

Appendix to Attachment A

Impact Report on Initiative to Ban “High Intensity Petroleum operations”

Note: As reflected in the minutes of the public hearing of June 13, 2014 the Board of Supervisors declined to accept The Impact Report on Initiative to Ban High Intensity Petroleum pursuant to Elections Code Section 9111. The report remains a part of the public record for this matter.

ATTACHMENT A

Impact Analysis Report on Initiative to Ban “High-Intensity Petroleum Operations” Responding to Elections Code 9111

Introduction:

The Impact Analysis Report was conducted by County of Santa Barbara staff using the full text (just over 28 pages) of the proposed ordinance. Pursuant to Elections Code section 9105, County Counsel provided the County Elections Official with the following summary of the proposed measure.

Initiative to Ban “High-Intensity Petroleum Operations” including but not limited to Well Stimulation Treatments and Secondary and Enhanced Recovery Operations such as Hydraulic Fracturing, Steam Injection and Acid Well Stimulation Treatment on all Lands within Santa Barbara County’s Unincorporated Area

The proposed Initiative amends Santa Barbara County Comprehensive Plan policies and the Santa Barbara County Code to prohibit the use of any land within the County’s unincorporated area for, or in support of, High-Intensity Petroleum Operations, including but not limited to onshore exploration and onshore production of offshore oil and gas reservoirs. The proposed Initiative states that the prohibition, if adopted, would not apply to onshore facilities that support offshore exploration or production from offshore wells. The prohibition also would not apply to off-site facilities or infrastructure, such as refineries and pipelines that do not directly support High-Intensity Petroleum Operations. The prohibition would apply in any zoning district within the County.

High-Intensity Petroleum Operations are defined by the Initiative to include well stimulation treatments and secondary and enhanced recovery operations such as hydraulic fracturing, cyclic steam, waterflood or steamflood injection and acid well stimulation treatments.

The proposed Initiative authorizes the Board of Supervisors to grant an exception to the application of any provision of the Initiative if the Board of Supervisors finds, based on substantial evidence, that both:

- (1) the application of any aspect of the Initiative would constitute an unconstitutional taking of property, and
- (2) the exception will allow additional or continued land uses only to the minimum extent necessary to avoid such a taking.

The provisions of the proposed Initiative would not be applicable to any person or entity that has obtained, as of the effective date of this Initiative, a vested right, pursuant to State law, to conduct a High-Intensity Petroleum Operation as defined by the Initiative.

The proposed Initiative provides that the Board of Supervisors must take all steps reasonably necessary to enforce the Initiative and defend it against any challenge.

Comprehensive Plan policies and County Code provisions amended and adopted through the Initiative may only subsequently be amended or repealed by the vote of County voters.

Context of Impact Report

As described in the measure, high-intensity petroleum operations include, but are not limited to, two categories:

- “Well Stimulation Treatments” which includes practices such as hydraulic fracturing (“fracking”) or acid-well stimulation to prepare underground formations for producing oil, and
- “Secondary and enhanced recovery operations” which includes the injection of substances such as water, steam, air or gases to produce the oil at the surface.

In Santa Barbara County at the time of this report, there are 1,167 onshore wells that are identified as “operating” or “active”. In 2012, these wells produced approximately 3.4 million barrels of oil, and in 2013 produced 4.3 million barrels. 1,229 onshore oil wells are identified as “idle.” Idle wells are not producing oil at a moment of time due to a variety of possible economic, business or operational drivers. Wells may be classified as idle for weeks, months or even years depending on circumstances. 4,104 onshore oil wells are identified as abandoned. Wells are generally abandoned when all the oil is produced or current production technology is unable to produce additional oil.

It’s not unusual for an oil or gas well to produce economic reserves for decades, depending on the target reserves and production techniques. Enhanced recovery technologies continue to be developed that enable producers to significantly extend the life of wells. Production timelines are influenced by the broader oil and gas market. If technologically feasible, oil and gas projects first rely on low-intensity production methods, allowing wells to flow under their own pressure to reduce operational costs. In Santa Barbara County, historic oil field production has greatly reduced field pressures and therefore most wells soon require some type of enhanced recovery to assist the flow of hydrocarbons to the surface. Furthermore, the most recent larger projects are targeting the Diatomite formation, which requires high-intensity recovery techniques from initial production due to the heavy viscosity of the oil.

No wells in Santa Barbara County are hydraulically fractured, nor are any wells produced by high pressure acid stimulation. One hundred percent of the active wells use at least one secondary or enhanced recovery technique identified in the measure, if for no other reason, than well maintenance. For example, acid and other chemical treatments are routinely added to wells to remove scale and other impurities which clog well perforations and impede hydrocarbon flow from the production zone. These chemicals flow to the surface with the hydrocarbons and are removed during processing. Also, natural gas can be injected into a well bore to assist in lifting oil production to the surface. Waste water extracted from the oil production onsite is also routinely re-injected back into the producing formation, to stimulate flow or for final disposal. Air, steam, CO₂, nitrogen and other gases are also used to aid in production, depending on reservoir characteristics.

Future development and permits

During the last twelve months, the County has permitted 239 oil and gas production wells. Of these, 166 (69%) will use cyclic steaming, a defined high-intensity production operation.

Applications have been submitted but have not yet completed the permitting process for an additional 131 wells. 105 (80%) propose using cyclic steaming. Lastly, County staff is expecting soon permit applications for up to 533 new wells, all of which would be produced by cyclic steaming. In summary, of the permitted, proposed and anticipated 903 new wells, 804 (89%) propose, or are anticipated to propose well stimulation treatments, and use secondary and enhanced recovery operations over the life of the project to develop the hydrocarbon reserves.

Macro impact on oil production

If adopted, the measure would reduce the volume of future oil production in Santa Barbara County. If the measure is approved by voters, once current “vested right” wells produce all of their available oil using conventional or high-intensity extraction methods, future wells will be required to exclusively use traditional extraction methods, unless such wells qualify for an exemption where unconstitutional takings are involved. Such exemptions would be considered on a case-by-case basis. Therefore, it is not possible to know what the specific impacts to oil production would be in a given year, but the trend line would likely move toward fewer barrels of oil.

Report Addressing Elections Code Section 9111

1. *Its fiscal impact.*

In 2013, oil production companies paid approximately \$16.4 million in local property taxes to all tax receiving entities. This includes taxes paid on the assessed values of real property (e.g. land and property improvements) owned by oil production companies, but also the ad valorem tax collected on the assessed value of proven oil reserves in the ground. The \$16 million represents 2.65% of the secured property tax roll collected by the County of Santa Barbara. The Santa Barbara County government receives about \$3.57 million of these property taxes. This is approximately 2.06% of property tax revenue available for county services. Additionally, the Santa Barbara County Fire Protection District received \$2.1 million in property taxes from oil producing companies. This is 5.86% of the Fire Protection District’s property tax revenues. In 2013, school districts received \$10.2 million in property taxes from oil producing companies and special districts received a total of \$493,000.

The initiative’s impact to property tax revenues cannot be precisely determined because they will be influenced by future requests for exemptions related to takings claims and will likely take place on a case by case basis. Similarly, financial impacts to federal or state income taxes collected on royalties paid to holders of private mineral rights cannot be easily quantified and would have only marginal fiscal impacts to County finances.

The County is unlikely to face an immediate loss in tax revenue. It will be a gradual decline. Over time, the assessed value of oil wells, associated equipment and proven oil reserves would trend slightly lower. This would largely be due to the tax on the assessed value of the proven reserves (ad valorem) would decline based on the volume extracted during the preceding year, assuming that the price paid per barrel of oil remains constant. The net

impact to property values of parcels neighboring oil extraction operations is beyond the capability of this report to quantify.

An alternative business scenario that companies may consider as a result of the initiative is whether they would be willing to sell off their capital assets and infrastructure due to poor future business opportunities. This may accelerate the tax revenue loss. The reduction in opportunities to produce oil and gas from onshore reservoirs may also provide producers with more incentive to urge the federal government to lease oil and gas reserves offshore Santa Barbara County.

In September 2013, the University of California Santa Barbara Economic Forecast Project, conducted an analysis of the economic impact of the onshore oil and gas industry for the Santa Maria Valley Chamber of Commerce. The research and report project was led by Doctor Peter Rupert. The project detailed the broad economic impacts, including those:

- Directly related to oil and gas extraction,
- Indirectly related but attributable sourcing of service and supplies to the oil and gas extraction business, and
- Induced economic activity of broad local spending from employees of the oil and gas extraction companies.

Doctor Rupert reported a total (direct, indirect and induced) economic impact of \$291.4 million attributable to the onshore oil and gas extraction business in 2011.¹ Santa Barbara County's Gross Domestic Product (GDP) in 2011 was approximately \$17.75 billion.² This would indicate that the total economic impact of oil and gas extraction would be approximately 1.64% of the county's overall GDP.

The effect of the measure on these primary, secondary and tertiary economic benefits cannot be easily determined. Any potential for economic benefits will be influenced by future exemptions and driven by external factors such as the value (price) and demand for the oil produced in Santa Barbara County. The fiscal impact of the measure to the County of Santa Barbara is likely to occur over the next twenty years.

2. Its effect on the internal consistency of the county's general and specific plans, including the housing element, the consistence between planning and zoning, and the limitations on county actions under Section 65008 of the Government Code and Chapter 4.2 (commencing with Section 65913) and 4.3 (commencing with Section 65915) of Division 1 of Title 7 of the Government Code.

The measure, at Section 6.c, directs amending the County's Comprehensive Plan and all other plans, codes and policies to ensure consistency in the County's General Plan and any specific plans, including the housing elements. There is no portion of the measure that is inconsistent with the limitations to county actions under Government Code section 65008 (discrimination.) There is no portion of this measure that is inconsistent with section Chapter

¹ *Santa Barbara Onshore Oil and Natural Gas Industry: Economic Impact Study*, University of California Santa Barbara Economic Forecast Project, September 2013, page 4.

² <http://www.ucsb-efp.com/index.php/2013/09/12/trends-in-gdp-in-santa-barbara-county-and-the-state-of-california/>

4.2 (housing development), commencing at section 65913, and Chapter 4.3 (density bonuses for housing developments), commencing at section 65915 of the Government Code.

3. *Its effect on the use of land, the impact on the availability and location of housing, and the ability of the county to meet its regional housing needs.*

No direct effect on the availability or location of housing. The measure will not have a direct effect on the County's ability to meet its regional housing needs. The measure may have indirect effect on the use of land by slowly decreasing the land likely to be used for oil development.

4. *Its impact on funding for infrastructure of all types, including, but not limited to, transportation, schools, parks and open space. The report may also discuss whether the measure would be likely to result in increased infrastructure costs or savings, including the costs of infrastructure maintenance, to current residents and businesses.*

The measure's direct effect will be the eventual decline in the volume of oil produced. Depending on the future value of the oil being produced, there may or may not be a reduction of funding for infrastructure. Reducing the volume of oil production in Santa Barbara County may have a small infrastructure cost savings for our roads.

5. *Its impact on the community's ability to attract and retain business and employment.*

The measure's direct effect is the eventual reduction in the volume of oil produced in Santa Barbara County. The development and retention of oil industry businesses and jobs will be negatively impacted over time as vested right oil wells using enhanced recovery technics cease operating and future oil production is solely by conventional methods. The measure may also create attractive opportunities for other business, even within other portions of the energy sector, to establish a presence in Santa Barbara County. If the measure is approved by voters, companies pursuing these future business opportunities would find a skilled and motivated workforce, well developed supply and material networks and an array of professional support businesses from accounting to engineering.

If the measure is approved by voters, once current "vested right" wells produce all of their available oil using conventional or high-intensity extraction methods, future wells will be required to exclusively use traditional extraction methods, unless such wells qualify for an exemption where unconstitutional takings are involved. Such exemptions would be considered on a case-by-case basis. Therefore, it is not possible to know what the specific impacts to oil production would be in a given year, but the trend line would likely move toward fewer barrels of oil. This is likely to occur over the next twenty years. Additionally, the rate of impacts to business and employment will be driven by multiple external factors such as the value (price) and demand for the oil produced in Santa Barbara County.

According to State of California Employment Development Department, in 2011 Santa Barbara County had 183,000 jobs.³ Rupert's report states that in 2011, the oil industry had a

³ Santa Barbara County Recommended Operational Plan FY13-14 and 14-15, page G-7.

direct, indirect or induced effect on 1,954 jobs in 2011.⁴ This would indicate that 1.07% of all jobs in the county had a relationship to the oil and gas industry. The Rupert's report also states that the most affected employment sectors are those engaged in the development and maintenance of wells and leases, wholesale trades, engineering and legal services. These employment sectors make up 32% of the total employment impact.⁵

6. *Its impact on the uses of vacant parcels of land.*

The measures direct effect is the eventual reduction in the volume of oil produced in Santa Barbara County. The use of vacant land will be indirectly impacted by individual property owners exercising their property rights in potentially different ways as a result of a reduction in the volume of oil produced. It is unclear whether the land use changes would be positive, negative or neutral. That being said, all uses of vacant parcels would remain subject to their current zoning, permitting and development requirements.

7. *Its impact on agricultural lands, open space, traffic congestion, existing business districts, and developed areas designated for revitalization.*

The measures direct effect is the eventual reduction in the volume of oil produced in Santa Barbara County. The use of agricultural land, open space, traffic business districts or redevelopment will be indirectly impacted by individual property owners exercising their property rights in potentially different ways as a result of a reduction in the volume of oil produced. It is unclear whether the property use changes would be positive, negative or neutral. That being said, all uses of agricultural, open-space and business properties would remain subject to their current zoning, permitting and development requirements. Direct or indirect impacts to redevelopment projects or traffic congestion resulting from passage of this measure are likely to be negligible.

8. *Any other matters the board of supervisors request to be in the report.*

None

⁴ *Santa Barbara Onshore Oil and Natural Gas Industry: Economic Impact Study*, University of California Santa Barbara Economic Forecast Project, September 2013, page 4.

⁵ *Ibid.*