the remediation and reuse of contaminated brownfield sites to spur economic development, expand natural open spaces and parks, community gardens, and other similar health-promoting community revitalization activities.

The proposed zoning amendments are consistent with, and would help to implement the General Plan's Guiding Principles and noted General Plan policies, as they would help ensure that the County's natural resources are protected over time by allowing the County to analyze new or renewed oil and gas exploration and development CUPs every 15 years for consistency with all applicable General Plan policies that may exist at the time of any required permit renewal, including any new or modified policies; conduct an evaluation at the time of proposed permit renewal to determine whether any new permit conditions are warranted to mitigate environmental and other potential adverse impacts, and whether such operations should continue in light of any new circumstances and state laws.

The proposed amendments also require greater amounts of financial assurances to help ensure adequate funding for post-closure site restoration and remediation, and for plugging and abandonment of wells; and require greater insurance coverages to protect against unfunded environmental damage that could be caused by oil and gas operations.

By requiring additional funding and insurance to address these issues, the amendments will not only help avoid potential harm to the environment, health and safety, and private property interests, they will also help facilitate the redevelopment and reuse of former oil and gas production sites in the unincorporated area upon cessation of oil production to allow for the potential beneficial use of the parcels containing former oil facilities located in the unincorporated area.

For the reasons articulated above, the proposed zoning amendments are also consistent with General Plan policies related to environmental justice and the County’s Designated Disadvantaged Communities (DDCs), including Policies LU 17.3, 17.4, 17.6, and 17.7 (see above). As noted, at the time of any required permit renewal, the County will conduct a thorough permit review and determine whether new permit conditions are needed to protect DDCs, and additional financial resources will be available to help ensure proper post-closure restoration. There are three DDCs currently identified in the General Plan including the communities of El Rio-Del Norte, Piru, and Saticoy. The table below identifies the numbers of wells within these communities.

Table 5 – Wells Located within Designated Disadvantaged Communities

DDC Community	Active Wells	Idle Wells	LTIW	Plugged and Abandoned Wells
El Rio/Del Norte	7	27	12	20
Piru	104	194	111	507
Saticoy	0	0	0	0

General Plan Policies Addressing Economic Vitality

The General Plan’s Economic Vitality Element contains policies addressing a broad range of economic issues including business development, infrastructure and resource needs, housing supply and job growth. Policy EV-1.1 incorporates the Ventura County Economic Vitality Strategic Plan (EVSP) into the General Plan, which contains several major goals to promote the regional economy including fostering targeted economic growth that supports the County’s commitment to quality of life and environmental sustainability.

The precise economic impacts associated with the proposed zoning amendments on the County’s oil and gas permittees are not known and depend on numerous industry and operator-specific variables. The proposed amendments addressing sureties and insurance requirements would have the most direct economic impact on operators, but as explained in this staff report, the costs of these requirements are reasonable, especially in the context of the operators’ estimated revenues derived from their oil and gas production in the unincorporated area. For example, the combined annual cost of the Surface Restoration Surety and Well Abandonment Surety for a ten-well operation is estimated to be between \$10,900 - \$21,800, while estimated annual revenue for an operation of the same size is \$1.2 million, based on a ten-year average market price per barrel of \$66. As noted above, as of July 1, 2022, the market price per barrel is approximately \$108. Estimated surety

costs for all proposed sureties for the three largest operators range from approximately \$487,000 - \$600,000, (based on surety cost of three percent of total surety amount), while estimated operator annual revenues from Ventura County wells range from \$34 million to \$211 million.

As explained above, the zoning amendments will not only help avoid potential harm to the environment, health and safety, and private property interests, they will also help facilitate the redevelopment and reuse of former oil and gas production sites in the unincorporated area upon cessation of oil production. Potential reuse of these sites to permitted or conditionally permitted uses as set forth in their respective specific zoning district land use matrices would allow for the economically beneficial use of parcels containing former oil facilities located in the unincorporated area.

D. PLANNING COMMISSION HEARING NOTICE and PUBLIC OUTREACH

The Planning Division provided a public notice regarding the Planning Commission hearing in accordance with Government Code section 65090, NCZO section 8111-3.1 and CZO section 8181-6.2.1. The Planning Division placed a legal advertisement providing notice of this public hearing in the *Ventura County Star* on July 15, 2022, and in Spanish in *Vida* on July 14, 2022.

A project web page (available in English and Spanish) was also available three weeks prior to the Planning Commission hearing (July 8, 2022), which provided access to the proposed ordinances. The web page also included detailed Frequently Asked Questions and Answers, which were available in English and Spanish. Staff also sent an email notification of the hearing to approximately 1,265 stakeholders on July 8, 2022.

As of the date this staff report was made available to the public, staff has received four written comments and three telephone inquiries regarding the project. The written comments are included in Exhibit 9.

E. RECOMMENDED ACTIONS

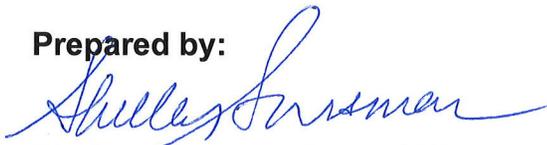
Based upon the analysis and information provided above, Planning Division staff recommends that the Planning Commission take the following actions:

1. **CERTIFY** that the Commission has reviewed and considered this staff report and all exhibits hereto, and has considered all other materials and public comments received during the public comment and hearing processes; and
2. **ADOPT** a resolution (Exhibit 1) recommending that the Board of Supervisors take the following actions regarding the proposed amendments to the Non-Coastal Zoning Ordinance and the Coastal Zoning Ordinance.

- a. **CERTIFY** that the Board has reviewed and considered the Board letter and all exhibits hereto, the Planning Commission staff report and all exhibits thereto, and has considered all other materials and public comments received during the public comment and hearing;
 - b. **FIND** that the adoption of the proposed ordinance amending the Ventura County Non-Coastal Zoning Ordinance (Exhibit 3) is exempt from the California Environmental Quality Act (CEQA) pursuant to CEQA Guidelines section 15061(b)(3) because it can be seen with certainty that there is no possibility the project may cause a significant effect on the environment; **FIND** that because the project consists of regulations intended to benefit natural resources and the environment, it is also categorically exempt from CEQA pursuant to CEQA Guidelines sections 15307 and 15308; **FIND** that no substantial evidence exists precluding the use of the above categorical exemptions based on the presence of unusual circumstances or any other exception set forth in CEQA Guidelines section 15300.2; and **FIND** that adoption of the proposed ordinance amending the Ventura County Coastal Zoning Ordinance (Exhibit 4) is statutorily exempt from CEQA pursuant to Public Resources Code section 21080.9 as an amendment to the County's Local Coastal Program;
 - c. **FIND** that the proposed ordinance amending the Ventura County Non-Coastal Zoning Ordinance (Exhibit 3) is consistent with the goals, policies and programs of the Ventura County General Plan and good planning practices and is in the interest of public health, safety and general welfare;
 - d. **FIND** that the proposed ordinance amending the Ventura County Coastal Zoning Ordinance (Exhibit 4) is consistent with the goals, policies and programs of the Ventura County General Plan, the Ventura County Coastal Area Plan, the Coastal Act (Exhibit 7) and good planning practices, and is in the interest of public health, safety and general welfare;
 - e. **ADOPT** the proposed ordinances amending the Ventura County Non-Coastal Zoning Ordinance (Exhibit 3) and Coastal Zoning Ordinance (Exhibit 4); and
3. **DIRECT** Planning Division staff, pursuant to Public Resources Code section 3206.5, to commission a professional evaluation to identify and prioritize Ventura County wells that should be plugged and abandoned, (i.e., those that have "no reasonable expectation of being reactivated"). This evaluation would be provided to the supervisor of CalGEM for a formal determination and identification of wells that should be plugged and abandoned in Ventura County.
 4. **SPECIFY** the Clerk of the Board of Supervisors at 800 S. Victoria Avenue, Ventura, CA 93009 as the location and custodian of the documents and materials that constitute the record of proceedings upon which these decisions are based.

This staff report has been reviewed by County Counsel. If you have any questions concerning the information presented above, please contact me at (805) 654-2481 or at Dave.Ward@ventura.org, or Shelley Sussman at (805) 654-2493 or at Shelley.Sussman@ventura.org.

Prepared by:



Shelley Sussman, General Plan
Implementation Section Manager

Reviewed by:



Dave Ward, AICP
Planning Director

Exhibits

- Exhibit 1 Planning Commission Resolution to Board of Supervisors
 - Exhibit 2 November 10, 2020, Board letter
 - Exhibit 3a Clean version of proposed ordinance amending the Non-Coastal Zoning Ordinance
 - Exhibit 3b Legislative format of proposed ordinance amending the Non-Coastal Zoning Ordinance
 - Exhibit 4a Clean version of proposed ordinance amending the Coastal Zoning Ordinance
 - Exhibit 4b Legislative format of proposed ordinance amending the Coastal Zoning Ordinance
 - Exhibit 5 Summary of recent State laws related to oil and gas operations
 - Exhibit 6 Unit cost estimates for surface remediation of oil/gas sites
 - Exhibit 7 Coastal Zoning Ordinance Amendment Findings and Consistency Analysis
 - Exhibit 8 Analysis supporting California Environmental Quality Act exemption
 - Exhibit 8a Footnotes cited in Exhibit 8 not otherwise included in Attachment A
 - Exhibit 9 Written comments submitted as of July 20, 2022, at 12:00 p.m.
- Attachment A - Footnote References for Staff Report and Exhibit 8