

COUNTY STAFF MEMORANDUM

To: The Honorable Board of Supervisors

From: Brian R. Baca, Manager *BRB*
Commercial and Industrial Permits
PG 4571, CEG 1922, CHG 398

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RCE 40735

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RCE 51905

Date: October 14, 2015

Re: **CRC Oil and Gas Project, PL13-0150:**
Review of the October 1, 2015 Blue Tomorrow/Newton report

INTRODUCTION

The Citizens for Responsible Oil and Gas (CFROG) submitted a report prepared by Blue Tomorrow, LLC and Newton Geo-Hydrology Consulting Services (Bradley E. Newton, PG 8181) in support of its appeal of the Planning Commission decision to approve the CRC oil and gas project. This report provides comments on engineering matters involving the hydrology of Santa Paula Creek and environmental issues associated with the proposed continued use of the existing Drill Site #7. It also includes comments related to biological resources.

DISCUSSION

Lack of required certification:

The October 1, 2015 report is certified by Professional Geologist Bradley E. Newton (PG 8181). This report includes various calculations and interpretations regarding drainage and flooding issues pertaining to Drill Site #7 and Santa Paula Creek. Such calculations and interpretations constitute the practice of Civil engineering as defined in Section 6731 of the California Business and Professions Code (BPC). This section reads as follows:

6731. Civil engineering embraces the following studies or activities in connection with fixed works for irrigation, **drainage**, waterpower, water supply, **flood control**, inland waterways, harbors, municipal improvements, railroads, highways, tunnels, airports and airways, purification of water, sewerage, refuse disposal, foundations, **grading**, framed and homogeneous structures, buildings, or bridges:

- (a) The economics of, the use and design of, materials of construction and the determination of their physical qualities.
- (b) The supervision of the construction of engineering structures.
- (c) **The investigation of the laws, phenomena and forces of nature.**
- (d) Appraisals or valuations.
- (e) **The preparation or submission of designs, plans and specifications and engineering reports.**
- (f) Coordination of the work of professional, technical, or special consultants.
- (g) Creation, preparation, or modification of electronic or computerized data in the performance of the activities described in subdivisions (a) through (f).

Civil engineering also includes city and regional planning insofar as any of the above features are concerned therein. Civil engineers registered prior to January 1, 1982, shall be authorized to practice all land surveying as defined in Chapter 15 (commencing with Section 8700) of Division 3.

[emphasis added]

Pursuant to BPC Section 6730, the practice of civil engineering is limited in the State of California to individuals who *"shall submit evidence that he or she is qualified to practice, and shall be licensed accordingly as a civil engineer..."*. Mr. Cooper is not licensed as a civil engineer and is prohibited from practicing civil engineering in the State of California. For this reason, the engineering analysis, interpretations and conclusions presented in the October 1, 2015 are not legally valid and do not constitute substantial evidence on the record that should be considered by the Board of Supervisors in making a decision on the PL13-0150 application.

Review of report:

Because the October 1, 2015 report addresses a variety of issues, in addition to civil engineering matters, County staff reviewed the document and prepared responses to the key points made therein for the Board's information. Provided in the table below are comments (excerpts) from the October 1, 2015 report along with a response prepared by County staff.

Comment No.	Page No.	Excerpt from the October 1, 2015 report	Staff Response
1	ES-1	<i>"CUP PL13-0150 has never had an adequate environmental review following CEQA guidelines to determine the impacts of this project to water quality, the endangered Steelhead, or habitat."</i>	The subject oil and gas facility has been evaluated for environmental effects in two EIRs (certified in 1978 and 1984) and an EIR Addendum. No significant impacts on biological resources were identified. The current proposal involves the continued use of existing graded pads with no new disturbance of native habitat. No substantial evidence has been presented or identified that the placement of five additional oil wells on the existing Drill Site #7 graded pad will result in a significant impact on biological resources.
2	ES-1	<i>"The environmental review took place prior to the steelhead being listed as an endangered species and before both the NCZO and the VCWPD's WP-2 Ordinance existed, which prohibit such installations as DS7 for water quality and flood control reasons."</i>	<p>The environmental review of the installation of Drill Site #7 was completed with the certification of an EIR in 1984. This certified EIR incorporates the MND prepared to evaluate the effects of the installation of DS7. No significant impacts on biological resources (including aquatic life in Santa Paula Creek) was identified. No substantial evidence has been presented or identified that the placement of five additional oil wells on the existing Drill Site #7 graded pad will result in a significant impact on biological resources. The listing of the Steelhead as endangered does not, in itself, constitute an environmental impact.</p> <p>The certification of the 1984 EIR and approval of CUP 3344 Modification #8 (including the approval of Drill Site #7) occurred</p>

			<p>after the current creek setback standards for oil and gas wells were incorporated into the Non-Coastal Zoning Ordinance (NCZO) with the adoption of Ordinance No. 3658 on September 27, 1983. When CUP 3344, Modification #8 was granted in 1985, the Board of Supervisors found the design of Drill Site #7 to be in conformance with NCZO requirements, including the creek setback standards. Graded pads for oil and gas drill sites are allowed along creeks in accordance with these setback standards.</p> <p>This comment confuses environmental review conducted pursuant to CEQA with the determination of consistency with ordinance standards. These are separate considerations in the planning process.</p>
3	ES-2	<i>"DS7 is built within the Santa Paula Creek Channel."</i>	<p>Drill Site #7 was not constructed within the channel of Santa Paula Creek. This drill pad was constructed at the site of a pre-existing borrow pit that was separated from the creek area by a levee. Drill Site #7 was approved as part of the granting of Modification #8 of CUP 3344 in 1985 and constructed under permits issued by the County Public Works Agency. This pad is part of the existing setting and is located south of the top of bank of Santa Paula Creek as it exists today.</p>
4	ES-2	<i>"Santa Paula Creek is high quality steelhead"</i>	<p>The proposed project does not involve any grading or expansion of Drill Site #7 or any well</p>

		<i>habitat in jeopardy of degradation."</i>	installation within 100 feet of the top of bank of the creek. The potential for effects on biological resources has been evaluated in two certified EIRs and an EIR Addendum. No substantial evidence has been identified that the addition of 5 wells on the existing pad will result in a significant impact on biological resources, including the steelhead.
5	ES-2	<i>"100 percent of DS7 is within 300' from the Red Line flow boundary, and more than 50 percent of DS7 is within 100' of the Blue Line and Q50+4 (height of discharge for 50-year return interval plus 4 feet) flow boundary of the modified channel."</i>	The location of Drill Site #7 relative to the channel of Santa Paula Creek is not in dispute. Drill Site #7, however, is part of the existing setting and not proposed to be altered. The 5 new wells proposed to be placed on this pad will be setback 100 feet from the top of bank of the creek in accordance with NCZO standards. In any case, graded drill pads are not subject to the creek setback standards. Only wells, equipment and similar facilities are subject to the setback standards. NCZO Section 8107-5.6.1 specifically refers to <i>"drill sites located within the 100-year flood plain..."</i> .
6	ES-2	<i>"Q500 (discharge for a 500 year return interval floods) inundates DS7 at the north end."</i>	There is no requirement in the NCZO to set back oil wells and associated equipment from a projected 500-year flood level. Section 8107-5.6.1 specifically refers to <i>"drill sites located within the 100-year flood plain..."</i> .
7	ES-2	<i>"Runoff from DS7 is conveyed by a 24" culvert pipe directly into Santa Paula Creek."</i>	The graded pad and drainage facilities that comprise Drill Site #7 were authorized with the granting of CUP 3344 Modification #8 in 1985 and constructed in accordance with

			permits issued by the Public Works Agency. The proposed project involves no changes in this pad. The installation of five new wells on this pad involves the placement of only 2,000 square feet of new impervious surface on an 80,000 square foot pad. This change in runoff characteristics is negligible and would not measurably affect the runoff volume from this existing facility. A manual valve has been placed on the storm drain which can be opened or closed by the operator as a means to manage the flows from the onsite storm drainage system into the creek.
8	8	<i>"Ventura County Watershed Protection Ordinance No. WP-2 prohibits without a District permit, Section 202: (a) Impair, divert, impede, or alter the characteristics of flow of water running in a watercourse; (b) Deposit any material of any kind in a watercourse so as to obstruct it, or to impair, divert, impede, or alter the characteristics of the flow of water therein..."</i>	This comment references current Watershed Protection Ordinance WP-2. The requirements of this ordinance are not applicable to the proposed project. The graded and engineered pad that comprises Drill Site #7 is an existing permitted feature not proposed to be altered. Thus, no effect on the conveyance of flow in Santa Paula Creek would occur with project implementation.
9	10	<i>"Previous environmental impact evaluations were conducted prior to the enactment of the Ventura County Non-Coastal Zoning Ordinance Sec. 8107-5.6.1 and the Watershed Protection Ordinance No. WP-2, and prior to the designation of the Southern California</i>	Refer to responses to comments 2 and 8 above.

		<i>Steelhead as an endangered species and</i> "	
10	11	<i>"Discharge was measured above 10,000 cubic feet per second (cfs) 9 times from 1933 to 2013, and the highest discharge was estimated at 27,500 cfs and recorded on January 10, 2005."</i>	The February 10, 2015 Planning Division Memorandum prepared by Brian R. Baca (CEG 1922) included in the Planning Director approval letter (Exhibit 4a) addresses the issue of flood hazards related to Drill Site #7. As documented by aerial photographs, the graded pad that comprises Drill Site #7 did not suffer any damage in the 2005 flood. The Blue Tomorrow report serves to demonstrate that no adverse effects on Drill Site #7 occurred due to the highest flood levels experienced in the 80 years of record. Thus, staff continues to conclude that there are no potentially significant impacts related to flooding that would result from the placement of five new wells on the existing pad.
11	16	<i>"These clays and silts are presumably being transported from areas closer to the wells to the Santa Paula Creek during storm events when surface runoff is occurring."</i>	This comment does not provide substantial evidence of a significant impact on water quality due to runoff from the existing graded pad that comprises Drill Site #7. This pad is an existing permitted feature and is not proposed to be altered. The addition of five oil wells to this site would involve only 2,000 square feet of new impervious surfaces. This area is negligible would not have a measurable effect on site runoff.
12	23	<i>"During the 2005 flood event, aerial imagery shows that riparian vegetation was scoured out, leaving little to no</i>	This comment fails to mention that while the creek bed was scoured and vegetation almost completely removed, there was no flooding or erosion of the Drill

		<i>vegetation between the high water marks from this event. It can be assumed that this is likely to happen again during flow event of similar magnitude (50-year event) or greater, depending on the status of the vegetation present at the time of the flood."</i>	<p>Site #7 pad. In fact, none of the vegetation growing on the rock revetment that forms the northern edge of this pad was removed by flood waters. Thus, no impact related to flooding has been identified for the continued use of the existing pad.</p> <p>Refer also to response to comment 11 above.</p>
13	27	<i>"Figure 12 – Edge of flow for Q50+4' discharge event at DS7"</i>	<p>The boundary of creek flow shown in this figure largely coincides with the boundary of flow identified by County staff. This boundary is delineated along the base of the rip rap (rock revetment) that forms the northern edge of the graded pad that comprises Drill Site #7. Thus, the Blue Tomorrow report expresses agreement with the County's determination that Drill Site #7 and the proposed five new wells are not subject to a flooding hazard.</p>
14	27	<i>"According to Section 8107-5.6.1 of the ordinance, 'No well shall be drilled and no equipment or facility shall be permanently located within : d) 300 feet from the edge of existing banks of Red Line channels...'"</i>	<p>This comment fails to mention that Section 8107-5.6.1.d allows for the creek setback to be adjusted down to as little as 50 feet if the Permittee "can demonstrate to the satisfaction of the Public Works Agency that the subject use can be safely located nearer the stream or channel in question without posing an undue risk of water pollution, and impairment of flood control interests." In this case, the Public Works Agency has approved a 100-foot setback from the Top of Bank for the proposed wells.</p>
15	30	<i>"Increasing the number of wells and operations on</i>	<p>There is some risk in the development and operation of oil</p>

		<i>the pad will increase the potential for spills, and the additional impervious surface will lead to increased surface runoff and discharge through the drain pipe and culvert, where well pad pollutants are released into the creek."</i>	<p>and gas facilities. For this reason, such facilities are highly regulated by the State and County. In this case, there is no substantial evidence that the proposed addition of 5 new oil wells to an existing pad poses a significant risk of water contamination.</p> <p>This comment is speculative and made without any factual basis. The County is unaware of any oil spills or substantial pollution that has resulted from the 25 years of oil operations conducted on Drill Site #7.</p> <p>Refer also to response to comment 11 above.</p>
16	30	<i>"It is likely that pollutants that accumulate on DS7 from spills and pollutants deposited from the operation of machinery are currently being released into the creek."</i>	<p>This comment is speculative and made without any factual basis. The County is unaware of any oil spills or substantial pollution that has resulted from the 25 years of oil operations conducted on Drill Site #7.</p>

Additional Technical Report Review Comments by the Public Works Agency:

Licensed Civil Engineers from the Development and Inspection Services Division and the Watershed Protection District reviewed the October 1, 2015 report on Hydrologic Considerations of CUP PL13-0150 Drill Site No. 7 – Ferndale Lease, Ojai Oil Field. The technical analysis and report's conclusions demonstrate that the existing Drill Site No. 7 pad is not adversely flooded by Santa Paula Creek in storm events that range from a 2-year storm to a 500-year storm. The report supports that the Creek flows do not rise high enough to inundate the pad and support the Public Works Agency's placement of the top of bank at the 50-year storm water surface elevation plus four feet of freeboard. Both the 100-year flood water surface and the 500-year water surface in the report's HEC-RAS analysis showed that there was sufficient freeboard of at least two to four feet between the Creek's water surface and the existing pad with a conservative Manning's roughness coefficient of $n=0.07$ for the channel. The overall context of the report was made by examining the AQUA TERRA 2009 Hydrologic model which the Ventura County Watershed Protection District supports for this location. In summary the

methodology used in the Blue Tomorrow report to analyze the storm flows in the Santa Paula Creek are reasonable to the Public Works Agency and the conclusions corroborate with the previous findings that were made by the Public Works Agency.

SUMMARY

As indicated in the staff responses to comments above, the October 1, 2015 Blue Tomorrow/Newton report does not provide substantial evidence of a potentially significant impact that would result from the proposed project. This report also does not provide any evidence that the proposal under review is inconsistent with any law or regulation. In fact, the report supports the analysis by County staff that the Drill Site #7 graded pad is not subject to flooding.

The recommended actions provided by staff in the Board Agenda Letter for the October 20, 2015 hearing on the PL13-0150 application remain unchanged.