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Reply to: Ventura Office

November 9, 2020

Via Email

Ventura County Board of Supervisors
c/o Clerk of the Board
800 S. Victoria Avenue
Ventura, CA 93009
Email: clerkoftheboard@ventura.org

Re: *Item No. 47 of Ventura County Board of Supervisors November 10, 2020 Agenda*

Dear Madame Clerk:

On behalf of Carbon California Company, LLC and Carbon California Operating Company, LLC, please find below and attached comments for consideration by the Board of Supervisors concerning the proposed amendments to the County's zoning ordinance (the "Zoning Amendments") regarding oil and gas production.

Broadly speaking, the California Environmental Quality Act, or CEQA, requires local agencies such as the County to evaluate the potential impacts of certain decisions on the environment. The Board letter and proposed approval resolutions conclude that the Zoning Amendments are categorically exempt from CEQA pursuant to CEQA Guidelines section 15308. Section 15308 exempts from CEQA certain actions involving the maintenance, restoration, enhancement, or protection of the environment. In order to invoke this exemption, the County must demonstrate with the substantial evidence that its action assures the protection of the environment.

Notably, an action must be protective of the environment to be exempt under section 15308. The exemption does not apply to agency actions that involve adverse impacts on the environment or environmental trade-offs. That is, a project designed to improve one element of the environment cannot include a corresponding adverse environmental impact and still be exempt.

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Otherwise, an agency may circumvent the requirement in CEQA to consider mitigation measures and project alternatives that may lessen the potential adverse environmental impact.

For example, in *Save Our Big Trees v. City of Santa Cruz* (2015) 241 Cal.App.4th 694, a city could not rely on CEQA Guidelines section 15308 to exempt amendments to the city's heritage tree regulations because the regulations strengthened some provisions but weakened others. In *California Unions for Reliable Energy v. Mojave Desert Air Quality Management District* (2009) 178 Cal.App.4th 1225, the agency found exempt from CEQA a new rule regarding the use of road paving as a mitigation measure to offset fugitive dust emissions. The Court of Appeal overturned the exemption because newly-paved roads could lead to adverse environmental impacts from increased vehicle emissions. Finally, in *Dunn-Edwards Corp. v. Bay Area Air Quality Management District* (1992) 9 Cal.App.4th 644, CEQA Guidelines section 15308 could not exempt from CEQA new regulations designed to reduce volatile organic carbons (VOCs) in paint because the regulations could increase other VOC emissions.

Additionally, the exemption contained in Guidelines section 15308 is categorical, which means that it does not apply if any of the exceptions from CEQA Guidelines section 15300.2 are applicable. Section 15300.2, subdivision (c) invalidates the section 15308 exemption "where there is a reasonable possibility that the activity will have a significant effect on the environment due to unusual circumstances."

Pursuant to our Supreme Court's decision in *Berkeley Hillside Preservation v. City of Berkeley* (2015) 60 Cal.4th 1086, 1114-15, a party invoking the "unusual circumstances" exception may establish the exception in either of two ways. First, the Supreme Court stated that a "party invoking the exception may establish an unusual circumstance without evidence of an environmental effect, by showing that the project has some feature that distinguishes it from others in the exempt class, such as its size or location." In those cases, a categorical CEQA exemption may not be used where there is "a reasonable possibility of a significant effect due to that unusual circumstance."

Second, an "unusual circumstance" exists when there is "evidence that the project will have a significant environmental effect." That is, evidence that a project will have an impact (as opposed to just a "reasonable possibility" of one) "necessarily ... establishes a reasonable possibility that the activity will have a significant effect on the environment due to unusual circumstances." As discussed below, the County's own documents confirm that the Zoning Amendments will have a significant environmental impact on mineral resources. Additional information provided by the attached report from Sespe Consulting, Inc. also confirms that the Zoning Amendments will have adverse impacts regarding greenhouse gas emissions.

Mineral resources, including oil and gas deposits, are themselves part of the "environment" under CEQA. (Cal. Pub. Resources Code, § 21060.5 [defining the "environment" to mean "the physical conditions that exist within the area which will be affected by a proposed project, including land, air, water, minerals, flora, fauna, noise, or objects of historic or aesthetic significance"].) Because mineral resources are part of the protected environment, the CEQA Guidelines provide, in Appendix G, significance thresholds for impacts to those resources. A

project that exceeds those thresholds has a potentially significant environmental impact. The same is true for a project that exceeds the County's local CEQA thresholds, the Initial Study Assessment Guidelines, or ISAG. The ISAG include thresholds of significance for petroleum-based mineral resources (defined as oil and gas deposits) that address the issue of whether a project "involves hampering or precluding extraction of, or access to, this resource." A project that hampers or precludes oil and gas extraction or access has a potentially significant environmental impact.

The Zoning Amendments will have a direct, and significant, impact on the environment because, by the County's own admission, the Amendments preclude and hamper oil and gas development. The Zoning Amendments will preclude new oil and gas development as well as revoke authority for existing oil and gas production. With regard to the former, the Board letter notes,

In addition, the new 2040 General Plan Policies COS 7.2 (increasing minimum well setback distances from sensitive uses), 7.7 (requiring oil and produced water to be transported offsite by pipeline) and 7.8 (prohibiting flaring of produced gas) reduce the locations where, and types of, new oil production facilities that can be discretionarily permitted by the County. The proposed zoning amendments would make these new policies applicable to a broader range of proposed oil and gas development based on the new discretionary approval requirement for projects which, under the status quo, only requires a ministerial approval.

In other words, even mineral resources that can currently be extracted under an existing use permit will be precluded from being extracted by the Zoning Amendments if they are located within the setbacks in, or otherwise limited by the restrictions of, Policies COS 7.2, 7.7, and 7.8.¹

The Environmental Impact Report prepared for the 2040 General Plan analyzed the potential impacts on mineral resources arising Policies COS 7.2, 7.7, and 7.8. That EIR concluded that each of the foregoing policies "could limit access to petroleum resources in the plan area by effectively restricting the locations where new oil and gas development could occur" and could therefore result in the loss of known mineral resources. For that reason, the EIR concluded that the General Plan will have both significant and unavoidable significant impacts on mineral resources as well as other potentially significant impacts. Unfortunately, with regard to those potential impacts, the Board of Supervisors eliminated the EIR's recommended mitigation measures. The

¹ The Board of Supervisors also adopted, as part of the 2040 General Plan, a program requiring the County to "conduct a study of going to 2,500-foot setback(s) that should be required between oil wells and related extraction facilities and surrounding sensitive receptors for a future potential General Plan amendment." The County failed to properly analyze the impacts of an expanded setback policy in connection with the 2040 General Plan. (See *Save Tara v. City of West Hollywood* (2008) 45 Cal. 4th 116, 138-39.) It should consider such impacts when analyzing the impacts of the Zoning Amendments.

County did not consider any other mitigation measures or project alternatives (as required by CEQA). Therefore, the potential impacts were converted to significant and unavoidable impacts.²

Even though the County determined that Policies COS 7.2, 7.7, and 7.8 will have significant environmental impacts, and even though the Zoning Amendments broaden the applicability of Policies COS 7.2, 7.7, and 7.8, the County now ignores the impacts on mineral resources arising from the Zoning Amendments. These impacts are both direct (from the Zoning amendments themselves) and cumulative (with the 2040 General Plan³). For the latter reason, CEQA Guidelines section 15300.2(b) negates the categorical exemption of CEQA Guidelines section 15308.⁴

With regard to existing oil and gas production, and as stated in the Board letter, the Zoning Amendments apply the County's current "oil development design guidelines and operational standards" "to all oil and gas exploration and production operations." As discussed above, these guidelines and standards include prohibitions on oil and gas development with specified setback areas. The guidelines and standards also prohibit the flaring of gas or the trucking of oil; pipelines must be used instead. Consequently, the Zoning Amendments will eliminate existing, legally-permitted oil and gas production.⁵

Carbon California's technical staff analyzed the effect of the Zoning Amendments on its legally-permitted, existing and future oil and gas production. The Zoning Amendments' setback requirements will affect Carbon's current production in its fields in Upper Ojai as well as its Holser (Piru) field.⁶ The Zoning Amendments' prohibition on trucking oil will limit existing operations in Carbon's Timber Canyon lease in Upper Ojai. Numerous other Upper Ojai wells are currently within the setbacks incorporated by the Zoning Amendments, in particular the 1,500-foot

² These issues are discussed in detail in our attached August 31, 2020, letter regarding the CEQA review of the 2040 General Plan. (Attachment A.)

³ November 10, 2020 Agenda Item No. 34 will also cumulatively impact mineral resources in the County. (Attachment B.)

⁴ CEQA Guidelines section 15300.2(b) states: "All exemptions for these classes are inapplicable when the cumulative impact of successive projects of the same type in the same place, over time is significant." Section 15300.2(b) also negates any use of a categorical CEQA exemption for agenda item no. 34, which seeks to impose further restrictions on oil and gas production permits that will cumulatively affect oil and gas production.

⁵ The Zoning Amendments do not apply the oil development design guidelines and operational standards if such application would "impair any vested right of an operator under California law." However, the County's July 30, 2020, Planning Commission staff report (p. 9) makes clear that the County does not believe that any operator has vested rights arising from so-called "antiquated" permits that would preclude imposition of the oil development design guidelines and operational standards.

⁶ Carbon largely operates in these fields pursuant to the permits identified in Attachment C.

residential setback that will be applied through new, modified, or adjusted use permits. The affected production of these fields equates to 680 BBLs of oil and 2,000 MCF of gas (1,013 BOE).⁷

According to the County's own 2040 General Plan EIR, Carbon's lost production will need to be satisfied by increased imports to California. As it did in connection with the 2040 General Plan, Sespe Consulting, Inc. calculated the carbon intensity factors for County-produced oil and imported oil, the latter of which is substantially higher. Sespe converted those intensity factors into a greenhouse gas emissions factor. By multiplying that factor times the lost production identified by Carbon, Sespe determined the corresponding increase in greenhouse gas emissions caused by the Zoning Amendments. (Attachment D.) Those emissions exceed 12,000 MT/CO_{2e} annually, an amount that is significant for CEQA purposes under the CEQA thresholds used by the County in connection with the 2040 General Plan (10,000 MT/CO_{2e}/year). These emissions are on top of the significant cumulative emissions generated by the 2040 General Plan itself. (Attachment E.)

Lastly, the Zoning Amendments will also adversely impact access to mineral resources through burdensome and discretionary permitting requirements. As stated at page 8 of the Board letter,

the proposed zoning amendments could slow and/or reduce the potential expansion of new local oil and gas development, which in turn could have a negative economic impact on this economic sector and its employment base, due to the increased permitting costs and uncertainty that would be associated with the proposed discretionary permitting and environmental review process that would be required for certain new oil and gas development.

Again, even the County acknowledges that the Zoning Amendments introduce permitting obstacles that will hamper access to mineral resources.

As discussed above, the Zoning Amendments will have significant adverse impacts on mineral resources and in connection with greenhouse gas emissions. Because of those significant adverse impacts, the County cannot exempt the Zoning Amendments from the provisions of CEQA pursuant to CEQA Guidelines section 15308. As discussed above, the exemption is not available for projects that adversely impact the environment, even if there is a purported environmental benefit. By the County's own admission, the Zoning Amendments will adversely impact mineral resources, a part of the protected environment under CEQA. Additionally, under CEQA Guidelines section 15300.2 and *Berkeley Hillside, supra*, 60 Cal.4th 1086, the 15308 exemption is inapplicable because there is evidence that the Zoning Amendments will have a significant

⁷ Note that Carbon's oil and gas production is less than one-fifth of the total production in the County. Consequently, the cumulative affected production of the Zoning Amendments will be at least several multiples of Carbon's losses. The resulting greenhouse gas emissions will be similarly larger than those only affiliated with Carbon's losses.

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environmental effect. For these reasons, the County cannot exempt the Zoning Amendments from the provisions of CEQA and must conduct an environmental review of the Amendments.

Lastly, as part of its required environmental review of the Zoning Amendments, the County should and must consider mitigation measures to avoid or reduce the project and cumulative significant impacts on mineral resources, including by ensuring that any applicable setbacks on oil and gas production are reciprocal with regard to adjacent development that may trigger such a setback (e.g., NCZO section 8106-6.3). The County must ensure that future adjacent development, including projects approved with zoning clearances, does not further restrict oil and gas production.

Sincerely,

A handwritten signature in black ink, appearing to read 'Neal Maguire', with a stylized, cursive script.

Neal Maguire

Cc: Jane Farkas

Attachment A: August 31, 2020, Ferguson Case Orr Paterson LLP Letter

Attachment B: November 10, 2020, Board Letter re: Recommendation of Supervisors Bennett and Parks to Direct the Resource Management Agency to Return To the Board by June 2021 with Zoning Ordinance Amendments to Limit Discretionary Permits for Oil and Gas Operations to Fifteen Years, to Increase the Amount of the Compliance/Site Restoration Surety, and to Incorporate Measures to Assure the Timely Permanent Plugging and Restoration of Wells that Have Been Idle for Fifteen Years or More

Attachment C: Carbon Permits

Attachment D: November 9, 2020 Report from Sespe Consulting, Inc.

Attachment E: August 28, 2020 Report from Sespe Consulting, Inc.

Attachment F: December 17, 2013 Board Letter re: "Receive Presentation and Report Back in Response to May 21, 2013 Board Direction Regarding the Hydraulic Fracturing of Oil and Gas Wells in Ventura County; and Direct Revisions be Made to the Conditional Use Permit Application/Questionnaire for Oil & Gas Exploration and Production Permits."

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Attachment G: September 9, 2019, Ferguson Case Orr Paterson LLP Letter

The following documents are also incorporated by reference into the administrative record for this matter:

The Draft EIR for the 2040 General Plan: <https://vc2040.org/review/documents#Draft-Env;>

The Final EIR for the 2040 General Plan: <https://vc2040.org/review/documents#Final-Env;>

The County of Ventura's current Non-Coastal Zoning Ordinance:
[https://docs.vcrma.org/images/pdf/planning/ordinances/VCNCZO_Current.pdf.](https://docs.vcrma.org/images/pdf/planning/ordinances/VCNCZO_Current.pdf)

The County of Ventura's Initial Study Assessment Guidelines:
[https://docs.vcrma.org/images/pdf/planning/ceqa/current_ISAG.pdf.](https://docs.vcrma.org/images/pdf/planning/ceqa/current_ISAG.pdf)

Documents concerning the Board of Supervisors' September 10, 2019, Agenda Item re:
"Report Back and Seek Board Direction Regarding Potential
Amendments to the County's Zoning Ordinances Regarding Oil and Gas Development; All
Supervisory Districts":
[http://bosagenda.countyofventura.org/sirepub/agdocs.aspx?doctype=agenda&itemid=100022.](http://bosagenda.countyofventura.org/sirepub/agdocs.aspx?doctype=agenda&itemid=100022)



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August 31, 2020

Via Email

Ventura County Board of Supervisors
c/o Clerk of the Board
800 S. Victoria Avenue
Ventura, CA 93009
Email: clerkoftheboard@ventura.org
GeneralPlanUpdate@ventura.org

Re: *Item No. 39 of September 1, 2020 Agenda (2040 General Plan)*

Dear Madame Clerk:

On behalf of Carbon California Company, LLC¹, please find below and attached comments for consideration by the Board of Supervisors regarding the Ventura County 2040 General Plan and associated environmental impact report (EIR).

As discussed immediately below, we remained concerned with the lack of meaningful information and discussion in the EIR. While we certainly understand that County staff is attempting to comply with the Board of Supervisors' "specif[ication] that the General Plan Update should be completed before summer of 2020"², such artificial timing constraints cannot excuse the consistent lack of meaningful analysis in the EIR. Many of the analytical gaps

¹ Including its affiliated entities, Carbon California Operating Company, LLC and Carbon Energy Corporation.

² See Attachment A.

originate from the same underlying deficiency, namely, inadequate information regarding expected build-out under the General Plan.

Furthermore, the attachments to this letter include a report prepared by Sespe Consulting regarding greenhouse gas emissions associated with certain General Plan policies concerning mineral resources. (Attachment B.) The Sespe report confirms that those indirect impacts, which flow from the General Plan's restrictions on County oil and gas production, are significant and outweigh the purported benefits of the General Plan's mineral resource policies. That report is addressed further below along with other issues concerning the EIR's analysis of impacts to mineral resources.

Lastly, we reiterate that the County failed to abide by CEQA's circulation requirements for State agency review of the EIR. CEQA's requires strict adherence to its procedural requirements, and this should be even more so when the County could have timely addressed the issue in February in response to our prior comment.

I. LAND USE AND PLANNING/POPULATION AND HOUSING

A. The County Continues To Provide Inadequate Information Regarding General Plan Build-Out

In our February 26, 2020, letter (Attachment C), we commented that the General Plan EIR was devoid of information regarding the expected build-out under the General Plan. This omission touches much of the rest of the EIR, as many impact analyses turn on the general location of future growth and development. The County's master response to this issue simply reiterates the General Plan EIR's (deficient) approach. The County further stated, though, in response to our letter, that "[i]t would be inappropriate to speculate about the preference of future home builders and assume a disproportionate allocation of housing." The County provides no substantial evidence for its belief that future growth in the County will be proportionately distributed or dictated by the preference of developers.

While the County does not want to acknowledge it, it is entirely appropriate and possible to identify which areas of the County, including which Existing Communities and Urban areas, can accommodate expected future growth based on factors such as accessible land and zoning and the availability of infrastructure and services such as utilities and water. Other general plan EIRs can and do include such forecasts. The County of San Diego's 2011 General Plan EIR discussed the County's nearly two dozen planning areas in the unincorporated county. That EIR then analyzed historical and predicted growth trends in those planning areas. The EIR then identified, for each planning area, the future population forecasts for mid- and long-term general plan buildout (2020 and 2030 at that time). (Attachment D, p. 2.12-23.)

Likewise, Riverside County certified an EIR in 2015 for general plan amendments. That EIR analyzed, in detail, updated land use information, "socioeconomic" build-out assumptions,

and population and employment forecasts. That updated information “enable[d] the General Plan to more accurately reflect the theoretical populations, dwelling units and jobs anticipated from build out of the General Plan, as amended by [the project].” Again, the EIR examined historical growth trends, the Regional Housing Needs Assessment, and State and local policies regarding population growth and housing. As in San Diego County, Riverside identified nearly two dozen planning areas for the unincorporated County. For each, the EIR identifies projected build-out information under the existing general plan and with the project’s plan amendments. (Attachment E, pp. 4.3-13-15.)

Unlike the examples above, the County does not distinguish between its Existing Communities or Urban areas or in any way try to identify with any more precision where future development will occur, even when the General Plan EIR repeatedly notes, “The land use diagram of the 2040 General Plan would accommodate future development of relatively higher intensity residential, commercial, mixed use, and industrial land uses within the Existing Community area designation (boundary) and the Urban area designation (boundary).” Instead, the General Plan EIR often says that “a precise, project-level analysis of the specific effects of future development” is not possible.

Still, there is plenty of room between the nebulousness of the existing EIR and a project-level analysis. Like the San Diego and Riverside examples above, the General Plan EIR could and should have identified with more specificity where and how future development within the County is likely to occur. By doing so, the General Plan EIR would have informed the public as to likely locations of impacts associated with future development. By not doing so, the EIR remains devoid of much informational value and thus is inadequate, as discussed below. It should be recirculated. (CEQA Guidelines, § 15088.5(c) [directing an EIR to be recirculated when “[t]he draft EIR was so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded.”].)

B. Adequate Build-Out Information Would Inform The Draft EIR’s Impacts Analyses

The General Plan EIR contains numerous examples where the absence of build-out information precludes a sufficient analysis of the General Plan’s impacts. For example, the General Plan EIR analyzes, in section 4.17, potential impacts on utilities. In Impact 4.17-3, the County analyzes whether the General Plan would result in inadequate wastewater capacity to serve future demand. Because the General Plan lacks information regarding areas of future growth, the General Plan also can provide no analysis regarding wastewater capacity. The EIR simply states,

The location of new residential and commercial areas, the associated wastewater flows, and the applicable wastewater treatment collection and treatment facility that would accommodate new flows is unknown. It is not possible to determine how and where future development under the 2040

General Plan would change wastewater flows throughout the county without site-specific information, which is not available.

Site-specific information is not needed, however, for the EIR to be informative on this issue. The EIR notes, for example, that the Camrosa Water District is at service capacity. Identifying expected future growth in the unincorporated Santa Rosa Valley would be helpful, then, in determining whether Camrosa can accommodate those new connections with or without new infrastructure.

Again, compare the Ventura EIR's lack of information with the discussion of wastewater impacts in the County of San Diego's 2011 EIR. (Attachment D, § 2.16.) Like Ventura, the San Diego EIR discussed each wastewater service provider and its available capacity. Unlike Ventura, the San Diego EIR did not stop there. Because the San Diego EIR projected future development within the County, the EIR could also identify the expected growth increase within each district and, in turn, which districts could accommodate the growth with existing or planned facilities and which would be required to construct a new wastewater treatment plant or similar infrastructure. (Attachment D, pp. 2.16-41-43.) Riverside County adopted a similarly-detailed approach and identified the additional required capacity in particular subareas, and for particular service providers, of that county. (Attachment E, p. 4.19-289.)

The General Plan's discussion of water supplies, including Impacts 4.10-1-4 regarding groundwater and Impact 4.17-4 regarding water supply, is similarly deficient. The discussion in Impact 4.17-4 notes that growth in the County "would increase water demand" "within the southern portion of the county overlying the Ventura River, Santa Clara River, and Calleguas Creek Watersheds near to existing urban development (e.g., incorporated cities)." This area encompasses nearly all of the developed County, twenty major water suppliers, and over a hundred small water systems. (DEIR, p. 4.17-14-16.)

The General Plan EIR acknowledges that "water supplies are limited throughout these watersheds. Depending on the location of future development, adequate water supplies may not be available to meet future water demands under normal, single-dry, and multiple-dry year scenarios." Yet, even though the general location of future development is an important factor in the EIR's water supply analysis, the EIR contains no analysis regarding whether even major water purveyors in the watersheds will be able to accommodate the General Plan's additional water demands because of the absence of that information. The County must include such discussions to meaningfully inform the public and other agencies regarding the impacts of future growth under the General Plan.

C. The County Did Not Adequately Respond Regarding The Effect Of Its New Land Use Designations

In our February letter, we noted that the General Plan EIR does not make it clear whether the General Plan's proposed land use designations will impact the maximum density/intensity,

minimum lot size, and maximum lot coverage requirements for properties within the General Plan area. We requested that the County identify “which properties will see modifications to their maximum density/intensity, minimum lot size, and maximum lot coverage requirements.”

The County’s Master Response MR-2 indicates that the General Plan will not allow densities and intensities greater than existing conditions: “By design, the 2040 General Plan does not result in an increase in the density or intensity allowed on any parcel.” The County does not, however, speak at all to the issue of whether properties will see decreases to densities and intensities. The County’s incomplete response is inadequate. (See CEQA Guidelines, § 15088; *Rural Landowners Assn. v. City Council* (1983) 143 Cal.App.3d 1013, 1023.)

The General Plan EIR’s failure to adequately address this and related issues is particularly problematic because the County separated the update to its Housing Element from the General Plan.³ An obvious concern with the County’s approach is that the 2040 General Plan will constrain future housing opportunities with its land use policies and then refuse to re-open consideration of such policies and provisions in connection with the Housing Element update. The EIR must disclose the result of its new land use designations and associated development standards.

II. MINERAL RESOURCE IMPACTS

A. The General Plan’s Analysis Of Mineral Resource Impacts

Mineral resources are themselves part of the “environment” under CEQA. (Cal. Pub. Resources Code, § 21060.5.) Because mineral resources are part of the protected environment, the CEQA Guidelines provide significance thresholds for them. CEQA Guidelines Appendix G asks, would a project “[r]esult in the loss of availability of a known mineral resource that would be a value to the region and the residents of the state?” or “[r]esult in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?” A project answering “yes” to these questions has a potentially significant environmental impact.

The County has, of course, also adopted its own local CEQA thresholds, the Initial Study Assessment Guidelines, or ISAGs, that determine when a project has a potentially significant environmental impact.⁴ The ISAG are also protective of mineral resources. The ISAG include

³ However, the County has already commenced the process for updating its housing element, as discussed at the following link, which is hereby incorporated by reference, and plans to adopt it in the fall of 2021: <https://vcrma.org/housing-element-update>.

⁴ The ISAG may be located at: https://docs.vcrma.org/images/pdf/planning/ceqa/current_ISAG.pdf and are hereby incorporated by reference into the administrative record for this matter.

thresholds of significance for petroleum-based mineral resources (defined as oil and gas deposits) that address the issue of whether a project “involves hampering or precluding extraction of, or access to, this resource.” A project that hampers or precludes oil and gas extraction or access has a potentially significant environmental impact.

The General Plan EIR consolidated the above thresholds and analyzed the General Plan’s impacts on mineral resources (oil and gas) in light of those versions. The Draft EIR analyzed various elements of the General Plan and identified several that could hamper or preclude oil and gas extraction or access:

- COS-7.2: Oil Well Distance Criteria. The County shall require new discretionary oil wells to be located a minimum of 1,500 feet from residential dwellings and 2,500 from any school.
- COS-7.7: Conveyance for Oil and Produced Water. The County shall require new discretionary oil wells to use pipelines to convey oil and produced water; oil and produced water shall not be trucked.
- COS-7.8: Gas Collection, Use, and Disposal. The County shall require that gases emitted from all new discretionary oil and gas wells shall be collected and used or removed for sale or proper disposal. Flaring or venting shall only be allowed in cases of emergency or for testing purposes.

The Draft EIR concluded that each of the foregoing policies “could limit access to petroleum resources in the plan area by effectively restricting the locations where new oil and gas development could occur” and could therefore result in the loss of known mineral resources. For that reason, the EIR concluded that the General Plan will have potentially significant environmental impacts on mineral resources.

B. The Draft EIR Attempted To Mitigate The General Plan’s Significant Adverse Impacts On Mineral Resources

Because the General Plan EIR determined that the Plan will have a potentially significant impacts on mineral resources, the County must consider effective and feasible mitigation measures or project alternatives to reduce or avoid those impacts. (CEQA Guidelines, § 15002(a)(3).) The County proposed feasible mitigation in the Draft EIR, Mitigation Measures PR-1, PR-2, and PR-3, that the EIR determined would substantially lessen the impact of the policies regarding oil and gas production. Each of those mitigation measures involves revising the three above-referenced General Plan policies:

- The Draft EIR revised Policy COS-7.2 to reduce the required setbacks between oil wells and sensitive receptors.

- The Draft EIR revised Policy COS-7.7 to allow trucking of oil and produced water if a pipeline is infeasible.
- The Draft EIR revised COS-7.8 to allow flaring of gases from wells if collecting such gases is infeasible.

In each case, the revisions reduced impacts arising from the policies' restriction of access to mineral resources created by the three originally-drafted policies.

Despite the mitigation measures, the Draft EIR determined that impacts arising from Policy COS-7.2 would remain significant and unavoidable because, even with a reduced setback, the policy would encompass numerous existing active or idle oil wells as well as a substantial amount of property, as illustrated in Draft EIR Figures 4.12-1 and 4.12-2. The Draft EIR did not consider any other specific mitigation measures or project alternatives to address this significant and unavoidable impact.

With regard to Policies COS-7.7 and 7.8, the Draft EIR concluded that the mitigation measures would reduce impacts to a level below significance:

By continuing to allow the County's approval of new oil and gas wells that utilize flaring or venting of produced gas and/or trucking of oil and produced water in situations where there is no feasible alternative, Mitigation Measures PR-2 and PR-3 would reduce the potential impact regarding a loss of availability of a known petroleum resource that would be of value to the region and the residents of the State. This impact would be reduced to **less than significant**.

The Draft EIR relied solely on Mitigation Measures PR-2 and PR-3 to reduce the significant impacts of Policies COS-7.7 and 7.8.

C. The General Plan EIR Failed To Analyze Foreseeable Indirect Impacts Regarding Imports

In addition to the General Plan's direct impacts on mineral resources, the Draft EIR acknowledged that the General Plan's policies, even with the mitigation measures' revisions, "would implement permitting challenges that may affect the feasibility of local oil and gas production and, in turn, would increase the reliance on foreign imports from outside of the 2040 General Plan area."⁵ The Draft EIR noted that "the demand for California-produced oil and gas would be satisfied through the importation of additional oil and gas from other countries and

⁵ The Draft EIR further noted that "[o]verall crude demand has held steady in California for the past 20 years."

Alaska, which in turn could have indirect environmental impacts such as those associated with transporting the oil and gas from outside of Ventura County.” Even though the Draft EIR recognized the presence of such impacts, the Draft EIR declined to analyze these indirect impacts because they “would largely occur outside the 2040 General Plan project area.”⁶

In our February comment letter regarding the Draft EIR, we remarked that it is “fundamental under CEQA that an EIR may not artificially constrain its analysis of direct or indirect impacts based on a project area or an agency’s jurisdictional boundaries.” (Citing *Muzzy Ranch Co. v. Solano County Airport Land Use Com.* (2007) 41 Cal.4th 372, 387; *County Sanitation Dist. No. 2 v. County of Kern* (2005) 127 Cal.App.4th 1544, 1582–1583; *Napa Citizens for Honest Gov’t v. Napa County Bd. of Supervisors* (2001) 91 Cal.App.4th 342, 369.)

The Final EIR’s Master Response MR-4, subsection K, responds to this comment by reaffirming the significance of the impact on mineral resources from the General Plan as well as the conclusion that the General Plan would likely result in increased import of foreign oil and gas. However, the Final EIR still declines to further analyze this potential impact. To do so, the Final EIR states, “would be speculative and would not change the impact determination of significant and unavoidable.” As discussed below, neither rationale proposed by the County passes muster.

1. Impacts regarding imports are reasonably foreseeable.

The County claims that it would be speculative to analyze the indirect impacts associated with the loss of County oil and gas production. It is not. As set forth in Attachment B, Capitol Matrix Consulting analyzed the General Plan’s policies and determined the mineral resources within the County that would be affected by the General Plan in three specified years. Additionally, Carbon California prepared an analysis of its reserves that it would be precluded from producing by the General Plan. According to the County’s own EIR, that production will need to be satisfied by increased imports.

Additionally, Sespe Consulting, experts in the analysis of air quality and greenhouse gas emissions impacts, calculated the carbon intensity factors for County-produced oil and imported oil, the latter of which is substantially higher, including because of increased production- and transportation-related emissions. Sespe converted those intensity factors into a greenhouse gas

⁶ Of course, this arbitrary jurisdictional boundary does not stop the County from taking credit for greenhouse gas emissions credits originating from outside of the County. In the new “Appendix D: Revised Draft EIR Appendix D GHG Calculations,” the County identifies the GHG emissions calculation associated with General Plan Policy COS-8.4. The County credits itself with a 20,445 MT CO₂e reduction from participants in the Clean Power Alliance program, which generates “green” electricity outside of the County that largely replaces emissions generated outside of the County. (Attachment F.)

emissions factor. By multiplying that factor times the lost production identified by Capitol Matrix and Carbon, Sespe concludes that the County's General Plan policies will actually result in 2,382 to 11,666 MT/CO_{2e} in 2021 depending on each policy. There is the potential for a cumulative amount of 34,173 MT/CO_{2e}. The GHG emissions from the policies increase to a range of 24,548 to 121,526 MT/CO_{2e} in 2031. Again, there is a cumulative potential in 2036, now 354,126 MT/CO_{2e}. The impact from the Plan policies, taken alone or cumulatively, exceed the County's own significance thresholds discussed by the County in section 4.8 of the General Plan EIR, including the 10,000 MT/ CO_{2e} threshold adopted from the South Coast AQMD. (Attachment B, p. 4.)

The emissions associated with Carbon's lost production also are significant. Carbon's reserves exceed 56,000,000 barrels. Applying a discount for the uncertainty associated with some of those reserves, Carbon estimates undeveloped Ventura County reserves of a minimum of 39,088,000 barrels. Carbon conservatively estimates that the General Plan will reduce the reserve potential by forty percent (this excludes any cumulative impacts of the Plan's policies). Sespe's report indicates that the imports required to replace this production will generate 11,400 MT CO_{2e} on an annual basis. The impact associated with Carbon's loss of production alone, then, results in a significant indirect impact under CEQA. (Attachment B, p. 4.) The EIR must be recirculated with measures or alternatives to mitigate or avoid these impacts. (See *Cadiz Land Co. v. Rail Cycle* (2000) 83 Cal.App.4th 74, 95.)

The County was entirely capable of engaging in, or requesting from its CEQA consultant, the same type of analysis now provided by Sespe Consulting.⁷ Indeed, it was obligated to do so, as it must "use its best efforts to find out and disclose all that it reasonably can." (CEQA Guidelines, § 15144 ["Drafting an EIR or preparing a Negative Declaration necessarily involves some degree of forecasting."]; *Citizens to Preserve the Ojai v. County of Ventura* (1985) 176 Cal.App.3d 421, 430-32.)

Nor can the County excuse its failure to analyze the indirect impacts of General Plan Policies COS-7.2, COS-7.7, and COS-7.8 by contending that its EIR is programmatic in nature. "The degree of specificity required in an EIR will correspond to the degree of specificity involved in the underlying activity which is described in the EIR." (CEQA Guidelines, § 15146.) While a general plan EIR will likely be less "detailed in the specific effects of the project" than an EIR for a specific development project, the "underlying activity" here includes the very specific Policies COS-7.2, COS-7.7, and COS-7.8.

Moreover, even a general plan EIR must "focus on the secondary effects that can be expected to follow from the adoption" of the General Plan. The County did not "focus" on the

⁷ There is no rule that precluded the County from meeting with producers before or after the circulation of the EIR to discuss this information. (See, e.g., *Citizens for a Sustainable Treasure Island v. City & County of San Francisco* (2014) 227 Cal.App.4th 1036, 1062.)

indirect impacts of Policies COS-7.2, COS-7.7, and COS-7.8 at all even though the General Plan EIR fully recognizes that the affected oil and gas production in the County would be replaced with environmental impact-generating imports.

2. The County must analyze indirect impacts even if it has already declared an impact to be significant and unavoidable.

With regard to the latter rationale put forth by the County, CEQA does not authorize an agency to shirk its obligations under CEQA once it has determined that an environmental impact will be significant and unavoidable. The County must continue to inform the public and other decision-makers regarding the severity of the impact and its source(s) to inform the consideration of mitigation measures and alternatives. (CEQA Guidelines, §§ 15088.5(A)(2); 15204(a).) The County also cannot evade its obligation to consider and adopt mitigation measures or project alternatives. This is particularly important here because, as discussed above, the very General Plan policies designed in part to purportedly improve air quality and greenhouse gas emissions impacts will, in fact, result in increased impacts in those areas.

D. The County Must Recirculate The EIR After Deleting Mineral Resource Mitigation

In addition to our prior comments regarding these issues, the County's failure to properly analyze indirect impacts have been greatly compounded by recent changes to the General Plan. In Final EIR response to comment A9-3, responding to the City of Ojai's comment letter requesting stricter limitations on oil and gas production, the County acknowledged that it was "legally required by CEQA" to propose mitigation measures (Mitigation Measures PR-1, PR-2, and PR-3) to substantially lessen the General Plan's impacts on mineral resources.

The same response to comment continued, though, with an unusual caveat that, despite the fact that the Draft and Final EIRs determinations that Mitigation Measures PR-1, PR-2, and PR-3 were feasible, the Board of Supervisors could,

conclude that any or all of the policy revisions/mitigations measures set forth in the draft EIR are infeasible and adopt a statement of overriding considerations concluding that the benefits of adopting the policies, as originally proposed by the Board, would outweigh any significant environmental impacts that would result from the policies.

County staff did not wait for the Board of Supervisors to weigh in on these issues. The staff report for the County Planning Commission proposed the same approach offered in the response to comment to the City of Ojai. Unsurprisingly, at its July 16, 2020, hearing, the Planning Commission apparently removed the entirety of Mitigation Measures PR-1, PR-2, and PR-3. The

Commission did not recommend the substitution or consideration of any other mitigation measures.⁸

Should the Board of Supervisors approve the deletion of the mitigation measures, as expected, it will result in the following changes to the conclusions of the EIR:

- The significant and unavoidable adverse impact of General Plan Policy COS-7.2, which “notably increases[s] the existing setback requirements for new oil and gas wells ... thereby hampering or precluding access to the resource,” is not being mitigated at all and is therefore substantially more severe.
- The less than significant impacts of General Plan Policies COS-7.7 (prohibition on trucking of oil and produced water) and COS-7.8 (prohibition on gas flaring) are not being mitigated at all and are now significant and unavoidable adverse impacts.

At the outset, note that if the County continues with this approach, it must recirculate the General Plan EIR for further review and comment. The County “is required to recirculate an EIR when significant new information is added to the EIR after” the public’s review of the draft EIR but before certification. (CEQA Guidelines, § 15088.5(a).) “New information” includes changes to a project. Here, the County is now proposing to revise General Plan Policies COS-7.2, COS-7.7, and COS-7.8 as compared to the versions of those policies analyzed by the Draft EIR.

Such “new information” is “significant” under CEQA Guidelines section 15088.5 when it “deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental effect of the project or a feasible way to mitigate or avoid such an effect.” (CEQA Guidelines, § 15088.5(a).) CEQA Guidelines section 15088.5(a)(1)-(2) further specifies that the following scenarios automatically trigger a requirement to recirculate an EIR: when new information shows that a new significant environmental impact would result from the project; or when new information shows that there will be a substantial increase in the severity of an environmental impact.

The above criteria, and others in section 15088.5, establish minimum requirements. Recirculation may still be required even when new information does not show a new or more severe impact. (See *Spring Valley Lake Association v. City of Victorville* (2016) 248 Cal.App.4th

⁸ Instead, Commissioners repeatedly indicated that they were constrained by prior direction from the Board of Supervisors. But the County cannot artificially limit its CEQA review in any way “that forecloses alternatives or mitigation that would ordinarily be part of CEQA review.” (*Save Tara v. City of West Hollywood* (2008) 45 Cal. 4th 116, 138-39.) Such statements reflect a troubling pattern by the County, which adopted a similar approach in connection with its wildlife corridor ordinance and the zoning amendments regarding so-called “antiquated” oil and gas permits.

91, 108-09 [new hydrology and water quality reports triggered recirculation even though the reports did not change a significance conclusion because the public was deprived of a meaningful opportunity to comment on them]; *Save Our Peninsula Committee v. Monterey County Bd. of Supervisors* (2001) 87 Cal.App.4th 99, 134 [holding that new information supporting the effectiveness of a mitigation measure still required recirculation].)

As noted above, the County's recent revisions to the General Plan and EIR trigger the minimum requirements of Guidelines section 15088.5 since they result in new significant impacts as well as a substantially more severe impact concerning mineral resources. Recirculation is particularly important here because the County has, instead of engaging in a meaningful discussion of other potential mitigation measures, simply declared that Mitigation Measures PR-1, PR-2, and PR-3 are infeasible. (See *Gray v. County of Madera* (2008) 167 Cal.App.4th 1099, 1120.) As discussed below, the County's findings regarding feasibility are not supported.

E. The General Plan EIR's Mitigation Measures For Mineral Resources Are Not Infeasible

The County's bait-and-switch approach regarding the mineral resource mitigation measures violates CEQA by failing to properly demonstrate that Mitigation Measures PR-1, PR-2, and PR-3 are actually infeasible. In essence, the County Planning Commission and, as expected, the Board, are simply concluding that the mitigation measures are infeasible because they interfere with purported social and environmental benefits of the General Plan and its desired reduction of oil and gas production in the County. The County explicitly states that it "must weigh the importance" of impacts to mineral resources against the General Plan's intended goal of reducing impacts from oil and gas production. The County then finds that such "tradeoffs" render Mitigation Measures PR-1, PR-2, and PR-3 infeasible.

California courts have already rejected this approach. CEQA Guidelines section 15091(f) provides that the type of discussion appropriate for a statement of overriding considerations may not substitute for proper findings regarding the feasibility of a mitigation measure. That is because "CEQA does not authorize an agency to proceed with a project that will have significant, unmitigated effects on the environment, based simply on a weighing of those effects against the project's benefits, unless the measures necessary to mitigate those effects are truly infeasible." (*City of Marina v. Bd. of Trustees of the Cal. State Univ.* (2006) 39 Cal.4th 341, 368-69, emphasis added; see also *Lighthouse Field Beach Rescue v. City of Santa Cruz* (2005) 131 Cal.App.4th 1170, 1997 [holding, in connection with a negative declaration for revisions to a general plan, that "we must reject the City's advocacy of a 'net' environmental analysis"].)

The County has not provided any support for the position that Mitigation Measures PR-1, PR-2, and PR-3 are "truly infeasible." Nor could it, since the Draft EIR already concluded that the measures were, themselves, feasible.

Moreover, even the County's purported findings are not supported by substantial evidence. The County's findings contain nothing more than speculation:

- "2040 General Plan, Policies COS-7.7 and COS-7.8 could benefit air quality, limit the release of GHGs and avoid other environmental impacts that could result from new oil and gas development that would not be authorized under the policies."
- "Additionally, COS-7.7 would result in the reduction of trucking of crude oil and produced water which could result in a potential reduction of VMT in the unincorporated county."⁹
- "Mitigation that allows access to local oil and gas resources could also reduce protection of human health and the environment."

Such "could's" do not constitute substantial evidence. (Cal. Pub. Resources Code, § 21082.2(c); CEQA Guidelines, §§ 15064(f)(5), 15384(a).)

Even the County's other findings still remain illogical or unsupported conjecture. The County finds that the three policies may "benefit air quality, limit the release of GHGs and avoid other environmental impacts that could result from new oil and gas development." As discussed below, this finding is limited to emissions associated with the production of oil and gas in the County, not consumption, since the General Plan policies at issue do not limit the demand for oil and gas in the County. Emissions associated with the consumption of oil and gas are not benefited by the County's deletion of Mitigation Measures PR-1, PR-2, and PR-3.

Furthermore, to the extent that the County finds that a prohibition on the trucking of oil and water "would avoid emissions of criteria air pollutants, toxic air contaminants, and greenhouse-gas compounds," the County's findings include no support for these statements. Contrary to CEQA's requirements, there is absolutely no discussion, let alone any quantification, by the County as to how much the policy would avoid such emissions. (*Laurel Heights Improvement Assn. v. Regents of Univ. of Cal.* (1988) 47 Cal.3d 376, 405.) The public must be apprised of this information, as the County's infeasibility determination cannot be justified if, for example, such emission reductions are uncertain or negligible. (See *Preservation Action Council v. City of San Jose* (2006) 141 Cal.App.4th 1336, 1352 [holding that economic infeasibility finding must be based on evidence that the impact is "sufficiently severe" to render a project alternative infeasible].)

Moreover, the findings certainly cannot be justified when the "could's and would's" have been disproven. As discussed above, the County completely neglects the substantial increase in

⁹ Again, the County's analysis improperly restricts its consideration to the County's boundaries and ignores VMTs associated with increased imports.

emissions associated with the import of oil and gas that would be required to offset local production and must factor such emissions into its “tradeoff” analysis.

Moreover, with regard to the County’s finding that Policy COS-7.7, which concerns eliminating the ability to truck oil and produced water, “would also decrease traffic safety risks associated with the trucking oil and produced water from such new wells,” the County’s own prior work refutes such benefits. The County examined this very issue in the Ojai Valley, an area which has driven the bulk of public concern on this issue. In connection with the 2019 consideration of a request to renew a permit for an existing oil and gas operation, the County examined traffic accident data along Creek Road between Highway 33 and Hermosa Road. Staff reported that its examination of accidents from 2008 to 2018 indicated that none of the 143 accidents involved a tanker truck. (See Attachment G, p. 19.)

For all of these reasons, the County’s findings regarding the infeasibility of Mitigation Measures PR-1, PR-2, and PR-3 are not supported by substantial evidence. Consequently, the Statement of Overriding Consideration is also not supported by substantial evidence, as it relies on the same conclusory project benefits to override the General Plan’s significant adverse impacts on mineral resources. (Board Public Hearing Exh. 5, pp. 125-26.)

F. The County Should Consider Additional Mitigation Measures Or Alternatives

The County’s recent decision to revoke the Mitigation Measures PR-1, PR-2, and PR-3 deprived the public of the opportunity to request the consideration of substitute mitigation measures or project alternatives that would reduce or avoid the General Plan’s significant adverse impacts on mineral resources. As discussed above, the County should recirculate the EIR to address those issues. At a minimum, the County should consider the adoption of the following feasible mitigation measures or project alternatives.

Last fall, the Board of Supervisors directed County staff to prepare amendments to the County’s Non-Coastal Zoning Ordinance regarding oil and gas permitting. (Attachment H.) One stated goal of the Zoning Amendments is to convert currently ministerial decisions under vested permits to discretionary decisions that may be denied entirely.¹⁰ The discretionary process also imposes CEQA review – and all its associated burdens and costs – on all oil and gas permits.

The amendments also impose new operating and permitting limitations on oil and gas production. For example, the amendments impose expanded setbacks on existing and future oil

¹⁰ Despite knowing about the Board’s direction last September, the Draft EIR improperly failed to consider the cumulative impacts on mineral resources of the General Plan in conjunction with the zoning amendments even though the General Plan EIR recognizes that such land use policies can impede access to mineral resources. This is especially important because the County is impermissibly relying on a CEQA exemption for the zoning amendments.

and gas operations. Such amendments will therefore further hamper access to mineral resources.¹¹ On July 30, 2020, the County Planning Commission held a meeting and recommended approving the proposed zoning amendments. (See Attachment I.) The Board of Supervisors is expected to consider the amendments at a hearing on October 6, 2020.

The County should consider, as either a mitigation measure or project alternative, a policy in the General Plan that enhances, or at least preserves, ministerial permits currently held by oil and gas producers, as well as the opportunity to apply for such permits in the future. Such a measure will minimize impacts arising from zoning amendments' limits on access to mineral resources. The County should also consider eliminating the proposed operational and permitting requirements on oil and gas production proposed for Section 8107-5.6.1 of the Non-Coastal Zoning Ordinance. (Attachment I.)

In addition, to the extent that the County is purportedly concerned about safety and emissions issues arising from truck trips, it should consider measures across all industries to address such issues. For example, the County could revise Policy COS-7, regarding truck trips, to limit such truck trips to non-peak hours. The County imposed this same condition on a recently-approved renewal of a use permit for an existing oil and gas operator. (Attachment G, p. 5.) Such a measure or alternative will address the purported truck safety concerns, especially if it is broadened to other industries, while also avoiding direct impacts on mineral resources (and therefore the indirect impacts regarding air emissions).

III. THE COUNTY'S PROCEDURAL NON-COMPLIANCE WITH CEQA

In our February letter, we noted that the General Plan EIR was not properly circulated to State agencies for the required 45 days under Public Resources Code section 21091. In response, the County acknowledged the importance of the Clearinghouse distributing the Draft EIR on January 13, 2020, to reach the full 45 days. (Cal. Pub. Resources Code, § 21091(c)(2) ["Day one of the state agency review period shall be the date that the State Clearinghouse distributes the CEQA document to state agencies."].)

¹¹ In addition to their CEQA impacts, the amendments also impermissibly impair vested rights. (Attachment J.) Implementation of the General Plan will similarly and impermissibly impair such rights. The Final EIR's Master Response MR-4.B mistakenly contends that County operators do not have vested rights associated with so-called "antiquated" permits. Until the County began its recent multi-pronged effort against oil and gas production, County Counsel's office recognized the vested rights associated with the "antiquated" permits. (Attachment K.) In that memorandum, County Counsel relies on the California Supreme Court's decision in *Hansen Bros. Enterprises, Inc. v. Bd. of Supervisors* (1996) 12 Cal.4th 533, 565-566. Master Response MR-4.B does not address this authority at all.

August 31, 2020

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However, the County declined to confirm the actual distribution date with the Clearinghouse. Instead, the County simply responded that it is “unaware of any evidence to support the commenter’s claim that State agencies did not receive the draft EIR on January 13th as intended.” The County further stated, “The County assumes that ... the documents were timely distributed on January 13, 2020.” As we provided in our August 4, 2020, letter, the County’s assumption is incorrect. The Clearinghouse confirmed distribution on January 14th. (Attachment L.)

Still, the County did not recirculate its EIR through the Clearinghouse for the full 45 days. Instead, the County seems to contend now that it satisfied Public Resources Code section 21091 because the Clearinghouse received the County’s Notice of Completion of January 10, 2020, a Friday, and should have distributed the EIR within three days. However, the Clearinghouse has three working days from receipt to distribute the EIR. (Cal. Pub. Resources Code, § 21091(c)(3).) Therefore, not that it is dispositive, but the County should never have assumed that the Clearinghouse would distribute the EIR by January 13, 2020, a Monday.

CEQA demands strict compliance with its procedural obligations. (See, e.g., *Latinos Unidos de Napa v. City of Napa* (2011) 196 Cal.App.4th 1154 [declining to apply a substantial compliance standard where notice of an EIR was not posted for the required period of time because of a miscalculation of the first day of the review period: “The substantial compliance doctrine should not be used to muddy up the calculation of statutory time periods.”]; *Gilroy Citizens for Responsible Planning v. City of Gilroy* (2006) 140 Cal.App.4th 911, 922.) This is particularly true when the County was apprised of its error back in February with plenty of time to correct the mistake with the Clearinghouse.

IV. CONCLUSION

Thank you for your consideration of the above comments. In accordance with *Golden Door Properties v. Sup. Ct.* (2020) 52 Cal.App.5th 837, the County must retain all records relevant under Public Resources Code section 21167.6, which defines the record of proceedings in a CEQA case, for this matter. The County must do so regardless of any internal document retention policy. In *Golden Door Properties*, the County of San Diego’s 60-day email deletion policy was held to be inconsistent with CEQA.

Finally, in accordance with Public Resources Code section 21167(f), please provide me with notice of any Notice of Determination filed by the County.

Sincerely,

A handwritten signature in black ink, appearing to read 'Neal Maguire', with a stylized, cursive script.

Neal Maguire

- Attachment A: Ventura County Board of Supervisors Official Summary Minutes (September 22, 2015)
- Attachment B: August 28, 2020 Report from Sespe Consulting, Inc.
- Attachment C: February 26, 2020 Letter from Ferguson Case Orr Paterson LLP
- Attachment D: County of San Diego 2011 General Plan Update - Final Program EIR
- Attachment E: County of Riverside 2015 Draft Environmental Impact Report No. 521
- Attachment F: Clean Power Alliance 2018-19 Impact Report
- Attachment G: January 15, 2019 Ventura County Staff Report re: BFLP Modified CUP
- Attachment H: September 10, 2019 Report Back re: Potential Amendments to the County's Zoning Ordinances Regarding Oil and Gas Development
- Attachment I: July 30, 2020 Staff Report re: Public Hearing to Consider County-Initiated Amendments to Article 7, Section 8107-5 of the Ventura County Non-Coastal Zoning Ordinance and Article 5, Section 8175-5.7 of the Ventura County Coastal Zoning Ordinance, to Modify Permitting Requirements for Certain New Oil and Gas Exploration and Production Operations and to Address the Applicability of the County's Oil Development Regulations (PL20-0052)
- Attachment J: July 29, 2020 Letter from Ferguson Case Orr Paterson LLP re: Item No. 7 of Ventura County Planning Commission July 30, 2020 Agenda (PL20-0052)
- Attachment K: Ventura County Counsel Office's 2014 Legal Analysis of Antiquated Oilfield Conditional Use Permits
- Attachment L: August 4, 2020 Letter from Ferguson Case Orr Paterson LLP re: 2040 General Plan Responses to Comments



MEMBERS OF THE BOARD
KELLY LONG, Chair
STEVE BENNETT
LINDA PARKS
ROBERT O. HUBER
JOHN C. ZARAGOZA

**BOARD OF SUPERVISORS
COUNTY OF VENTURA**

GOVERNMENT CENTER, HALL OF ADMINISTRATION
800 SOUTH VICTORIA AVENUE, VENTURA, CALIFORNIA 93009

November 10, 2020

Board of Supervisors
County of Ventura
800 South Victoria Avenue
Ventura, CA 93009

SUBJECT: Recommendation of Supervisors Bennett and Parks to Direct the Resource Management Agency to Return To the Board by June 2021 with Zoning Ordinance Amendments to Limit Discretionary Permits for Oil and Gas Operations to Fifteen Years, to Increase the Amount of the Compliance/Site Restoration Surety, and to Incorporate Measures to Assure the Timely Permanent Plugging and Restoration of Wells that Have Been Idle for Fifteen Years or More

RECOMMENDED ACTIONS:

Direct the Resource Management Agency to return to the Board by June 2021 with Coastal and Non-Coastal Zoning Ordinance Amendments to:

- A) Limit discretionary permits for oil and gas operations to fifteen years in duration, except for reclamation activities;
- B) Increase the amount of the oil & gas permit compliance/site restoration surety;
- C) Incorporate measures to assure timely permanent plugging and restoration of wells that have been idle for fifteen years or more.

DISCUSSION:

On September 15th, our Board approved the General Plan Update (GPU) including a Climate Action Plan calling for reductions in greenhouse gas (GHG) emissions. Our Board also recently appointed a Climate Emergency Council to further GHG reduction beyond the measures specified in the GPU.

Recent extreme weather events and firestorms have increased the public's interest in addressing climate change locally. While in the press, a series of investigative articles in the Los Angeles Times identified idle or abandoned oil wells as a multi-billion-dollar problem in California and a source of GHG emissions. Locally, oil production facilities near Oxnard and at Rincon Island have been abandoned and will cost the State millions of dollars to remediate. Ventura County contains a very large number of aging and idle oil wells and infrastructure, some of which have resulted in leaks, and nearly all of which will eventually need to be removed, properly plugged/remediated, and sites restored as oil and gas production declines in the future. Neither State nor County government has a clear plan, timeline, and funding mechanism to adequately assure the reclamation of all oil sites and infrastructure.

Global, State, and national consumption of oil have all declined dramatically in 2020. The economic downturn and low oil prices will likely add to the number of idle wells in the future. On September 23rd, Governor Newsom issued an Executive Order banning the sales of internal combustion vehicles by year 2035. The County of Ventura, through the 2040 General Plan and other policies, plans, and actions is pursuing alternatives to petroleum-fueled vehicles and encouraging alternative transportation through transit and active transportation, and similar efforts are being carried out by other local and state governments.

Between declining oil consumption and adopted programs of GHG emissions reduction and alternative transportation, there is uncertainty as to the long-term need for expanded oil and gas production in Ventura County.

Fifteen-Year Discretionary Permit Limit

County government currently has no policy on the length of time for discretionary oil and gas permits. Projects that have come before our Board have ranged from twenty to thirty years as approved or recommended permit time periods. As we know, discretionary permits can be extended with a straight-forward permit process. However, the modification or revocation of discretionary permits is sufficiently problematic as to be nearly prohibitive.

With the uncertainty over the long-term need for expansion of oil and gas production, the prospect of substantial need for site remediation and reclamation without highly reliable assurance of timely success, and the relative ease of permit extension compared to permit modification, it is appropriate that our Board establish a policy of limiting new discretionary oil and gas facility/operations to a fifteen year time period, with the exception of permits for reclamation activities.

A shorter permit period enables the County to have greater control over the operation and disposition of facilities, greater ability to address any identified shortcomings or previously unknown or unconsidered issues, greater ability to apply new conditions as future conditions warrant, and greater ability to address the remediation of any portions of the permit site no longer in active use. In cases where an applicant is interested in a large-scale, long-term production proposal, the applicant could either phase the development and apply for discretionary permits as the project is built-out over time, or apply for permit extensions or expansions.

Increasing the Amount of the Oil & Gas Permit Compliance-Site Restoration Surety

The Non-Coastal Zoning Ordinance, in the Oil Development Standards section, provides for a performance/penal surety for oil and gas operations as follows:

“...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,...”

This section appears to not have been amended to increase the surety amount since adoption of the section in the 1980's. Clearly, the \$10,000 figure is no longer an adequate amount to address non-compliance or site restoration, and should be appropriately increased to cover both instances of permit or ordinance non-compliance, and site restoration upon termination of the operation(s) or permit.

Measures to Address Plugging and Restoration of Long-Idle Wells

On May 3, 2016 our Board voted to support State action to require the permanent plugging and remediation of oil and gas wells that have been idle for an extended period. Planning staff had advised that a fifteen-year period encompassed multiple oil price cycles, and wells that remained idle longer were unlikely to be operated in the future and should be permanently and properly plugged and site restored.

Uncapped idle and abandoned wells, left unattended, can leak oil contaminants into aquifers, waterways, contaminate soil and pollute the air, posing public health and safety concerns to our communities in the forms of spills, emissions, or explosions.

Such wells can also cause safety issues as attractive nuisances when they are not secured. Leaking GHG also undermine statewide GHG reduction efforts. It is appropriate that our Board establish a policy requiring applicants seeking new or

renewed permits for oil wells to submit a viable mitigation plan for addressing their existing uncapped long-idle or abandoned wells in Ventura County.

Well remediation is an important part of a just transition to a clean, renewable energy economy. We must protect taxpayers by requiring operators to meet their legal obligation to properly remediate their long-idle wells before the risk of financial insolvency is too great. The toxic burden from carelessly abandoned oil and gas wells by financially insolvent or negligent operators should not become a burden to taxpayers. An applicant's viable mitigation plans for capping their long-idle wells in Ventura County should be part of the consideration for determining an applicant's new or extended discretionary permits.

This information will inform decisionmakers of the performance of applicants to meet environmental safeguards and can be used to condition new permits to ensure compliance. The submitted mitigation plans must be viable and include but not be limited to an inventory of such wells in Ventura County that are owned by the applicant and their affiliates, cost estimates for the remediation, and a schedule for their proper plugging and restoration, recognizing that oversight of the actual well work falls under State authority.

Adoption of the recommended actions will further the implementation of the GPU and Climate Action Plan and County and State GHG reduction goals, and enhance protection of communities, resources, and the environment.

Cordially,



Steve Bennett
Supervisor, First District



Linda Parks
Supervisor, Second District

Carbon California - Conditional Use Permits Affected by GP and NCZO Amendments

| Permit # | Field | Imapct Cause | Notes: |
|-----------------------|---------------------------|--|---|
| SUP-15 | Ojai | 1500-foot setback | Originally approved in 1948; modified in 1961, 1977, 1983, 1985, 1991 |
| SUP-31 | Timber Canyon Ridgeway | Trucking | Approved in 1948 |
| CUP-3344 PL13-0150 | Ferndale | 1500-foot setback | Approved in 1975; modified in 2015 |
| CUP-3319 PL15-0060 | Nesbitt/Harth | 1500-foot setback | Approved in 1972; modified in 2016 |
| CUP-325 | Hamp Fee | 1500-foot setback | Approved in 1955 |
| CUP-3543 PL13-0158 | Agnew | Trucking, Flaring & 1500-foot setback | CUP 3543 originally approved in 1976; modified in 1983; PL13-0158 pending |
| CUP-4015 | Hartman | Trucking & 1500- foot setback | Approved in 1981 |
| CUP-72 CUP-52 | Holser | Trucking & 1500- foot setback | CUP 72 approved in 1950. CUP 52 approved in 1949 |

November 9, 2020

Ms. Jane Farkas
Director Land and Regulatory Affairs
Carbon California Company
270 Quail Court, Suite B
Santa Paula, CA 93060

Re: Greenhouse Gas Impacts of Proposed Ventura County 2020 Oil and Gas Ordinance Revisions

Dear Ms. Farkas,

Sespe Consulting, Inc. (Sespe) has prepared this report to present the findings of our analysis evaluating the Greenhouse Gas (GHG) impacts of the proposed Ventura County 2020 oil and gas ordinance revisions. These revisions include, per the November 10, 2020 Board letter:

- Amending NCZO section 8107-5.2, and CZO section 8175-5.7.2, “to require the issuance of a new discretionary conditional use permit (CUP), or approval of a discretionary permit adjustment or modification, to authorize all new oil and gas development, including that proposed under antiquated permits, unless the proposed development is already specifically described as being authorized under an existing CUP. New development triggering the need for discretionary approval would include, but not be limited to, the installation of new wells, tanks and other oilfield facilities, and the re-drilling or deepening of existing wells.”
- Amending NCZO section 8107-5.2, and CZO section 8175-5.7.2, “to state that the County's current oil development design guidelines and operational standards uniformly apply to all oil and gas exploration and production operations to the extent: (i) such guidelines and standards would impose more stringent requirements than those set forth in existing permit conditions, laws, or regulations applicable to the operation; and (ii) application of such guidelines and standards would not impair any vested right of an operator under California law.”.

The revisions will allow the County to require discretionary approval and environmental review of proposed new oil and gas production facilities on land covered by antiquated permits, and allow the County to apply its oil development guidelines and standards to all existing oil and gas production facilities. The guidelines and standards include setback restrictions, restrictions on the flaring of gas, limitations on the trucking of oil, and noise standards and restrictions.

In addition to the revisions proposed for the NCZO, there are new General Plan policies adopted by the Board in September that will be incorporated into the ordinance updates. They include; 1500-foot setback, no flaring and no trucking of produced fluids. According to the Board letter, “The proposed zoning amendments would make these new policies applicable to a broader range of proposed oil and gas development based on the new discretionary approval requirement for projects which, under the status quo, only requires a ministerial approval.” The way the proposed NCZO revisions are written, it is assumed that these policies will not only apply to new wells, but also to existing operations subject to a new or modified discretionary permit.

Instituting these NCZO and CZO revisions will negatively impact the oil and gas industry in Ventura County resulting in reduced oil and gas production. According to the Board letter, “the proposed zoning amendments could slow and/or reduce the potential expansion of new local oil and gas development ... due to the increased permitting costs and uncertainty that would be associated with the proposed discretionary permitting and environmental review process that would be required for certain new oil and gas development.” Additionally, the application of the NCZO guidelines and standards to existing operations will limit even existing oil and gas production.

As it was determined during the Draft Environmental Impact Report (DEIR) prepared for the Ventura County 2040 General Plan update, a reduction in Ventura County crude oil production would result in an increased reliance on foreign oil imports from outside of Ventura County. California does not have any interstate pipelines that supply crude oil to the State from other states, it is isolated from the larger national petroleum network and therefore must rely on foreign and Alaskan sources of oil that are transported by marine tankers.

This analysis considers the GHG impact of a reduction in Ventura County crude oil production and subsequent increase in the need for imported oil from outside of the 2040 General Plan area. The GHG impact is calculated using the following sources of information:

- Projections from Carbon California Company regarding their expected reductions in oil production as a result of the proposed ordinance revisions discussed above. Carbon reviewed existing operations in regards to setbacks, flaring and trucking to determine which assets would be affected and potentially shut-in by the revised ordinance. These include all of the upper Ojai/Santa Paula and Holser field operations. Primarily because of the setbacks that will be expanded to Carbon’s operations, especially the 1,500 setback from residential buildings, average daily production losses in these fields alone that arise from the proposed ordinance amendments are estimated to equate to 680 BBLs of oil and 2,000 MCF of gas (1,013 BOE).
- Annually the California Air Resources Board (CARB) estimates greenhouse gas (GHG) emissions from the production, processing, and transport of crude petroleum for each source of crude oil supplied as petroleum feedstock to California refineries pursuant to the LCFS Crude Oil Life Cycle Assessment program (<https://ww3.arb.ca.gov/fuels/lcfs/crude-oil/crude-oil.htm>). GHG emission factors called Carbon Intensity (CI) values are calculated for each petroleum source. For 2019, the volume weighted average CI of crude oil produced in Ventura County was 4.43 grams CO₂e/MJ, which is much lower than the California state average of 12.52 grams CO₂e/MJ for all crude oil produced in and imported to California.

GHG Impact: It is the difference between the CI values of crude oil produced in Ventura County and that of all crude oil produced and imported into California that provides the basis for calculating the GHG emission impact. Because the CI for Ventura County crude oil is lower, importing crude oil into California from outside of Ventura County to make up for the reduced Ventura County crude production associated with the proposed ordinance revisions will result in higher GHG emissions. The calculation used to estimate increased GHG emissions is shown below:

$$\text{Excess GHG (MT)} = (\text{California CI} \left(\frac{\text{gCO}_2}{\text{MJ}} \right) - \text{Ventura County CI} \left(\frac{\text{gCO}_2}{\text{MJ}} \right)) \times 6,012 \frac{\text{MJ}}{\text{bbl}} \times 1/1000000 \text{ (MT/g)} \times \text{Reduced Crude Production (bbl)}$$

Using the calculation methodology above and the Carbon supplied estimates of expected crude oil production losses due to the proposed ordinance changes yields the following GHG impacts:

| | | |
|--|---------|---------------------------|
| | 680 | Barrels per day |
| Carbon estimate of crude oil production losses: | 248,200 | Barrels per year |
| Increased GHG emissions due to loss of crude oil production: | 12,065 | MT CO ₂ e/year |

Significance Discussion: The Ventura County Air Pollution Control District (VCAPCD) has not yet adopted an approach to setting a threshold of significance for land use development projects nor has the VCAPCD developed its own method of determining significance in the area of project GHG emissions. In its 2011 memorandum entitled *Greenhouse Gas Thresholds of Significance Options for Land Use Development Projects in Ventura County* the VCAPCD concluded:

- *Establishing local CEQA significance thresholds for global-scale environmental concerns like global warming and climate change has been a major challenge for all those who have undertaken the effort. CEQA was designed for and works best for projects with local to regional scale environmental effects...*
- *GHG emissions are not like local air pollutant emissions that only affect the area in which they are emitted. Local GHG emissions potentially affect the entire globe.*
- *Given that Ventura County is adjacent to the South Coast AQMD jurisdiction and is a part of the Southern California Association of Governments region, District staff believes it makes sense to set local GHG emission thresholds of significance for land use development projects at levels consistent with those set by the South Coast AQMD.*

The current SCAQMD Air Quality Significance Threshold for GHG is 10,000 MT CO₂e per year for industrial facilities (such as oil and gas facilities). This suggests the potential increase in GHG emissions associated with the zoning amendments would be considered significant under CEQA.

Equivalent GHG Emissions: In order to better understand GHG emissions discussed above, the EPA has created a Greenhouse Gas Equivalencies Calculator that can translate GHG emission numbers into equivalent emissions from cars, households, or power plants. The calculator can be found at:

<https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator>

Using this calculator and applying the increased GHG emissions estimated in this analysis shows increased 2021 GHG emission of 12,065 MT CO₂e/year is equivalent to annual GHG emissions from 2,607 cars or 29,937,965 miles driven by an average passenger vehicle.

Please feel free to call me if you have any questions.

Respectfully submitted,



Rob Dal Farra, P.E.
Vice President
Sespe Consulting, Inc.

Attachments:

- Calculation of increased GHG emissions

$$\text{Excess GHG (MT)} = (\text{California CI} \left(\frac{\text{gCO}_2}{\text{MJ}} \right) - \text{Ventura County CI} \left(\frac{\text{gCO}_2}{\text{MJ}} \right)) \times 6,012 \frac{\text{MJ}}{\text{bbl}} \times 1/1000000 \text{ (MT/g)} \times \text{Reduced Crude Production (bbl)}$$

CALCULATIONS & ASSOCIATED FACTORS ASSUMED:

2019 Carbon Intensity (CI) values published by the California Air Resources Board pursuant to the LCFS Crude Oil Life Cycle Assessment

The life cycle assessment includes direct emissions associated with producing, transporting, and using the fuels

| | |
|---------------|---|
| 12.52 | gCO ₂ /MJ - Weighted average carbon intensity (CI) of crude consumed in California (gram CO ₂ e per megajoule) |
| 4.43 | gCO ₂ /MJ - Weighted average carbon intensity (CI) of crude consumed produced in Ventura County (gram CO ₂ e per megajoule) |
| 8.09 | gCO ₂ /MJ difference (impact of imported oil) |
| 6,012 | MJ/bbl - average MJ of energy per barrel of crude oil (from U.S. Energy Information Administration) |
| 48,610 | gCO ₂ /bbl of crude oil difference (impact of imported oil) |
| 1,000,000 | gram per metric ton (g/MT) |
| 0.048610 | MT CO ₂ /bbl difference (impact of imported oil) |
| 680 | Carbon bbl/day crude oil lost due to proposed oil & gas ordinance revisions |
| 248,200 | Carbon bbl/year crude oil lost due to proposed oil & gas ordinance revisions |
| 12,065 | excess MT CO ₂ created per year by loss of Carbon crude produced in Ventura County |

August 28, 2020

Ms. Jane Farkas
Director Land and Regulatory Affairs
Carbon California Company
270 Quail Court, Suite B
Santa Paula, CA 93060

Re: Greenhouse Gas Impacts of Proposed General Plan Update Oil and Gas Policies

Dear Ms. Farkas,

Sespe Consulting, Inc. (Sespe) has prepared this report to present the findings of our analysis evaluating the potential Greenhouse Gas (GHG) impacts of the proposed Ventura County 2040 General Plan Update oil and gas policies. These policies include:

- **Policy COS-7.2 - Oil Well Distance Criteria:** The County shall require that new discretionary oil wells be sited a minimum of 1,500 feet from the well head to sensitive use structures which include dwellings, childcare facilities, hospitals and health clinics and 2,500 feet from school property lines.
- **Policy COS-7.4 - Electrically-Powered Equipment for Oil and Gas Exploration and Production:** The County shall require discretionary development for oil and gas exploration and production to use electrically-powered equipment from 100 percent renewable sources and cogeneration, where feasible.
- **Policy COS-7.7 - Limited Conveyance for Oil and Produced Water:** The County shall require new discretionary oil wells to use pipelines to convey crude oil and produced water; oil and produced water shall not be trucked.
- **Policy COS-7.8 - Limited Gas Collection, Use, and Disposal:** The County shall require that gases emitted from all new discretionary oil and gas wells be collected and used or removed for sale or proper disposal. Flaring or venting shall only be allowed in cases of emergency or for testing purposes.
- **Implementation Program M - Oil and Gas Tax:** The County shall evaluate the feasibility of establishing a local tax on oil and gas operations located in the unincorporated county.

In its evaluation of these policies, the Draft Environmental Impact Report (DEIR) prepared for the Ventura County 2040 General Plan states the impacts could include:

- Reduced oil and gas production.
- Preclude expansion of existing oil and gas operations, as well as drilling of new discretionary wells, thereby hampering or precluding access to the resource.
- Would implement permitting challenges that may affect the feasibility of local oil and gas production and, in turn, would increase the reliance on foreign imports from outside of the 2040 General Plan area. California does not have any interstate pipelines that supply crude oil to the State from other states, it is isolated from the larger national petroleum network and therefore must rely on foreign and Alaskan sources of oil that are transported by marine tankers.

- (Policies) could theoretically affect local oil and gas exports and increase the reliance on imports from outside of the 2040 General Plan area.
- Effectively prohibit the development of new discretionary oil and gas wells located outside of a two-mile radius of a major gas transmission pipeline by most operators due to the costs and technical complexities associated with treating the gas onsite, constructing pipeline interconnections, and connecting to the SoCalGas transmission line which does not guarantee the acceptance of gas on a daily basis.

This analysis considers the GHG impact of a reduction in Ventura County crude oil production and subsequent increase in the need for imported oil from outside of the 2040 General Plan area. The GHG impact is calculated using the following sources of information:

- Capitol Matrix Consulting (Capitol) prepared an analysis of potential future reduced crude oil production associated with the proposed General Plan policies entitled “Impact of Ventura County’s General Plan Update on the Oil and Gas Production Industry”. The Capitol Matrix Consulting report is based in part of information provided by oil and gas producers in the County of Ventura regarding how the General Plan policies would affect their operations. The information relied on by Capitol is for the purpose of addressing the 2040 General Plan EIR. It may not capture all reserve losses from General Plan implementation. Individual operators may be affected by the policies differently and may see greater reserve losses.
- Projections from Carbon California Company regarding their expected reductions in the available reserves and production as a result of the proposed General Plan policies discussed above.
- Annually the California Air Resources Board (CARB) estimates greenhouse gas (GHG) emissions from the production, processing, and transport of crude petroleum for each source of crude oil supplied as petroleum feedstock to California refineries pursuant to the LCFS Crude Oil Life Cycle Assessment program (<https://ww3.arb.ca.gov/fuels/lcfs/crude-oil/crude-oil.htm>). GHG emission factors called Carbon Intensity (CI) values are calculated for each petroleum source. For 2019, the volume weighted average CI of crude oil produced in Ventura County was 4.43 grams CO₂e/MJ, which is much lower than the California state average of 12.52 grams CO₂e/MJ for all crude oil produced in and imported to California.

Potential Impact to Ventura County Producers: It is the difference between the CI values of crude oil produced in Ventura and that of all crude oil produced and imported into California that provides the basis for calculating the GHG emission impact. Because the CI for Ventura County crude oil is lower, importing crude oil into California from outside of Ventura County to make up for the reduced Ventura County crude production associated with the General Plan policies will result in higher GHG emissions. The calculation used to estimate increased GHG emissions is shown below:

$$\text{Excess GHG (MT)} = (\text{California CI} \left(\frac{\text{gCO}_2}{\text{MJ}} \right) - \text{Ventura County CI} \left(\frac{\text{gCO}_2}{\text{MJ}} \right)) \times 6,012 \frac{\text{MJ}}{\text{bbl}} \times 1/1000000 (\text{MT/g}) \times \text{Reduced Crude Production (bbl)}$$

The calculation of increased GHG emissions are attached and summarized below for 2021, 2026 and 2031, the three years analyzed by Capitol. The following table summarizes the reduced crude oil production estimated by Capitol:

| Reduction in Crude Oil Production (barrels) | | | |
|---|----------------|------------------|------------------|
| | 2021 | 2026 | 2031 |
| COS 7.2 - 1,500 & 2,500 foot setback: | 49,000 | 354,000 | 505,000 |
| COS 7.4 - 100% renewable sources for new O&G development: | 240,000 | 1,730,000 | 2,500,000 |
| COS 7.7 - Prohibition on trucking crude and produced water: | 54,000 | 390,000 | 560,000 |
| COS 7.8 - Restrict flaring of natural gas on new wells: | 200,000 | 1,440,000 | 2,080,000 |
| Implementation Program M: Oil and Gas Tax: | 160,000 | 1,140,000 | 1,640,000 |
| Total: | 703,000 | 5,054,000 | 7,285,000 |

The following table summarizes the calculated increase in GHG emissions in Metric Tons (MT) associated with the General Plan policies:

| Annual Increased GHG Emissions (MT CO ₂ e) | | | |
|---|---------------|----------------|----------------|
| | 2021 | 2026 | 2031 |
| COS 7.2 - 1,500 & 2,500 foot setback: | 2,382 | 17,208 | 24,548 |
| COS 7.4 - 100% renewable sources for new O&G development: | 11,666 | 84,096 | 121,526 |
| COS 7.7 - Prohibition on trucking crude and produced water: | 2,625 | 18,958 | 27,222 |
| COS 7.8 - Restrict flaring of natural gas on new wells: | 9,722 | 69,999 | 101,109 |
| Implementation Program M: Oil and Gas Tax: | 7,778 | 55,416 | 79,721 |
| Total: | 34,173 | 245,676 | 354,126 |

Potential Impact to Carbon: Using the calculation methodology above and the Carbon supplied estimates of potential crude oil reserves losses due to the General Plan policies, the GHG impacts resulting from Carbon's operations are shown below:

| | | |
|--|----------------|---------------------------|
| Carbon estimate of undeveloped Ventura County reserves: | 39,088,000 | barrels |
| Potential reduction due to G.P. policies (Capitol): | 40% | |
| Estimated Carbon reduction in oil reserves due to G.P. policies: | 15,635,200 | barrels |
| Increased GHG emissions due to reduction of oil reserves: | 760,032 | MT CO ₂ e |
| Annual GHG assuming 75% was produced over the next 50 years: | 11,400 | MT CO ₂ e/year |

These calculations assume the following:

- A 40% reduction in oil reserves would occur due to the proposed General Plan policies. This is based on the estimates found in the Capitol analysis which showed reductions ranging from 8% to 40% depending on the policy. Instead of summing the potential reductions, the analysis conservatively assumed 40%.
- 75% of the lost future production due to the reduction or inaccessibility of oil reserves would have occurred over the 50 years following adoption of the General Plan policies. Even though Carbon's internal planning is to extract the crude oil reserves over the next 25 years, in order to be conservative a 50-year period was used. The total GHG impact (760,032 MT CO₂e) was divided by 50 years to obtain an average annual GHG impact (11,400 MT CO₂e/year).

Significance Discussion: As stated in the DEIR, the Ventura County Air Pollution Control District (VCAPCD) has not yet adopted an approach to setting a threshold of significance for land use development projects nor has the VCAPCD developed its own method of determining significance in the area of project GHG emissions. In its 2011 memorandum entitled *Greenhouse Gas Thresholds of Significance Options for Land Use Development Projects in Ventura County* the VCAPCD concluded:

- *Establishing local CEQA significance thresholds for global-scale environmental concerns like global warming and climate change has been a major challenge for all those who have undertaken the effort. CEQA was designed for and works best for projects with local to regional scale environmental effects...*
- *GHG emissions are not like local air pollutant emissions that only affect the area in which they are emitted. Local GHG emissions potentially affect the entire globe.*
- *Given that Ventura County is adjacent to the South Coast AQMD jurisdiction and is a part of the Southern California Association of Governments region, District staff believes it makes sense to set local GHG emission thresholds of significance for land use development projects at levels consistent with those set by the South Coast AQMD.*

The current SCAQMD Air Quality Significance Threshold for GHG is 10,000 MT CO₂e per year for industrial facilities (such as oil and gas facilities). This suggests the potential increase in GHG emissions associated with the General Plan policies would be considered significant.

The DEIR concludes:

For the purpose of this draft EIR, implementation of the 2040 General Plan would have a significant GHG emissions impact if it would:

- *Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment.*
- *Conflict with an applicable plan, policy, or regulation for the purpose of reducing the emissions of GHGs.*

The results of this analysis show that the proposed General Plan policies related to oil and gas facilities would trigger both of these criteria.

Equivalent GHG Emissions: In order to better understand GHG emissions discussed above, the EPA has created a Greenhouse Gas Equivalencies Calculator that can translate GHG emission numbers into equivalent emissions from cars, households, or power plants. The calculator can be found at:

<https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator>

Using this calculator and applying the increased GHG emissions estimated in this analysis yields the following:

- Increased 2021 GHG emission of 34,173 MT CO₂e/year is equivalent to annual GHG emissions from 7,383 cars or 84,796,526 miles driven by an average passenger vehicle.
- Increased 2026 GHG emission of 245,676 MT CO₂e/year is equivalent to annual GHG emissions from electricity use in 41,594 homes.

- Increased 2031 GHG emission of 354,126 MT CO₂e/year is equivalent to annual GHG emissions from consuming 39,847,643 gallons of gasoline.

Please call me at (805) 275-1515 if you have any questions.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Rob Dal Farra".

Rob Dal Farra, P.E.
Vice President
Sespe Consulting, Inc.

Attachments:

- Impact of Ventura County's General Plan Update on the Oil and Gas Production Industry, Capitol Matrix Consulting
- Calculation of 2019 Crude Average Carbon Intensity Value, CARB
- Calculation of increased GHG emissions

Impact of Ventura County's General Plan Update on the Oil and Gas Production Industry

Executive Summary

Ventura County ("County") is preparing a comprehensive update of its General Plan. The update will significantly shape the ability of businesses to invest and grow in the County over the next 20 years, which in turn will affect employment opportunities, tax revenues and public services in the County. The Draft General Plan has six provisions directly affecting the oil and gas (O&G) production industry, which are briefly summarized in Figure 1, along with our assessment of their key impacts on the O&G industry and the Ventura economy. (More detailed estimates of potential impacts are provided in the "Impacts of Individual Provisions" section below.)

Figure 1
Provisions of Ventura County General Plan Affecting the O&G Industry

| Provision | Impact on Future Production, Jobs and Local Revenues* |
|--|--|
| 1. Requires County to evaluate the feasibility of a local tax on new oil and gas operations located in the unincorporated county (COS 8.1) | Potentially major reduction in O&G production, jobs, and existing state and local taxes if a new local tax is adopted. |
| 2. Imposes setback requirements for oil wells of 1,500 feet from residential dwellings and 2,500 feet from schools (COS 7.2) | About 8 percent of new countywide production would be affected, as well as other land use around existing fields. |
| 3. Requires new development to be powered by electricity from 100% renewable sources, if feasible (COS 7.4) | Potentially major impact on drilling, which currently relies on portable rigs with internal combustion engines, as well as significant effects on local electricity demand and infrastructure. |
| 4. Prohibits trucking of crude oil or produced water from new wells except for emergencies and testing. (COS 7.7) | Potentially major impact – likely in the range of 10 percent of future development - due to lack of rights of way or pipeline or storage capacity. |
| 5. Restricts flaring of natural gas on new wells except for emergencies and testing. (COS 7.8) | Provision conflicts with comprehensive state regulations. Potentially major impact on future investment and production. |
| 6. Requires evaluations of WST and EOR projects for seismic, groundwater, greenhouse gas emission, and other impacts. (COS 7.4) | Provision conflicts with comprehensive state regulatory requirements. Potentially major impact on future investment and production. |

* Impact if implemented as written.

The individual provisions would have varying impacts, which in several cases are potentially substantial. In some instances, the provisions conflict with comprehensive federal and state laws and regulations, and they impose conditions that would force property owners and operators to significantly expand the scope of projects.

The cumulative impact of all the provisions would be major. Taken together, they would eliminate potentially attractive opportunities for new investment, raise industry costs, sharply reduce the return on investment for future projects, and prevent reasonable access to mineral properties. By doing so, the provisions would eliminate a large portion of the projected 2,700 jobs and \$28 million per year in local revenues projected to be attributable to the industry by 2031.

Even in otherwise good economic times, such impacts would mean fewer high-paying job opportunities for blue-collar workers, and the revenue reductions would put at risk funding for schools, public safety, and other vital government services. Over the next several years, such reductions would have potentially devastating impacts on the economy and public services. The industry-related reductions would be occurring at a time when Ventura County, like the rest of California and the nation, is struggling to recover from the economic and budget impacts of the Covid-19 related economic contraction.

Background: Oil and Gas Production Industry in Ventura County

The oil and gas (O&G) production industry has been an economic force in Ventura County for more than a century. Crude oil production in the County totaled 6.9 million barrels in 2018, making Ventura the fourth largest oil producing county in California.¹ This production, which accounts for slightly over 4 percent of the statewide total, plays an important role in reducing California's dependence on oil from remote foreign sources in the Middle East and South America – countries that do not apply California's stringent safety, labor, human rights and environmental standards.

The local O&G industry also provides valuable economic and fiscal benefits to Ventura County. The industry is an important source of high paying, full time jobs, many of them in occupations open to those with high-school and technical degrees. It is also an important source of taxes paid to state and local governments in the region, supporting local schools, public safety, and other vital services. Figure 2 summarizes the industry's key contributions in 2020, along with projections for 2021, 2026 and 2031 assuming modest increases in global oil prices over the decade.²

It shows, for example, that 1,950 jobs in Ventura County are attributable to the oil and gas production industry, of which 760 are workers directly employed by oil major oil producers and support companies, and 1,190 are workers employed by companies that supply goods and services to the oil and gas producers and their employees. Average pay for O&G production industry workers in 2018 was \$116,000 per year, more than double the average for the rest of the private sector (\$53,000).

¹ Natural gas production in the County totaled a 6.2 billion cubic feet in 2018 (1.1 million barrels of oil equivalent), just under 4 percent of the statewide total. All of the gas is "associated gas," produced along with oil extraction.

² Our estimates are based on an update and extension of the impacts presented in our December 2017 report (Economic and Tax Revenue Impacts of Oil Production in Ventura County, Capitol Matrix Consulting, December 2017). In both cases, the estimates of direct economic impacts are based primarily on data from public sources, including CalGEM (for oil production); the U.S. Energy Information Administration (EIA) for crude oil prices; the California Employment Development Department (Quarterly Census on Employment and Wages) for employment and wages; and County Assessor's reports for local property taxes. Multiplier effects are estimated using the IMPLAN input-output model for the Ventura County.

The industry is also responsible for \$36 million in state taxes and \$20 million in local taxes annually in Ventura County. The local taxes support school districts, public safety, and other vital services within the County.

As indicated in Figure 2, contributions from the O&G production industry are expected to expand over the next decade under current law. This projection assumes real (inflation-adjusted) oil prices climb modestly from current levels over the next decade, and that producers are able to obtain permits and initiate new projects to replace natural decline in oil and gas output from existing wells over time.³

Figure 2
Annual Economic Contributions of O&G Production Industry
Ventura County: Existing Law

| Economic/Tax Measure | 2020 | 2021 | 2026 | 2031 |
|---|-------------|-------------|-------------|-------------|
| Output (\$ Millions) | | | | |
| Direct | \$428 | \$456 | \$540 | \$602 |
| Multiplier | \$253 | \$282 | \$358 | \$417 |
| Total | \$681 | \$739 | \$898 | \$1,019 |
| | | | | |
| Jobs | | | | |
| Direct | 760 | 800 | 920 | 980 |
| Multiplier | 1,190 | 1,260 | 1,660 | 1,780 |
| Total | 1,950 | 2,060 | 2,580 | 2,760 |
| | | | | |
| State Taxes and Fees (\$ Millions) | | | | |
| Direct | \$23 | \$25 | \$31 | \$36 |
| Multiplier | \$13 | \$14 | \$16 | \$20 |
| Total | \$36 | \$39 | \$47 | \$56 |
| | | | | |
| Local Taxes and Fees (\$ Millions) | | | | |
| Direct | \$14 | \$16 | \$20 | \$24 |
| Multiplier | \$6 | \$7 | \$8 | \$10 |
| Total | \$20 | \$23 | \$28 | \$34 |

³ Capital spending is crucial to offsetting the natural decline in well production that occurs as reservoirs are depleted. Absent exploration and development of new fields, additional drilling of wells in currently producing fields, and other investments aimed at optimizing field production and recoverable reserves, O&G production will fall, and along with it the associated economic and fiscal benefits to the local region. We estimate that absent any new investment, a typical decline rate for fields in California is up to 15 percent per year. This implies that policies eliminating *all* new investment would result in an 80 percent decline in production within a decade.

Comparison to 2017 estimate. The current O&G related projections are lower than those we presented in late 2017. That earlier forecast was predicated on (1) an increase in investment and oil production in the County as crude oil prices rebounded and the industry stabilized, and (2) timely issuance of permits and approvals by the County and state agencies.⁴ Neither has occurred, and as a consequence we have revised downward our estimates of O&G production and associated economic activity. For example, our current estimate of industry-related jobs (direct and multiplier effects) in 2020 is down over 800 employees from our earlier estimate, while our current estimate of state and local taxes is down \$11 million.

Part of the decline is related to industry factors, such as the lack of a sustained increase in crude oil prices. However, in the past two years, the processes for permitting and approvals at both the County and state agencies have been less predictable in terms of timeliness, cost and consistency. Accordingly, County and state regulatory policies and practices have been a major factor in the decline in investment in Ventura County O&G production. Specifically, Ventura County O&G operators have experienced sharp slowdowns and delays in County approvals of new conditional use permits, and even in ministerial County zoning clearances. They have also faced delays in approvals for state permits and underground injection, which facilitates efficient oil and gas production and recycling and management of produced water. In addition, the County imposed a moratorium on steam injection wells in one field that shut down one local O&G producer entirely. These delays have impacted millions of barrels of new oil production and thousands of jobs statewide, and already caused the shutdown of businesses in Ventura County and the loss of hundreds of local jobs.

The result of these regulatory policies has been continued declines in oil production throughout California, including in Ventura County. These declines are in sharp contrast to other major oil-producing states in the western U.S., all of which have experienced increased investment, employment, and production over the past three years.

In short, regulatory policies matter, and those policies envisioned in the Ventura County draft General Plan would further depress O&G production and associated economic activity in the County.

Update to General Plan

Since 2016, Ventura County has been working on a comprehensive update to its General Plan. It completed a draft General Plan in the Summer of 2019, and released the Environmental Impact Report (EIR) associated with the Plan in January 2020. (The EIR presents information about a project's environmental effects, and includes options and/or reasonable alternatives for minimizing effects in cases where they are found to be significant.) The draft General Plan includes six recommendations directly affecting the oil and gas production industry (outlined in Figure 1). In three of the instances, the EIR includes alternative language. For example, it reduces the maximum setback distances from 2,500 to 1,500 feet and broadens the definition of sensitive land uses; and it inserts clauses "if feasible" or "where feasible" in provisions related to electrification, flaring, and trucking of crude oil and produced water. Our description and analysis of the individual provisions are based on the General Plan language as modified by the EIR.

⁴ "Economic and Tax Revenue Impacts of Oil Production in Ventura County." Capitol Matrix Consulting, December 2017.

Will the “if feasible” and “where feasible” clauses reduce negative impacts? According to the EIR, the addition of “if feasible” and “where feasible” clauses to various provisions is intended to make the requirements more workable, and to mitigate losses of valuable oil and gas resources. Unfortunately, there is no assurance that the additions will have the desired effect. The term “feasible” could be interpreted multiple ways. It may be *technically* feasible to comply with a requirement, but disputes may arise regarding whether a required change is feasible from an *economic* standpoint. For example, disputes can arise regarding costs and expected payoffs of a proposed development after taking into account General Plan requirements, which at a minimum, will add time, uncertainty, and expenses involved in approval for the project. It is also unclear whether the feasibility criteria adequately address *property ownership and access* issues (such as securing rights of way for electric transmission lines or pipelines), or it works from *health, safety, and environmental* perspectives. In all cases, these provisions appear to impose on a property owner or operator the requirement to evaluate a much larger project surface footprint and scope, such as additional power lines and pipelines.

For these reasons, our economic and fiscal analyses are based on the assumption that only limited exceptions to the stated policy are allowed, and that in cases where compliance is not economically feasible, new drilling and related projects would be precluded, thereby impacting the rights of both surface and mineral property owners and operators.

Evaluations of Individual Provisions of the Draft Plan

In this section, we analyze the individual provisions of the General Plan directly affecting the O&G industry. Our modeling of the local tax impacts on O&G production is based on methodology and sources described in a report on oil and gas-related taxation we issued in July 2019.⁵ Our analysis of setbacks is based on information provided by *Catalyst Environmental Solutions*⁶ of the impacts of oil and gas well setbacks on and gas production in the County. Analyses of provisions involving electrification, flaring, pipeline transportation requirements, and WSTs/EOR are based partly on information provided by producers in the County regarding how such requirements would affect their operations, although the economic and tax consequences are based on our own modeling of the effects.

Local Tax on Oil and Gas Operations

GP Provision. “The County shall evaluate the feasibility of establishing a local tax on new oil and gas operations located in the unincorporated county.”

Impacts. An additional local tax on Ventura County producers would have a substantial impact on their operations. Producers in the County already incur much-above average expenses related to lengthy and expensive permitting processes as well as high costs for labor, insurance, energy and supplies needed for investment and operations.⁷ In addition, many operations in the County involve extraction of oil from legacy fields dating back to the early 1900s. The extraction often requires advance recovery technologies including expensive water flooding or cyclic steam operations involving injection wells, pumps, fuel and other resources.

⁵ “Impact of a Severance Tax on Oil Production and the California Economy.” Capitol Matrix Consulting, July 2019.

⁶ “Evaluation of the Effects of County-wide Setbacks on Ventura County Oil and Gas Production.” Catalyst Environmental Solutions. Letter to Californians For Energy Independence, January 9, 2020.

⁷ For example, Southern California Edison charges industrial users 11 cents per kilowatt hour of electricity in 2017, compared to rates of between 5 cents and 7 cents charged to industrial users in Oklahoma, Texas, and North Dakota.

Producers in Ventura also face substantial state and local taxes and fees. These include an ad-valorem tax on O&G reserves well before they are extracted from the ground, sales taxes on equipment purchases, and much above-average income taxes on profits and royalties. California also imposes cap and trade allowances and extensive regulatory fees for reporting and monitoring of environmental impacts. These charges far surpass those in other states.

Given the already substantial costs facing producers in the County, implementation of a new local tax would have significant impacts on new investment. It would sharply raise future production costs and lower the expected return-on-investment (ROI) for new projects in the County relative to other regions. The decline in relative rate of return is particularly important given that oil companies and global investors allocate capital budgets to projects – both within the U.S. and internationally – based on relative rates of return. In this regard, Ventura directly competes for investment capital with oil-producing regions around the world.

We estimate that a 10 percent local severance tax would lower the ROI on a typical project by about 21 percentage points. Such a decline would push expected returns on many projects below minimum thresholds required by O&G firms for new investments in Ventura County.

For illustrative purposes, we estimated impacts on investment assuming that the elasticity of investment with respect to changes in ROI is 1.0 (that is, a 1 percentage point reduction in ROI translates into a 1 percent reduction in investment). This would translate into a loss in investment in Ventura County of roughly \$40 million per year.⁸ The annual impacts of such a loss on production, jobs and taxes would quickly add up, as shown in Figure 3.

Figure 3
Impact of 10 Percent Local Severance Tax on New Production
in Ventura County

| Reduction in: | 2021 | 2026 | 2031 |
|---------------------------|-------------|-------------|-------------|
| Oil Production (Barrels) | -160,000 | -1,140,000 | -1,640,000 |
| Jobs | -280 | -530 | -690 |
| State Revenues (millions) | -\$2.1 | -\$6.7 | -\$13.0 |
| Local Revenues | -\$4.0 | -\$6.9 | -\$11.0 |

It shows that such a tax would result in an annual reduction of 690 jobs within a decade – or more than one quarter of the current-law baseline. The tax would also drive down revenues from existing revenue sources by \$13 million for state taxes and fees, and by \$11 million for local taxes and fees. The local revenue losses are largely due to the negative impacts that the severance tax would have on the assessed valuation of oil and gas reserves.⁹ The loss of property taxes would negatively

⁸ Assumes that in typical year, total O&G investment in California is \$5 billion (roughly the average of the past decade) and that Ventura County accounts for about 4.5 percent of the statewide total, or about \$200 million.

⁹ The assessed value of oil and gas reserves is based on the present value of future net cash flows generated by the extraction of oil and gas from the reserves. These net cash flows would be reduced by a severance tax because crude oil prices in the near term are determined by global market conditions, and thus producers would not be able to pass the cost of the tax forward to refiners.

impact multiple government agencies – reducing local resources needed for police, fire protection, schools, and other local services.

Setbacks for New Oil Wells

GP Provision. “The County shall require new discretionary oil wells to be located a minimum of 1,500 feet from residential dwellings and 2,500 feet from any school.”

Impacts. On August 24, 2020, Catalyst Environmental Solutions estimated the effects of setback requirements for oil wells of 1,500-foot oil well setback from residential dwellings and 2,500 feet from schools.

The estimate is based on detailed GIS files for wells obtained from the California Department of Conservation, and a variety of other files capturing land uses within the County identified as sensitive in the draft General Plan. It found that 162 wells and 558,309 barrels of annual oil production would be affected by the proposed setback. To put this amount in perspective, it is only modestly less than total production in San Luis Obispo (595,000 barrels), the eighth largest producing county in California in 2018.

While existing wells would be able to continue producing under the draft General Plan, the restriction on new development would have a growing effect on future production and the ability of mineral owners to access their property, as opportunities for investment in replacement production become constrained. Directional drilling would not be possible to replace all the reserves/resources due to the terrain of surrounding areas being limited by surface restrictions proposed by the draft General Plan as well as the reservoir’s structural needs. Assuming that 8 percent of future production from potential projects is affected, the proposed setback requirement would result in annual losses of 205 jobs, \$5.2 million in state revenues and \$2.8 million in local revenues within a decade.

Figure 4
Economic Impacts of Setbacks,
Assuming 8 Percent of Future Development Is Affected

| Reduction in: | 2021 | 2026 | 2031 |
|------------------------------|-------------|-------------|-------------|
| Oil Production (Barrels) | -49,000 | -354,000 | -505,000 |
| Jobs | -91 | -162 | -207 |
| State Revenues (\$ Millions) | -\$1.7 | -\$3.6 | -\$5.2 |
| Local Revenues (\$ Millions) | -\$1.0 | -\$2.0 | -\$2.8 |

Importantly, the foregoing analysis does not reflect the fact that land use setbacks are reciprocal, meaning that they would prevent the drilling of a new well within the specified distance of a residence or school, for example, and also prevent the construction of a residence or school within the same distance of an existing well. This feature would restrict surface use and development surrounding existing oil and gas fields in the County, creating “no-build” zones at a time when the County and the State face a growing housing and homelessness crisis.

Electrification of Power Sources

GP Provision. “The County shall require discretionary development for oil and gas exploration and production to use electrically-powered equipment from 100 percent renewable sources and cogeneration, where feasible, to reduce air pollution and greenhouse gas emissions from internal combustion engines and equipment.”

Impacts. Based on our review with local O&G producers, over 95 percent of current production is from wells using electrical power. In the instances where non-electrical sources were noted by producers, the responses were mixed regarding how they would respond to an electrification requirement. In some instances, the power sources would be converted to electricity; in other cases, where electric power is not readily available, production would be shut down.

We note that most of the electrical energy is supplied by Southern California Edison, which as of 2018, used renewable sources to supply about 35 percent of its electrical power. It is not clear whether that percentage would be sufficient to meet the 100 percent renewable/cogeneration requirement, or if producers would be required to develop on-site power generation such as solar systems to meet the requirement.

While impacts on current well production are modest, the effects on *well drilling* would be much more pronounced. This is because drilling in Ventura County (like most other locations in California and the world) is largely accomplished by portable rigs powered by internal combustion engines. While sometimes technically possible to shift to electric power, the costs to upgrade the electrical infrastructure would be substantial, and only economically feasible in areas located near current power grids. The power needs for deeper wells or certain types of formations also may exceed the capacity of electric rigs. A specific concern raised by operators is that, given uncertainties associated with exploration and drilling ventures, running power to an area where the prospect for future production is uncertain would be economically infeasible, as well as posing regulatory delays to gain property access and permits. In these instances, the County’s General Plan would prevent the producers from conducting new drilling in the County, thereby preventing mineral owners from accessing their property.

We estimate that if producers were not able to obtain exemptions, drilling would fall by 40 percent or more. The reduced drilling and subsequent declines in production would translate into annual losses of over 1,000 jobs, \$25 million in state revenues, and \$15 million in local revenues attributable to the industry within a decade.

Figure 5
Economic Impacts of Electrification Requirement,
Assuming 40 Percent Reduction in Annual Drilling

| Reduction in: | 2021 | 2026 | 2031 |
|------------------------------|----------|------------|------------|
| Oil Production (Barrels) | -240,000 | -1,730,000 | -2,500,000 |
| Jobs | -430 | -810 | -1,040 |
| State Revenues (\$ Millions) | -\$8 | -\$18 | -\$25 |
| Local Revenues (\$ Millions) | -\$5 | -\$10 | -\$15 |

Flaring Restrictions

GP Provision. “The County shall require that gases emitted from all new discretionary oil and gas wells be collected and used or removed for sale or proper disposal, if feasible. Flaring or venting shall only be allowed if the proponent demonstrates that conducting operations without flaring or venting is infeasible. In addition, flaring or venting is allowed in cases of emergency and for testing purposes, consistent with federal State, and local regulations.”

Impacts. State law expressly provides for the flaring of natural gas and the Ventura County Air Pollution Control District permits flaring, such as during emergencies, testing, power outages, and maintenance of wells, facilities and pipelines. The draft General Plan language does not provide any exception for maintenance, which conflicts with comprehensive state air quality laws and regulations, and would have a significant impact on well operations.

Avoiding flaring under all circumstances would require producers to make major investments and incur higher ongoing operating costs to maintain production. It would require the installation of significant additional equipment that would, itself, involve additional permitting and emissions. We estimate about one third of existing wells would be shut down if flaring restrictions were imposed with no exemptions for maintenance or other events. If we assume that a similar one-third of new wells will be affected by the no-flaring provision, the impact would be annual reductions of 870 jobs, \$20 million in state revenues and \$12 million in local revenues within a decade (see Figure 6).

Figure 6
Economic Impacts of Flaring Restrictions,
Assuming One-Third Reduction in Annual Drilling

| Reduction in: | 2021 | 2026 | 2031 |
|------------------------------|----------|------------|------------|
| Oil Production (Barrels) | -200,000 | -1,440,000 | -2,080,000 |
| Jobs | -386 | -670 | -870 |
| State Revenues (\$ Millions) | -\$7 | -\$15 | -\$20 |
| Local Revenues (\$ Millions) | -\$4 | -\$8 | -\$12 |

Trucking of Oil and Produced Water

GP Provision. “County shall require new discretionary oil wells to use pipelines to convey crude oil and produced water, if feasible. Trucking of crude oil and produced water may only be allowed if the proponent demonstrates that conveying the oil and produced water via pipeline is infeasible. In addition, trucking of crude oil and produced water is allowed in cases of emergency and for testing purposes consistent with federal, state and local regulations.”

Impacts. About 550,000 BOE of annual oil and gas production are currently transported by truck, which is 9 percent of the total product. (If natural gas liquids are included in the totals, the share of product affected would be roughly 20 percent of total production.) Company representatives indicate that in most cases where product is currently trucked, it would not be economically feasible to run dedicated pipelines to the sites. Figure 7 (next page) shows the potential impacts assuming 9 percent of potential future development is in areas where pipeline transportation is not

feasible. It shows that the provision would result in annual losses of 230 jobs, \$5.7 million in state revenues and \$3.2 million in local revenues within a decade.

Figure 7

**Impact of Restrictions on Trucking of Crude Oil and Produced Water,
Assuming 9 Percent of Future Development Is Affected**

| Reduction in: | 2021 | 2026 | 2031 |
|------------------------------|---------|----------|----------|
| Oil Production (Barrels) | -54,000 | -390,000 | -560,000 |
| Jobs | -95 | -180 | -230 |
| State Revenues (\$ Millions) | -\$1.9 | -\$4.1 | -\$5.7 |
| Local Revenues (\$ Millions) | -\$1.0 | -\$2.2 | -\$3.2 |

Well Stimulation and EOR Evaluations

GP Provision. “The County shall require discretionary projects that include fracking, well stimulation treatment, cyclic steaming, and/or steam flooding be evaluated for potential effects on ground water contamination, exacerbation of seismic activity, water use, greenhouse gas (GHG) emissions, and other impacts.”

This provision conflicts with the state’s comprehensive regulatory requirements governing both well stimulation and enhanced oil recovery (EOR). Ventura County producers are already subject to extensive federal and state environmental regulations affecting all aspects of their operations. They are regulated by over two dozen federal, state, and local agencies.¹⁰ Legislation enacted in 2014 (SB 4, Pavley/Chapter 313, 2014) established a comprehensive statewide regulatory and permitting system with respect to well stimulation, including hydraulic fracturing, by imposing among the most stringent transparency, reporting, and monitoring requirements in the nation for wells subject to WSTs.¹¹

¹⁰ Key federal agencies include: U.S. Environmental Protection Agency; U.S. Department of the Interior’s Bureau of Land Management, and the Fish and Wildlife Service; and the U.S. Department of Transportation’s Pipeline and Hazardous Materials Safety Administration and Federal Motor Carrier Safety Administration.

Key state agencies include: Department of Conservation, Geologic Energy Management Division (CalGEM); State Water Resources Control Board; Regional Water Quality Control Boards; California Air Resources Board; Regional Air Quality Management Districts or Air Pollution Control Districts; Department of Toxic Substances Control; Department of Fish and Wildlife; Office of Spill Prevention and Response; Office of Emergency Services; California Energy Commission; California Public Utilities Commission; California State Lands Commission; California Coastal Commission; Department of Industrial Relations, Division of Occupational Safety and Health (Cal/OSHA); State Fire Marshal; and State Highway Patrol. In addition, oil & gas producers must obtain encroachment permits from the U.S. Army Corps of Engineers, California Department of Transportation and California Department of Water Resources depending on the location of activities.

¹¹ SB 4 required the State of California to adopt specific regulations relating to the permitting, disclosure and monitoring of well stimulation, and the composition of well stimulation fluids (final regulations took effect on July 1, 2015), and to prepare comprehensive reports on well stimulation. Operators are now required to obtain a permit from Geologic Energy Management Division (CalGEM) for each WST. The application must include information on: well location, type, and depth; the anticipated water source, volume, and disposal method; a spill contingency; fluid ingredients used; the fracture design; and California Environmental Quality Act review (for which CalGEM completed an Environmental Impact Report in 2015). CALGEM is required to conduct spot-checks of wells for consistency with application; State Water Resources Control Board or appropriate regional board must develop and implement ground water monitoring; California Air Resources Board must develop air monitoring criteria; and the California Department of Toxic Substances Control must review the storage and management of WSTs.

Impacts. This provision creates an additional layer of local review that is inconsistent with state law. It would increase uncertainty, prolong timelines and add expense to projects otherwise meeting all existing federal and state criteria. It is not possible to model the impacts of this provision given uncertainties over what the language would entail. However, the impact could be substantial since hydraulic fracturing was used in the past to complete wells in several fields in Ventura County, and many wells currently in operation utilize improved or enhanced oil recovery including water flooding or steam injection. Mineral owners would also need to be able to apply WSTs to access and produce their undeveloped reserves in several types of fields.

Conclusion

Any one of the provisions included in the GP could have potentially substantial impacts on the O&G production industry. The combined impacts of all the provisions would likely be major. Together, they would make future investment in O&G resources much less attractive by narrowing investment opportunities, lengthening timelines for permitting, imposing major increases in investment and production costs, and reducing expected returns on new investments relative to other oil-producing regions. They would also deprive mineral owners of reasonable access to their properties, causing a substantial loss of value. The reduction in investment will translate into a major decline in the O&G industry, potentially eliminating a substantial portion of the 2,760 jobs, \$56 million in state taxes, and \$34 million in local taxes it is projected to contribute annually to Ventura County within the next decade.

Will O&G losses be replaced by growth in green industries? Proponents of policies aimed at curtailing oil and gas production contend that the jobs lost will be replaced by an expansion in green jobs as the state and local governments mandate increasing reliance on renewable energy. Continued diversification of the state and County's energy portfolio in a manner that retains traditional energy would preserve energy affordability and reliability, as well as expanded employment opportunities. However, recent electricity price increases and power outages have demonstrated that reliance solely on electricity from renewable sources would jeopardize affordability and reliability. In addition, green jobs will not replace traditional energy production jobs in terms of either quality or quantity. Our detailed analysis of green jobs in Los Angeles found that they pay, on average, 42 percent less than in the oil and gas industry, with significant pay differentials existing across a range of occupations.¹²

Moreover, green jobs, as defined by federal and state government agencies, include many workers in traditional manufacturing, construction, retail, transportation, and service businesses that have been reclassified as "green" because they now utilize lower-emission products or technologies. The fate of these reclassified jobs remains principally tied to general economic conditions, as opposed to specific advances in such technologies – conditions that would worsen if the County's General Plan were to have an adverse impact on O&G production and jobs.

In theory, blue-collar workers forced out of oil and gas production as a result of the updated General Plan's O&G related provisions could find work in subsidized green manufacturing jobs. In reality, however, there is no evidence that such an increase in manufacturing would occur. In fact, the

¹² "Would Green Jobs Offset Oil Industry Job Losses Due to an Oil and Gas Production Ban?" Capitol Matrix Consulting. June 2019.

manufacturing sector in Ventura County, as in all of California, has been losing jobs for most of the past three decades due to the state's high costs, taxes and constantly changing regulatory requirements.

Given these factors, it is unlikely that growth in green jobs would replace either the quantity or quality of oil and gas industry jobs. Instead, a phase-out in oil and gas production would have a negative impact on career opportunities for all industrial workers, particularly those without a college degree.

Calculation of 2019 Crude Average Carbon Intensity Value

Posting: Each year, pursuant to section 95489(b)(3) of the Low Carbon Fuel Standard (LCFS) Regulation,¹ CARB posts the Annual Crude Average carbon intensity calculation at the CARB-LCFS website for public comment. Written comments shall be accepted for 15 calendar days following the date on which the analysis was posted. Only comments related to potential factual or methodological errors in the posted Annual Crude Average carbon intensity value may be considered. CARB will evaluate the comments received, and may request in writing additional information or clarification from the commenters. Commenters shall have 10 days to respond to these requests. No comments were submitted during the public comment period, and CARB is posting the final Annual Crude Average carbon intensity value.

Calculation of 2017, 2018 and 2019 Annual Crude Average Carbon Intensity Values: Table 1 below shows California crude volumes and Annual Crude Average carbon intensity values for 2017, 2018 and 2019.² Table 2 shows the breakdown of the sources of crude oil supplied to California refineries during 2019 as well as the carbon intensity values assigned to these crude sources.³ All crude oil produced in and offshore of California during 2019 was assumed to be refined in California. The volume contributions for California produced crudes are based on oil production data obtained from the California Department of Conservation.⁴ The volume contributions for California federal offshore crudes are based on oil production data obtained from the Bureau of Safety and Environmental Enforcement.⁵ The volume contributions of imported crudes are based on oil supply data submitted by refineries as part of annual LCFS reporting. The annual crude average carbon intensity values are a volume-weighted average of the carbon intensities for the crudes supplied in a given year.

Table 1: Crude Volumes and Annual Crude Average Carbon Intensity Values

| Year | 2017 | 2018 | 2019 |
|----------------------------|-------------|-------------|-------------|
| CI (gCO ₂ e/MJ) | 11.93 | 12.35 | 12.52 |
| Volume (bbl) | 621,246,732 | 624,127,435 | 584,313,143 |

¹ The LCFS regulation is published at California Code of Regulations (CCR), title 17, sections 95480-95503. Subsequent section references are to CCR title 17.

² Carbon intensity values and volumes for 2017 and 2018 are from [Calculation of 2017 Crude Average Carbon Intensity Value](#) and [Calculation of 2018 Crude Average Carbon Intensity Value](#)

³ Crude carbon intensity values are from Table 9 of the LCFS regulation [Low Carbon Fuels Standard](#). These carbon intensity values are based on oil field data from the year 2015.

⁴ California Department of Conservation, [2019 California Oil and Gas Well Monthly Production](#) (accessed May 11, 2020).

⁵ Bureau of Safety and Environmental Enforcement website [BSEE Pacific Production](#) (accessed May 11, 2020).

Calculation of California Baseline Crude Average Carbon Intensity:

$CI_{BaselineCrudeAve}$ is the California Baseline Crude Average carbon intensity value, in gCO₂e/MJ, attributed to the production and transport of the crude oil supplied as petroleum feedstock to California refineries during the baseline calendar year, 2010, and is calculated by the following formula for the 2019 compliance period:

$$CI_{BaselineCrudeAve} = \frac{[11.98 \times 621,246,732 + 11.78 \times 624,127,435 + 11.78 \times 584,313,143]}{[621,246,732 + 624,127,435 + 584,313,143]}$$

$$CI_{BaselineCrudeAve} = 11.85$$

Calculation of Three-Year California Crude Average Carbon Intensity:

$CI_{2019CrudeAve}$ is the Three-year California Crude Average carbon intensity value, in gCO₂e/MJ, attributed to the production and transport of the crude oil supplied as petroleum feedstock to California refineries during the most recent three calendar years (2017, 2018 and 2019), and is calculated by the following formula:

$$CI_{2019CrudeAve} = \frac{[11.93 \times 621,246,732 + 12.35 \times 624,127,435 + 12.52 \times 584,313,143]}{[621,246,732 + 624,127,435 + 584,313,143]}$$

$$CI_{2019CrudeAve} = 12.26$$

Summary: The Three-year California Crude Average carbon intensity of 12.26 gCO₂e/MJ is greater than the California Baseline Crude Average carbon intensity of 11.85 gCO₂e/MJ plus 0.10 gCO₂e/MJ. Therefore, pursuant to sections 95489(a) and (b) of the LCFS regulation, incremental deficits of $0.41 \times E^{XD} \times C$ for CARBOB or diesel will be added to each affected regulated party's compliance obligation for the annual compliance period of 2021, where E^{XD} is the amount of fuel energy, in MJ, from CARBOB or diesel, as defined in section 95489(a), and $C = 1.0 \times 10^{-6} \frac{MT}{g CO_2 e}$.

Table 2: 2019 Refinery Crude Supply

| Country/State | Crude Name | CI (g/MJ) | 2019 Volume (bbl) |
|----------------------|--------------------------|------------------|--------------------------|
| | Annual Crude Average CI | 12.52 | 584,313,143 |
| Angola | Clov | 7.31 | 3,918 |
| | Dalia | 8.90 | 904,908 |
| | Gimboa | 8.86 | 6,974 |
| | Greater Plutonio | 8.72 | 681 |
| | Nemba | 9.08 | 945,960 |
| | Pazflor | 8.02 | 4,822,092 |
| Argentina | Escalante | 10.15 | 3,669,247 |
| Brazil | Atlanta | 11.78 | 547,445 |
| | Bijupira Salema | 7.18 | 271,972 |
| | Iracema (Cernambi) | 5.54 | 8,180,807 |
| | Lula | 6.24 | 6,193,072 |
| | Peregrino | 4.16 | 616,364 |
| | Sapinhua | 6.00 | 12,240,467 |
| Canada | Access Western Blend | 15.15 | 3,518,916 |
| | Burnaby Blend | 11.78 | 159,680 |
| | Christina Dilbit Blend | 12.71 | 636,375 |
| | Cold Lake | 17.87 | 197,964 |
| | Fort Hills | 11.78 | 2,218,325 |
| | Kearl Lake | 12.89 | 1,937,724 |
| | Mixed Sweet | 8.11 | 149,184 |
| | Peace River Sour | 8.11 | 102,242 |
| | Premium Albion Synthetic | 29.49 | 164,165 |
| | Surmont Heavy Blend | 22.48 | 374,449 |
| | Syncrude Synthetic | 31.62 | 165,594 |
| | Synthetic Sweet Blend | 29.36 | 670,978 |
| | Western Canadian Select | 19.04 | 56,885 |
| Colombia | Castilla | 10.55 | 3,007,404 |
| | Chaza | 11.78 | 1,070,021 |
| | Mares Blend | 11.78 | 607,005 |
| | South Blend | 9.25 | 750,952 |
| | Vasconia | 9.62 | 26,464,151 |
| Ecuador | Napo | 8.31 | 19,911,014 |
| | Oriente | 10.07 | 43,548,568 |
| Equatorial Guinea | Zafiro | 20.56 | 2,074,687 |
| Ghana | Jubilee | 11.78 | 902,458 |
| | Sankofa | 11.78 | 199,492 |
| | Ten Blend | 8.08 | 3,421,587 |

| Country/State | Crude Name | CI (g/MJ) | 2019 Volume (bbl) |
|-----------------|------------------------------------|-----------|-------------------|
| Iraq | Basra Light | 13.45 | 54,931,811 |
| | Basra Heavy | 10.69 | 1,832,776 |
| Kuwait | Kuwait | 10.56 | 8,507,713 |
| Mexico | Maya | 7.85 | 12,256,766 |
| Nigeria | Agbami | 12.04 | 2,568,360 |
| | Antan | 21.98 | 979,892 |
| | Amenam | 10.65 | 1,687,404 |
| | Bonga | 5.06 | 7,602,026 |
| | Erha | 10.91 | 2,424,978 |
| | Forcados | 8.97 | 3,050,214 |
| | Qua Iboe | 11.45 | 907,356 |
| Oman | Oman | 13.32 | 7,275 |
| Peru | Pirana | 8.43 | 175,780 |
| | RPS (Residual Peruano de la Selva) | 11.78 | 90,635 |
| Russia | ESPO | 11.55 | 727,720 |
| | Sokol | 6.94 | 5,224,223 |
| Saudi Arabia | Arab Extra Light | 9.41 | 20,729,323 |
| | Arab Light | 9.23 | 58,226,178 |
| | Arab Medium | 8.72 | 9,228,711 |
| Trinidad | Molo | 11.78 | 2,082,311 |
| UAE | Murban | 10.01 | 1,025,936 |
| Venezuela | Hamaca DCO | 10.02 | 772,920 |
| US Alaska | Alaska North Slope | 15.91 | 75,345,560 |
| US New Mexico | Four Corners | 11.11 | 1,146,069 |
| US North Dakota | North Dakota Sweet | 9.73 | 328,964 |
| US Texas | West Texas Intermediate | 11.93 | 1,420,258 |
| US Utah | Covenant | 4.43 | 82,426 |
| | Utah Sweet | 6.92 | 1,770 |
| US California* | Aliso Canyon | 4.94 | 55,635 |
| | Ant Hill | 20.81 | 17,715 |
| | Antelope Hills | 2.84 | 88,313 |
| | Antelope Hills, North | 24.75 | 232,862 |
| | Arroyo Grande | 31.11 | 457,737 |
| | Asphalto | 8.01 | 162,643 |
| | Bandini | 3.09 | 9,406 |
| | Bardsdale | 3.47 | 140,884 |
| | Barham Ranch | 4.15 | 74,657 |
| | Beer Nose | 3.98 | 9,790 |
| | Belgian Anticline | 5.01 | 39,256 |

| Country/State | Crude Name | CI (g/MJ) | 2019 Volume (bbl) |
|---------------|-------------------|-----------|-------------------|
| | Bellevue | 5.95 | 29,764 |
| | Bellevue, West | 6.60 | 49,495 |
| | Belmont, Offshore | 5.12 | 425,950 |
| | Belridge, North | 4.11 | 1,677,608 |
| | Belridge, South | 17.09 | 19,696,894 |
| | Beverly Hills | 5.41 | 386,445 |
| | Big Mountain | 4.65 | 13,588 |
| | Blackwells Corner | 3.07 | 14,921 |
| | Brea-Olinda | 3.59 | 1,019,426 |
| | Brentwood | 11.78 | 127,191 |
| | Buena Vista | 7.44 | 969,666 |
| | Burrel | 29.43 | 14,068 |
| | Cabrillo | 4.14 | 14,643 |
| | Cal Canal Gas | 11.78 | 19,084 |
| | Canal | 4.40 | 9,645 |
| | Canfield Ranch | 4.53 | 90,992 |
| | Carneros Creek | 4.06 | 12,203 |
| | Cascade | 3.00 | 92,064 |
| | Casmalia | 10.26 | 90,160 |
| | Castaic Hills | 2.68 | 6,435 |
| | Cat Canyon | 7.83 | 1,165,356 |
| | Cheviot Hills | 3.49 | 43,890 |
| | Chico-Martinez | 48.13 | 85,356 |
| | Cienaga Canyon | 5.78 | 12,103 |
| | Coalinga | 25.81 | 5,837,627 |
| | Coles Levee, N | 4.09 | 60,738 |
| | Coles Levee, S | 5.87 | 25,916 |
| | Comanche | 5.03 | 11,490 |
| | Coyote, East | 5.96 | 176,091 |
| | Cuyama, South | 14.70 | 174,690 |
| | Cymric | 15.69 | 12,904,635 |
| | Deer Creek | 11.51 | 34,710 |
| | Del Valle | 5.78 | 24,258 |
| | Devils Den | 7.51 | 8,511 |
| | Dominguez | 3.57 | 5,818 |
| | Edison | 14.53 | 670,084 |
| | El Segundo | 4.38 | 20,532 |
| | Elk Hills | 8.02 | 7,802,455 |
| | Fruitvale | 3.75 | 422,068 |
| | Greeley | 7.91 | 132,616 |

| Country/State | Crude Name | CI (g/MJ) | 2019 Volume (bbl) |
|---------------|-----------------------|-----------|-------------------|
| | Hasley Canyon | 2.25 | 24,339 |
| | Helm | 3.99 | 44,991 |
| | Holser | 3.80 | 12,762 |
| | Honor Rancho | 3.43 | 15,599 |
| | Huntington Beach | 6.62 | 1,813,141 |
| | Hyperion | 1.90 | 11,163 |
| | Inglewood | 10.06 | 1,875,880 |
| | Jacalitos | 2.72 | 85,790 |
| | Jasmin | 16.59 | 130,462 |
| | Kern Bluff | 12.54 | 32,808 |
| | Kern Front | 35.68 | 3,282,953 |
| | Kern River | 15.09 | 17,748,828 |
| | Kettleman Middle Dome | 3.93 | 10,731 |
| | Kettleman North Dome | 3.42 | 114,355 |
| | Landslide | 12.53 | 36,536 |
| | Las Cienegas | 4.96 | 137,015 |
| | Livermore | 2.66 | 7,266 |
| | Lompoc | 28.45 | 235,540 |
| | Long Beach | 5.48 | 1,224,456 |
| | Long Beach Airport | 4.92 | 7,222 |
| | Los Angeles Downtown | 5.89 | 34,434 |
| | Lost Hills | 12.99 | 9,057,838 |
| | Lost Hills, Northwest | 5.36 | 14,284 |
| | Lynch Canyon | 23.10 | 194,088 |
| | Mahala | 4.99 | 8,181 |
| | McCool Ranch | 9.59 | 876 |
| | McDonald Anticline | 4.33 | 41,908 |
| | McKittrick | 25.31 | 3,309,294 |
| | Midway-Sunset | 29.33 | 19,644,832 |
| | Montalvo, West | 2.65 | 152,989 |
| | Montebello | 17.03 | 331,036 |
| | Monument Junction | 4.95 | 73,570 |
| | Mount Poso | 3.71 | 1,219,613 |
| | Mountain View | 3.97 | 63,595 |
| | Newhall-Potrero | 3.66 | 36,885 |
| | Newport, West | 5.21 | 69,391 |
| | Oak Canyon | 4.04 | 8,841 |
| | Oak Park | 3.01 | 8,164 |
| | Oakridge | 3.46 | 84,428 |
| | Oat Mountain | 3.17 | 46,649 |

| Country/State | Crude Name | CI (g/MJ) | 2019 Volume (bbl) |
|---------------|--------------------|-----------|-------------------|
| | Ojai | 4.94 | 234,153 |
| | Olive | 1.82 | 45,991 |
| | Orcutt | 11.76 | 869,960 |
| | Oxnard | 5.39 | 195,707 |
| | Paloma | 4.88 | 12,772 |
| | Placerita | 32.78 | 508,182 |
| | Playa Del Rey | 6.87 | 50,623 |
| | Pleito | 2.09 | 465,048 |
| | Poso Creek | 21.96 | 5,301,097 |
| | Pyramid Hills | 3.36 | 44,298 |
| | Railroad Gap | 7.08 | 98,224 |
| | Raisin City | 9.13 | 4,131 |
| | Ramona | 4.47 | 27,363 |
| | Richfield | 4.75 | 165,826 |
| | Rincon | 4.88 | 246,691 |
| | Rio Bravo | 6.98 | 202,083 |
| | Rio Viejo | 2.74 | 133,522 |
| | Riverdale | 3.80 | 21,697 |
| | Rose | 2.91 | 192,140 |
| | Rosecrans | 5.76 | 217,318 |
| | Rosecrans, South | 3.54 | 6,195 |
| | Rosedale | 2.35 | 11,857 |
| | Rosedale Ranch | 8.32 | 98,191 |
| | Round Mountain | 24.04 | 2,583,449 |
| | Russell Ranch | 8.58 | 44,581 |
| | Salt Lake | 3.18 | 35,709 |
| | Salt Lake, South | 6.34 | 4,011 |
| | San Ardo | 26.42 | 8,120,413 |
| | San Emidio Nose | 11.78 | 56,922 |
| | San Miguelito | 5.25 | 351,770 |
| | San Vicente | 3.22 | 162,940 |
| | Sansinena | 3.21 | 224,686 |
| | Santa Clara Avenue | 3.53 | 29,551 |
| | Santa Fe Springs | 12.53 | 586,534 |
| | Santa Maria Valley | 4.80 | 86,525 |
| | Santa Susana | 5.29 | 3,729 |
| | Sargent | 4.00 | 19,040 |
| | Saticoy | 3.68 | 33,297 |
| | Sawtelle | 2.56 | 38,354 |
| | Seal Beach | 5.19 | 381,607 |

| Country/State | Crude Name | CI (g/MJ) | 2019 Volume (bbl) |
|----------------|--------------------|-----------|-------------------|
| | Semitropic | 4.30 | 21,924 |
| | Sespe | 3.98 | 336,170 |
| | Shafter, North | 3.32 | 407,252 |
| | Shiells Canyon | 5.07 | 45,213 |
| | South Mountain | 3.58 | 383,014 |
| | Stockdale | 2.18 | 91,673 |
| | Tapia | 6.92 | 12,098 |
| | Tapo Canyon, South | 3.08 | 5,192 |
| | Tejon | 13.77 | 208,145 |
| | Tejon Hills | 9.39 | 7,281 |
| | Tejon, North | 5.63 | 26,599 |
| | Temescal | 3.40 | 41,011 |
| | Ten Section | 7.50 | 63,082 |
| | Timber Canyon | 4.74 | 32,557 |
| | Torrance | 3.99 | 344,414 |
| | Torrey Canyon | 3.52 | 61,225 |
| | Union Avenue | 5.58 | 8,203 |
| | Vallecitos | 4.53 | 12,410 |
| | Ventura | 4.54 | 3,860,285 |
| | Wayside Canyon | 2.36 | 2,301 |
| | West Mountain | 3.53 | 7,926 |
| | Wheeler Ridge | 2.80 | 57,135 |
| | White Wolf | 1.92 | 10,065 |
| | Whittier | 3.71 | 99,993 |
| | Wilmington | 8.31 | 10,326,945 |
| | Yowlumne | 13.90 | 324,343 |
| | Zaca | 9.53 | 151,598 |
| US Federal OCS | Beta | 1.59 | 1,655,673 |
| | Carpinteria | 3.28 | 264,883 |
| | Dos Cuadras | 4.57 | 976,747 |
| | Hueneme | 4.67 | 62,327 |
| | Point Pedernales | 8.26 | 1,024,156 |
| | Santa Clara | 2.46 | 465,220 |

*CI values from Table 9 of the LCFS regulation are based on oil field operational data from the year 2015

CARB LCFS - Calculation of 2019 Crude Average Carbon Intensity Value

Table 2: 2019 Refinery Crude Supply (Ventura County)

| Country/State | Crude Name | CI (g/MJ) | 2019 Volume (bbl) | CI x Volume |
|---------------|--------------------|-----------|-------------------|-------------|
| | Bardsdale | 3.47 | 140,884 | 488,867 |
| | Big Mountain | 4.65 | 13,588 | 63,184 |
| | Holser | 3.80 | 12,762 | 48,496 |
| | Montalvo, West | 2.65 | 152,989 | 405,421 |
| | Oak Park | 3.01 | 8,164 | 24,574 |
| | Oakridge | 3.46 | 84,428 | 292,121 |
| | Ojai | 4.94 | 234,153 | 1,156,716 |
| | Oxnard | 5.39 | 195,707 | 1,054,861 |
| | Ramona | 4.47 | 27,363 | 122,313 |
| | Rincon | 4.88 | 246,691 | 1,203,852 |
| | San Miguelito | 5.25 | 351,770 | 1,846,793 |
| | Santa Clara Avenue | 3.53 | 29,551 | 104,315 |
| | Santa Susana | 5.29 | 3,729 | 19,726 |
| | Saticoy | 3.68 | 33,297 | 122,533 |
| | Sespe | 3.98 | 336,170 | 1,337,957 |
| | Shiells Canyon | 5.07 | 45,213 | 229,230 |
| | South Mountain | 3.58 | 383,014 | 1,371,190 |
| | Tapo Canyon, South | 3.08 | 5,192 | 15,991 |
| | Temescal | 3.40 | 41,011 | 139,437 |
| | Timber Canyon | 4.74 | 32,557 | 154,320 |
| | Torrey Canyon | 3.52 | 61,225 | 215,512 |
| | Ventura | 4.54 | 3,860,285 | 17,525,694 |
| | West Mountain | 3.53 | 7,926 | 27,979 |

6,307,669

27,971,081

Weighted Ave CI

4.43

$$\text{Excess GHG (MT)} = (\text{California CI} \left(\frac{\text{gCO}_2}{\text{MJ}} \right) - \text{Ventura County CI} \left(\frac{\text{gCO}_2}{\text{MJ}} \right)) \times 6,012 \frac{\text{MJ}}{\text{bbl}} \times 1/1000000 (\text{MT/g}) \times \text{Reduced Crude Production (bbl)}$$

EXAMPLE CALCULATION & ASSOCIATED FACTORS ASSUMED:

2019 Carbon Intensity (CI) values published by the California Air Resources Board pursuant to the LCFS Crude Oil Life Cycle Assessment

The life cycle assessment includes direct emissions associated with producing, transporting, and using the fuels

| | |
|---------------|---|
| 12.52 | gCO ₂ /MJ - Weighted average carbon intensity (CI) of crude consumed in California (gram CO ₂ e per megajoule) |
| 4.43 | gCO ₂ /MJ - Weighted average carbon intensity (CI) of crude consumed produced in Ventura County (gram CO ₂ e per megajoule) |
| 8.09 | gCO ₂ /MJ difference (impact of imported oil) |
| 6,012 | MJ/bbl - average MJ of energy per barrel of crude oil (from U.S. Energy Information Administration) |
| 48,610 | gCO ₂ /bbl of crude oil difference (impact of imported oil) |
| 1,000,000 | g/MT |
| 0.048610 | MT CO ₂ /bbl difference (impact of imported oil) |
| 703,000 | bbl of crude oil lost due to new General Plan policies |
| 34,173 | excess MT CO ₂ created by loss of crude produced in Ventura County |

Reduction in Oil Production Due to Proposed Provisions of the 2040 General Plan Directly Affecting O&G Industry:

(Source: Capitol Matrix Consulting "Impact of Ventura County's General Plan Update on the Oil and Gas Production Industry" 8/24/20)

| Reduction in Crude Oil Production (barrels) | | | |
|---|----------------|------------------|------------------|
| | 2021 | 2026 | 2031 |
| COS 7.2 - 1,500 & 2,500 foot setback: | 49,000 | 354,000 | 505,000 |
| COS 7.4 - 100% renewable sources for new O&G development: | 240,000 | 1,730,000 | 2,500,000 |
| COS 7.7 - Prohibition on trucking crude and produced water: | 54,000 | 390,000 | 560,000 |
| COS 7.8 - Restrict flaring of natural gas on new wells: | 200,000 | 1,440,000 | 2,080,000 |
| Implementation Program M: Oil and Gas Tax: | 160,000 | 1,140,000 | 1,640,000 |
| Total: | 703,000 | 5,054,000 | 7,285,000 |

| Increased GHG Emissions Due to Increased Imported Crude Oil (MT CO ₂ e) | | | |
|--|---------------|----------------|----------------|
| | 2021 | 2026 | 2031 |
| COS 7.2 - 1,500 & 2,500 foot setback: | 2,382 | 17,208 | 24,548 |
| COS 7.4 - 100% renewable sources for new O&G development: | 11,666 | 84,096 | 121,526 |
| COS 7.7 - Prohibition on trucking crude and produced water: | 2,625 | 18,958 | 27,222 |
| COS 7.8 - Restrict flaring of natural gas on new wells: | 9,722 | 69,999 | 101,109 |
| Implementation Program M: Oil and Gas Tax: | 7,778 | 55,416 | 79,721 |
| Total: | 34,173 | 245,676 | 354,126 |

Carbon Reduction in Oil Reserves Due to Proposed Provisions of the 2040 General Plan Directly Affecting O&G Industry:

(Source: Carbon)

| | | |
|--|----------------|---------------------------|
| Carbon estimate of undeveloped Ventura County reserves: | 39,088,000 | barrels |
| Potential reduction due to G.P. policies (from Capitol Matrix): | 40% | |
| Estimated Carbon reduction in oil reserves due to G.P. policies: | 15,635,200 | barrels |
| Increased GHG emissions due to reduction of oil reserves: | 760,032 | MT CO ₂ e |
| Annual GHG assuming 75% was produced over the next 50 years: | 11,400 | MT CO ₂ e/year |

EDUCATION

UNIVERSITY OF WINDSOR,

BASc, Chemical Engineering

Windsor, Ontario, Canada
1981

REGISTRATIONS

- Professional Engineer, Chemical Engineering, California (#CH005847)
- South Coast Air Quality Management District Certified Permitting Professional (#B4317)

WORK HISTORY

SESPE CONSULTING, INC.

Vice President

Ventura, CA
Present

WEST COAST ENVIRONMENTAL AND ENGINEERING

Last Position: Vice President

Ventura, CA
1987 – 2009

ESSO RESOURCES CANADA

Last Position: Reservoir & Production Engineer

Calgary, Alberta, Canada
1981 – 1986

Responsible for optimizing oil production from assigned oilfields in western and northern Canada.

EXPERIENCE

35 years of professional experience including 30 years of wide-ranging consulting experience covering all aspects of environmental compliance, assessment and management.

INDUSTRY EXPERIENCE

- Provided consulting services to a wide variety of industries, including:
 - Aggregate mining and processing
 - Ready mixed and asphaltic concrete production
 - Crude oil production and processing
 - Refined oil bulk storage, blending and distribution
 - Scrap metal recycling
 - Metal forging and forming
 - Food processing and agricultural
 - Water purveyors
 - Semiconductor manufacturing
 - Real estate development
 - Power generation
 - Glass production

AIR QUALITY AND GHGs

- Obtained numerous air emission permits (local and federal Title V) from various California air districts including the Ventura County Air Pollution Control District (VCAPCD), South Coast Air Quality Management District (SCAQMD) and San Diego County APCD.
- Performed detailed air emission calculations.
- Used computer modeling to determine expected concentrations at various locations in and around the sources. Calculated resulting impacts including acute health risk, chronic health risk, and cancer risk.
- Evaluated various operational scenarios to identify potential emissions and risk reductions.
- Client representation at hearing boards and variance hearings.
- Evaluation of emission control technologies.
- Prepared greenhouse gas (GHG) emission inventories and conducted GHG certifications to California Climate Action Registry and federal certification standards.

WATER QUALITY

- National Pollutant Discharge Elimination System (NPDES) and Waste Discharge Requirements (WDR) permitting, monitoring, reporting and compliance support including evaluation of technical issues such as ion imbalance toxicity and mixing zones.
- Discharge treatment studies for various manufacturing facilities, in particular ion exchange pilot testing for removal of toxic metals to meet CTR/NPDES permit limits for inland surface waters.
- Industrial sewer discharge support including preparing baseline monitoring reports, obtaining local sewer permits, Notice of Violation (NOV) resolution and treatment system evaluations.
- Preparation of Storm Water Pollution Prevention Plans (SWPPPs) for a variety of industrial and manufacturing facilities.

SITE ASSESSMENT AND ENVIRONMENTAL AUDITS

- Completed environmental compliance audits for numerous manufacturing operations including construction materials, wastepaper recycling, circuit board manufacturing, electronics equipment manufacturing, and bottled water production.
- Conducted pre-acquisition due diligence compliance audits for aggregate mining, ready mixed and asphaltic concrete production facilities.
- Provided project management for more than 1,000 Phase I Site Assessment projects including agricultural parcels, heavy and light manufacturing sites, oil and gas production facilities, and commercial and residential lands.

HAZARDOUS MATERIALS

- Hazard Communication Program development and implementation including conducting hazardous material audits and creating MSDS tracking and reporting systems.
- Hazardous Material Business Plan preparation and Tier II reporting.
- Prepared and/or certified Spill Prevention Control and Countermeasure (SPCC)
- Prepared Facility Response Plans for large oil blending and packaging facilities.

- Prepared Toxic Release Inventory (TRI) reports for a variety of manufacturing facilities and reported emissions using Form R/Form A.
- Risk Management Plan (RMP) preparation for facilities storing anhydrous ammonia and chlorine gas.
- Facility design support for California Fire Code (CFC) and California Building Code (CBC) requirements.

HAZARDOUS WASTE

- Hazardous waste compliance support.
- Waste Minimization (SB14) Plan and Report preparation.
- California Tiered Permitting support including preparation of necessary reporting forms, developing closure cost estimates, and certifying hazardous waste treatment tanks and containment areas.

LAND USE PLANNING AND PERMITTING

- Conditional Use Permitting (CUP) support
- Managing the preparation of technical studies in support of environmental impact reports
- Permitting of new crude oil wells and production facilities

J. Matthew Carroll
Assistant County Executive Officer

Paul Derse
Assistant County Executive Officer/
Chief Financial Officer

Catherine Rodriguez
Assistant County Executive Officer/
Labor Relations & Strategic Development

Kelly Shirk
Director Human Resources

December 17, 2013

Board of Supervisors
County of Ventura
800 South Victoria Avenue
Ventura, CA 93009

SUBJECT: **Receive Presentation and Report Back in Response to May 21, 2013 Board Direction Regarding the Hydraulic Fracturing of Oil and Gas Wells in Ventura County; and Direct Revisions be Made to the Conditional Use Permit Application/Questionnaire for Oil & Gas Exploration and Production Permits**

RECOMMENDATIONS:

It is recommended the Board:

1. Receive and file a presentation by County staff responding to the direction provided by the Board at its May 21, 2013 meeting regarding hydraulic fracturing of oil and gas wells in Ventura County.
2. Direct the Resource Management Agency to revise the Conditional Use Permit Application/Questionnaire for Oil and Gas Exploration and Production to include the following questions:
 - 1) Will hydraulic fracturing or acidization well stimulation treatments be performed? If yes,
 - 2) What hazardous materials will be used?
 - 3) What water supply will be used?
 - 4) Where will the liquid wastes be disposed?

FISCAL/MANDATES IMPACT:

| | |
|--------------------|-----|
| Mandatory: | No |
| Source of Funding: | N/A |

Funding Match: None
Impact on other Departments: None

DISCUSSION:

At your May 21, 2013 meeting, the Board of Supervisors directed the County Executive Officer, County Counsel, and the Resource Management Agency return to the Board with a number of items regarding the hydraulic fracturing and acidization of oil and gas wells in unincorporated Ventura County. The specific items were recommendations for a revision to the Conditional Use Permit Application Form/Questionnaire and legal analysis of: 1) the options available to address antiquated oil & gas permits, 2) potential for restrictions on the use of fresh water in oilfield operations, and 3) the County's ability to require the use of non- or least-toxic fracking chemicals. Each of these items is addressed below. However, it is important to note that a significant amount of activity took place in Sacramento after May 21, 2013, and it profoundly altered the regulatory and legal environment surrounding hydraulic fracturing, acidization, and other well stimulation treatments. The culmination of this State activity was the passage of Senate Bill 4 (Pavley – Chapter 313 – Statutes 2013) (SB 4). A copy of SB 4 is attached as Exhibit 1.

Before responding specifically to the Board's May 21, 2013 direction, it would be valuable to provide a brief summary of SB 4. Beginning on January 1, 2015, SB 4 requires that a permit from the Division of Oil, Gas and Geothermal Resources (DOGGR) be obtained prior to conducting hydraulic fracturing or other well stimulation treatments. The DOGGR permit application is required to include a significant amount of information, including but not limited to: 1) detailed information about the well location; 2) a description of the fluids to be used; 3) a groundwater monitoring plan; and 4) a water management plan. Moreover, copies of any approved permit must be sent to neighboring property owners and tenants, and water well testing must be provided upon request. Much of this information directly addresses the concerns raised by the Board, and this will be discussed in more detail below. Also, included as Exhibit 2 and Exhibit 3 are the "Senate Bill 4 Implementation Plan" and a "Frequently Asked Questions" document prepared by the Department of Conservation.

Revisions to the CUP Application Form/Questionnaire

On May 21, 2013, the Board of Supervisors directed the Resource Management Agency return to the Board with revisions to the Conditional Use Permit (CUP) application form that would address a number of questions related to hydraulic fracturing as a well stimulation treatment conducted in newly permitted wells located in the county's unincorporated area. It is recommended in the Board letter presented at the May 21, 2013 hearing that four specific questions be included in the application form, as follows:

- 1) Will hydraulic fracturing be performed?

- 2) What hazardous materials will be used?
- 3) What water supply will be used?
- 4) Where will the liquid wastes be disposed?

At the May hearing, the Board further directed that these questions be broadened to include well stimulation by acidization.

On September 20, 2013, Governor Brown signed SB 4, which established a regulatory framework for well stimulation treatment activities, including hydraulic fracturing and acidization. The directives outlined in SB 4 in some manner address all of the issues raised by the Board in its May 21, 2013 action, and it requires DOGGR to have rules and regulations in place by January 1, 2015. In addition, DOGGR is required to work in concert with other entities to complete a scientific study of well stimulation treatments by January 1, 2015. And finally, DOGGR is required to complete an environmental impact report that assesses the environmental impacts of oil and gas well stimulation treatments in the state by July 1, 2015.

SB 4 also includes provisions which address well stimulation treatment activities which might take place between January 1, 2014, when the law goes into effect, and January 1, 2015 when the new DOGGR permitting process is required to be in place. These "interim" provisions (referred to by DOGGR as "emergency regulations") require certain information be provided and actions taken by oil and gas well operators if well stimulation treatment activities are to take place prior to January 1, 2015. The required information and actions largely address the items identified by the Board in May 2013.

DOGGR has announced it will have its emergency regulations in place by January 1, 2014, to address the requirements of SB 4 during this interim period. These emergency regulations are expected to be released after the preparation of this Board letter, on December 13, 2013. Should the emergency regulations be released on that date, a copy will be provided to the Board and posted on the County web page with this Board letter.

The Public Resources Code sections being added by SB 4 are summarized here under the four specific issue areas raised by the Board:

1. Will hydraulic fracturing or acidization be performed?

§3160 (d) (1) "...prior to performing a well stimulation treatment on a well, the operator shall apply for a permit to perform a well stimulation treatment with the supervisor or district deputy."

While the formal permitting process is not required to be in place until January 1, 2015, the law requires that operators notify and provide substantial information to

DOGGR prior to engaging in well stimulation treatment activities between January 1, 2014 and December 31, 2014.

2. What hazardous materials will be used?

§3160 (b) (1) (A) "....The rules and regulations shall include.... full disclosure of the composition and disposition of well stimulation fluids, including, but not limited to, hydraulic fracturing fluids, acid well stimulation fluids, and flowback fluids."

§3160 (b) (2) "Full disclosure of the composition and disposition of well stimulation fluids, including, but not limited to, hydraulic fracturing fluids and acid stimulation treatment fluids, shall, at a minimum, include:

(B) A complete list of the names, Chemical Abstract Service (CAS) numbers, and maximum concentration, in percent by mass, of each and every chemical constituent of the well stimulation treatment fluids used. If a CAS number does not exist for a chemical constituent, the well owner or operator may provide another unique identifier, if available.

(C) The trade name, the supplier, concentration, and a brief description of the intended purpose of each additive contained in the well stimulation treatment fluid."

Beginning January 1, 2014, operators are required to provide all of the above information to DOGGR prior to engaging in well stimulation treatment activities.

3. What water supply will be used?

§3160 (b) (2) "Full disclosure of the composition and disposition of well stimulation fluids, including, but not limited to, hydraulic fracturing fluids and acid stimulation treatment fluids, shall, at a minimum, include:

(D) The total volume of base fluid used during the well stimulation treatment, and the identification of whether the base fluid is water suitable for irrigation or domestic purposes, water not suitable for irrigation or domestic purposes, or a fluid other than water.

§3160 (d) (1) (C) "....The information provided in the well stimulation treatment permit application shall include....A water management plan that shall include:

(i) An estimate of the amount of water to be used in the treatment. Estimates of water that is to be recycled or that could be recycled following the well stimulation treatment may be included.

(ii) The anticipated source of the water to be used in the treatment.

The requirement to prepare a Water Management Plan, including the identification of the source and quality of the water used in the well stimulation treatment process, goes into effect on January 1, 2014.

4. Where will liquid wastes be disposed of?

§3160 (d) (1) (C) “...The information provided in the well stimulation treatment permit application shall include....A water management plan that shall include:

(iii) The disposal method identified for the recovered water in the flowback fluid from the treatment that is not produced water....”

§3160 (b) (2) (E) “...The information provided in the well stimulation treatment permit application shall include....the disposition of all water, including, but not limited to, all water used as base fluid during the well stimulation treatment and recovered from the well following the well stimulation treatment that is not otherwise reported as produced water..... Any repeated reuse of treated or untreated water for well stimulation treatments and well stimulation treatment-related activities shall be identified.”

§3160 (b) (2) (F) “...The information provided in the well stimulation treatment permit application shall include.... the specific composition and disposition of all well stimulation treatment fluids, including waste fluids.....”

The information requirements related to the composition and disposition of well stimulation treatment fluids also become operative on January 1, 2014.

Given the above provisions of State law, it appears that beginning January 1, 2014 all of the information the Board action sought through future CUP applications will be required by DOGGR of all existing and proposed oil wells in Ventura County prior to conducting hydraulic fracturing, acidization, or other well stimulation treatment activities. Since July of this year, DOGGR staff has been providing copies of each “Notice of Intent” filed by oil and gas operators for the drilling or modification of oil and gas wells located in Ventura County to the Resources Management Agency, Planning Division. These Notices have been provided to the County within a day of submittal to DOGGR. County staff has reviewed these notices to ensure that the proposed action is consistent with the conditions of approval of any applicable CUP (there is currently only one CUP which prohibits hydraulic fracturing within its 11 wells). This process provides the Planning Division a timely opportunity to notify DOGGR of activities (such as hydraulic fracturing) that are not authorized by the Conditional Use Permit (CUP) governing the well in question.

However, SB 4 does not require this information be provided to the County or DOGGR as part of an application for a CUP to install new oil wells. Thus, it would be reasonable and appropriate at this time for the County to include these four questions in its Oil and Gas Permit Application Form. Gathering this information as part of the application will not only provide information for public noticing purposes prior to the CUP hearing, but also provide information needed for the County to conduct the required environmental review under the California Environmental Quality Act (CEQA) utilizing the *Water Resources* and *Hazardous Materials/Waste* sections of the County's Initial Study Checklist.

Until DOGGR develops the permitting process and regulations, it is not possible to know for certain what County CUP conditions should contain or address. For example, the County is preempted from adopting its own regulations with respect to well casings and well stimulation treatment fluids, but DOGGR may delineate notice duties for the County that can be implemented through permit conditions. In addition, until DOGGR completes the associated environmental impact report required under SB 4, there will be a question regarding the appropriate environmental review of hydraulic fracturing and acidization well stimulation treatments that might need to be prepared by the County to address proposed discretionary oil and gas projects. Therefore, it may be necessary to re-evaluate the County's CUP application questions in 2015 after the implementation of the new DOGGR permitting process mandated under SB 4.

Finally, the Board may be interested in the current status of oil permitting activities in the County. Since the Board's May 21, 2013 action, three CUP applications for new oil and gas wells have been submitted. This brings to five the number of oil and gas projects, involving a total of 40 wells, currently under review by the Planning Division. Although not yet part of the formal CUP application packet, the Planning Division has asked the applicants to indicate whether or not they intend to utilize hydraulic fracturing stimulation treatments in their operations. All four of the applicants have indicated that their projects do not include hydraulic fracturing well stimulation. However, one of these applicants has indicated that hydraulic fracturing may be considered in the future once the new State regulations are in place. The Planning Division did not initially ask for information related to acidization as there was a lack of clarity at the State as to what level of acidization constituted well stimulation as defined in SB 4. DOGGR has recently released information in its draft regulations which addresses this issue and Planning staff now intends to request the information from these applicants.

Confidential Legal Analysis of Antiquated Permits, Water, and Chemical Toxicity

At the May 21, 2013 meeting, the Board also directed the County Counsel to provide the Board with a confidential legal analysis of three questions regarding the County's ability to regulate oil and gas operations including aspects of hydraulic fracturing and other well stimulation treatments. County Counsel has provided the Board with memoranda addressing these questions which are recommended to remain confidential. The Board's questions are set forth below along with the County Counsel's conclusions regarding each.

1. What options are available to the County to address antiquated oilfield CUPs that do not require discretionary review for new drilling, and/or do not incorporate current ordinance requirements, and/or do not provide time limits?

Conclusion: The County has only a limited ability to address antiquated oilfield permits due to the vested rights doctrine and constitutional takings and due process principles. The County's options to modify antiquated oilfield permits consist of imposing: 1) permit changes that are reasonably related to a permittee's request for modification of an existing permit; 2) limited permit changes based on the establishment by the County of harm, danger or nuisance caused by a permitted activity; 3) limited permit changes based on the establishment by the County of a permittee's significant violations of law or permit conditions; and 4) specific permit changes contemplated by existing conditions in the permit. In addition, a permit could be revoked if its operations constitute a nuisance and imposition of conditions to eliminate the nuisance is not feasible.

2. May the County restrict the use of fresh water or require the use of non-fresh water when discretionary permits are issued for oil and gas well drilling or operation?

Conclusion: No. Restricting the use of fresh water or requiring the use of non-fresh water, to the extent it was applied to an operator's well stimulation treatments such as hydraulic fracturing, would likely conflict with extensive State law providing DOGGR, together with other State agencies including the State Water Resources Control Board, exclusive jurisdiction over the down-hole/subsurface aspects of oil and gas operations and over the surface and subsurface aspects of the composition of well stimulation treatment fluids under SB 4.

3. May the County require the use of non-toxic or least-toxic hydraulic fracturing chemicals?

Conclusion: No. Because of State law preemption resulting from existing State law and SB 4, the County is precluded from requiring the use of non-toxic and least-toxic well stimulation treatment fluids, including hydraulic fracturing fluids, since well stimulation treatments and the fluids used for the treatments are within the exclusive jurisdiction of DOGGR and other State agencies.

Conclusion/Summary

Since the Board action on May 21, 2013, directing staff to return with the analysis and information in this Board letter, the legislature passed and Governor Brown signed SB 4, which establishes a comprehensive regulatory and permitting framework for well stimulation activities. These regulations, being developed by DOGGR, will be among the most protective in the nation. The requirements within SB 4 fundamentally address the technical issues raised by the Board in May. They also address the notification and monitoring issues previously discussed by the Board and raised by county residents.

The legal analysis provided by County Counsel indicates that the County is largely pre-empted from actively regulating well stimulation treatment activities at both new and existing wells. However, the County is required under CEQA to assess and address the potential environmental impacts from such activities requiring a discretionary County

approval at proposed new well sites. Therefore, it is recommended that the Board direct the Resource Management Agency to add the following four questions to the CUP application questionnaire for proposed new Oil and Gas Exploration and Production permits:

- 1) Will hydraulic fracturing or acidization well stimulation treatments be performed?
- 2) What hazardous materials will be used?
- 3) What water supply will be used?
- 4) Where will the liquid wastes be disposed?

This item has been reviewed by the County Executive Office, County Counsel, and the Resource Management Agency. If you have questions concerning this item, please contact Sue Hughes, Deputy Executive Officer, at (805) 654-3836 or Chris Stephens, Director, Resource Management Agency at (805) 654-2661.

Sincerely,



Sue Hughes
Deputy Executive Officer



Chris Stephens
Resource Management Agency Director



Leroy Smith
County Counsel

- Exhibit 1: SB 4 (Pavley – Chapter 313 – Statutes 2013)
Exhibit 2: Senate Bill 4 Implementation Plan
Exhibit 3: Frequently Asked Questions



Writer's Email:
nmauire@fcoplaw.com

Reply to: Ventura Office

September 9, 2019

Via Email

Board of Supervisors
County of Ventura
800 South Victoria Avenue
Ventura, CA 93009
Email: clerkoftheboard@ventura.org

Re: *Item 35 of September 10, 2019 Agenda: Report Back and Seek Board Direction Regarding Potential Amendments to the County's Zoning Ordinances Regarding Oil and Gas Development; All Supervisorial Districts*

Dear Chair Bennett, Vice Chair Long, and Supervisors of the Board:

On behalf of Carbon California Company, LLC, we provide the following comments in response to the September 10, 2019, Board letter from County Counsel that purports to grant leeway to the Board of Supervisors to disregard vested mineral extraction rights. As the County Counsel's office itself repeatedly confirmed in prior analyses of the identical legal issues raised in the Board letter, so-called "antiquated" permits for oil and gas production vest rights to all existing and future mineral extraction authorized by the permit, subject only to the conditions imposed by those permits and to the narrow exceptions discussed in the 2014 memorandum attached as Exhibit 2 to the Board letter.

The Board Letter Intentionally Mischaracterizes County Counsel's 2014 Memorandum:
As the Board letter recognizes, County Counsel already addressed the issue of vested rights in the oil and gas permitting context in 2013 and 2014. A December 2013, Board letter regarding hydraulic fracturing determined, "The County has only a limited ability to address antiquated

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oilfield permits due to the vested rights doctrine and constitutional takings and due process principles.” That complete letter, approved by County Counsel, is attached hereto since it has not been provided to the current Board in connection with this item.

Additionally, the 2014 memorandum from County Counsel that was disclosed to the current Board conclusively determined:

“The County of Ventura’s (‘County’) ability to impose new conditions on antiquated oilfield permits is very limited. Because of the vested rights doctrine and constitutional protections afforded these permits, the County can impose new, narrowly tailored conditions on these permits only when a compelling public necessity, such as danger, harm or public nuisance, or significant violations exist, and not through an ordinary exercise of the police power for the general welfare.”

(Emphasis added.) The 2014 memorandum, citing the California Supreme Court, noted, “Once a landowner has secured a vested right the government may not, by virtue of a change in the zoning laws, prohibit construction authorized by the permit upon which he relied.”

The 2014 memorandum further discussed, in some detail at pages 2-4 and again with citation to well-established law on the matter, why the so-called antiquated oilfield permits give rise to vested rights. Such rights arise when “a property owner has performed substantial work and incurred substantial liabilities in good faith reliance upon a permit issued by the government.” It is disingenuous, at best, to assert in the Board letter that the memorandum did not actually address whether the “typical antiquated permits” “give rise to vested rights in and of themselves.” As noted above, the 2014 memorandum squarely and thoroughly addressed this issue.

County Counsel further misinforms the Board of Supervisors by stating, at page 7 of its Board letter, that the 2014 memorandum did not address the County’s authority to impose new requirements on new drilling within an existing permit area. Again, the 2014 memorandum hit this issue head on by citing the well-known case of *Hansen Brothers Enterprises, Inc. v. Board of Supervisors* (1996) 12 Cal.4th 533, 565-566. Conveniently, the current Board letter ignores this discussion in the 2014 memorandum.

In *Hansen Brothers*, the Court of Appeal considered a county’s effort to restrict a mining operation. Rejecting the county’s position there that the operator’s future mining proposal mining constituted “an impermissible intensification of the [legal] nonconforming use,” the Court of Appeal noted that the mining operator’s vested right included not only its existing

operations but also the right to mine new areas of the property where the operator had the approval and intent to mine those future areas.

Applying *Hansen Brothers* to the analogous oil and gas operations that the Board now seeks to curb, an approved and vested special use permit vests rights not just to its already-installed wells and related infrastructure, but also to additional wells and infrastructure needed to complete the mineral extraction authorized by a vested permit. As the 2014 memorandum concluded, “for purposes of analyzing the scope of a vested right to operate a business, a business cannot be broken down into components and vested rights recognized for less than the entire business operation.” (Emphasis added.)

The Board letter impermissibly attempts to piecemeal the rights vested by a use permit instead of recognizing that a permittee obtains rights to the entire scope of work authorized by a permit. The Board letter’s newfound approach is inconsistent with *Hansen Brothers* and also belied by the County’s own decades-long treatment of the so-called antiquated permits. First, the County has routinely required only confirmatory zoning clearances for additional wells under the antiquated permits. Second, the County has consistently and repeatedly stated that additional wells in furtherance of approved mineral extraction rights cannot be the subject of further discretionary review.

The Board Letter Intentionally Mischaracterizes the Scope of the Typical Antiquated Permit: In order to provide the needed cover that would allow the Board of Supervisors to amend the NCZO as proposed in Exhibit 3 to the Board letter, the Board letter contends that the antiquated permits are so general and vague so as to not constitute permits at all. Instead, the Board letter argues that the use permits are actually “analogous to general zoning designations,” which designations, conveniently, do not generally vest rights. In support of its position, the Board letter cites only to a cherry-picked portion of a 1955 “typical” antiquated special use permit provided in Exhibit 1. A reading of the full 1955 permit undercuts the Board letter’s position.

At the outset, note that the 1955 permit is itself discretionary in nature and was approved after hearings by both the County Planning Commission and the Board of Supervisors. The 1955 permit authorizes certain mineral extraction and, in turn, the requisite infrastructure for the extraction. Contrary to the misleading portrayal in the Board letter, however, the 1955 permit does not approve unfettered oil and gas production. For example, the permit authorizes drilling only below 4,700 ft. The permit specifically also precludes any processing, refining, packaging, and bulk storage on the property.¹

¹ Note, too, that the 1955 permit provides a full description of the property and its environmental setting and makes findings regarding the suitability of the project in relation to adjacent land uses.

Moreover, the Board letter misleadingly omits any discussions of the substantial conditions within the 1955 permit. Those enumerated conditions:

1. Authorize drilling only on a certain tract of land, while conditions nos. 2 and 7 prohibit any mineral resource production on the northerly 200 ft. of the land or within 100 ft. of the Revlon Slough;
2. Require the removal of drilling equipment after a period of non-use;
3. Preclude debris basins, sumps, and similar items from being located next to certain uses such as schools; and
4. Require conformance with the County's Ordinance Code and the conditions therein as well as the requirements of the Regional Board and the United Water Conservation District.

With regard to the referenced Ordinance Code, the County adopted in 1953 its Ordinance 504 (attached), which imposes additional requirements on oil and gas operators. Remarkably, the Board letter wholly ignores the detailed requirements of Ordinance 504, which of course contradict the Board letter's newfound position that the antiquated permits lack detail and are therefore only comparable to zoning designations. For example, while the Board letter contends that the 1955 permit lacks an expiration date, Ordinance 504 contains criteria for when a permit may expire (for example, if a producing well is not drilled within 12 months of approval or if wells are abandoned). It is not uncommon, let alone impermissible, to utilize expiration criteria in a permit rather than a specific expiration date. The use of such criteria does not somehow convert the 1955 permit into merely a zoning designation.

It is clear that certain members of the Board of Supervisors disfavor mineral resource production in Ventura County. It is equally clear that the County Counsel's office is disingenuously minimizing the scope of the 2014 memorandum and the 1955 permit in order to provide sufficient latitude for their desired policy outcome. As is clear from the full details of the 1955 permit, County Counsel's attempt to characterize the permit as merely akin to a zoning designation – instead of the thoroughly-considered, site-specific, fully-conditioned discretionary permit that it is – does not pass the constitutional bar that must be cleared to negate the vested rights granted by such a permit.

For the reasons above, we request that the Board refrain from taking any in furtherance of the proposed amendments to the NCZO. Please include me (via email) on any future public

Board of Supervisors
September 9, 2019
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noticing regarding this or any related matter.

Sincerely,

A handwritten signature in black ink, appearing to read 'Neal Maguire', with a stylized, cursive script.

Neal Maguire

Attachments

Cc: Jane Farkas (via email)