

**APPLICANT'S RESPONSE to the
HUASNA VALLEY ASSOCIATION'S COMMENTS to the
ENVIRONMENTAL IMPACT REPORT – NOTICE OF PREPARATION**

12 November 2009

Peer-Review

The applicant has prepared numerous studies reflective of the revised project and submitted them as part of the project application. All reports and analysis were prepared by County approved consultants who are experts in their given field and who have local knowledge in their respective areas of expertise. As part of the peer-review process, these reports will be reviewed by the EIR consultant to verify that the methodology behind the analysis was sound and that the data supports a conclusion that is factual and scientifically valid. If any given report is deemed to lack sufficient data, the EIR consultant will conduct additional analysis. We assume that the applicant supplied reports will not stand alone, but rather be reviewed by both the County and the EIR consultant and form the basis for the consultant's work effort.

There is no legal basis for the notion that it is improper to rely on applicant-funded technical studies under CEQA. To the contrary, CEQA explicitly provides for the use of applicant-prepared or funded materials, and numerous court cases have validated this as acceptable practice. *See* 14 Cal. Code Regs. § 15084 (lead agency may prepare a draft EIR by “accepting a draft prepared by the applicant, a consultant retained by the applicant, or any other person”); *Eureka Citizens for Resp. Govt. v. City of Eureka* (2007) 147 Cal.App.4th 357, 369 (peer-review of applicant-prepared draft EIR prior to release to public completely acceptable and “common in California”); *Friends of La Vina v. County of Los Angeles* (1991) 232 Cal.App.3d 1446, 1452-56 (CEQA statutory text “refutes the notion that an EIR must be the product of the agency's own authorship, to the exclusion of the applicant or its consultant”); *See also City of Poway v. City of San Diego* (1984) 155 Cal.App.3d 1037, 1042; *Found. For San Francisco's Architectural Heritage v. City and County of San Francisco* (1980) 106 Cal.App.3d 893, 908; *Concerned Citizens of Palm Desert, Inc. v. Bd. of Supervisors* (1974) 38 Cal.App.3d 272, 287-88. Indeed, without relevant applicant-supplied information, preparation of an EIR would be nothing more than an abstract analytical exercise that would fall short of meeting CEQA's objectives.

Existing Code Violations

Excelaron has contacted the San Luis Obispo County Code Enforcement Division (“Code Enforcement”) regarding the “existing code violations” referred to by the HVA. There are no existing violations on record with Code Enforcement. Moreover, SLO County Land Use Ordinance §22.01.070 requires that any new projects must include plans to rectify existing violations on the property prior to establishment of the new use, but does not require removal or remediation prior to approval of the project.

In addition, California case law has established the general rule that a proceeding involving an application for a new or amended permit should bear no relation to enforcement or revocation actions based on previous violations. *Bakman v. Dept. of Trans.* (1979) 99 Cal.App.3d 665, 678; *accord, Baird v. County of Contra Costa* (1995) 32 Cal.App.4th 1464, 1470-71. California law is equally clear that “preparation of an EIR is not the appropriate forum for determining the nature and consequences of prior conduct” at a project site. *Riverwatch v. County of San Diego* (1999) 76 Cal.App.4th 1428, 1452.

Regardless, Excelaron has committed to remediating the project site as part of the project description. (See Supplement to the Application¹, Site Cleanup and Existing Well Abandonment Phase, page 5) This remediation will take place irrespective of the success of the exploration phase.

¹ Referenced Reports-Supplement to the Application

Private Easements and Agreements

The details of the easement agreements Excelaron has negotiated with various landowners are not required to complete the EIR and will not inform the environmental review process in any manner. All information necessary to study the environmental impacts of project traffic ingress and egress, including specifics regarding the proposed traffic route and anticipated vehicle trips, are set forth in the project description and other application materials.

Williamson Act Review

Excelaron has included two parcels in its project description (085-271-001 and 085-271-004). The location of the Shipping Site, within parcel 085-271-004, was based on the County Assessor's GIS map database (see attached aerial photograph) and records indicating that a previous well within that site was drilled on parcel 085-271-004. Parcel 085-271-001, the parcel under Williamson Act contract, was included in the project description in the event that any significant improvements to the roads within this parcel are required.

Produced Water Disposal

The processing facilities have been designed to accommodate a water disposal rate of 1,128 barrels of water per day ("BWPD"). This disposal rate condition occurs under the proposed future twelve (12) well scenario and assumes a water cut ratio of 67%. Given the small amount of past production from this field as well as production information from similar fields and formations, a water cut ratio of 67% is a very conservative estimate and the true water cut may be much lower. (See Facility Engineering Report², page 14)

Given the conservative estimate for the water cut ratio under the maximum field development scenario, it is unlikely that more water will be produced than has been anticipated. Additionally, the California Department of Oil, Gas, and Geothermal Resources ("CDOGGR") requires that injection/disposal wells be tested and proven to be capable of accepting the proposed disposal rate and/or water. Produced water, without much treatment and processing may be classified as a Class II fluid. Any injection of Class II fluids is monitored under the CDOGGR's Underground Injection Control Program. The disposal well will be fitted with two (2) injection pumps for redundancy purposes and the well(s) location will require minimal piping from the water tank. (See Facility Engineering Report³, page 14)

In the event that production wastewater cannot be disposed of down the well, vacuum trucks can be brought onto the site to haul the water offsite to an appropriate disposal facility. If the wastewater tank cannot be emptied at a sufficient rate, temporary shut-in of the facilities may be required. This would require halting the production of crude oil until such time as the disposal problem has been remedied.

Analysis of Oil Production

Attached to the Huasna Valley's Association NOP letter is an analysis of oil production from Excelaron's proposed facilities. The underlying assumptions and misconstruction of this analysis leads to faulty conclusions. As an example, the author assumes that production rates will asymptotically approach the historic average well production of 13.5 bbl/day. (Data taken from CDOGGR's online production information.) This assumption does not take into account the reliability of that data, or the advances in modern recovery technology. The letter makes a series of other misguided assumptions, notably, water cut. It is noteworthy that the Arroyo Grande oil field's wells are located in the Pismo formation – a fresh

² Referenced Reports – Facilities Engineering Report

³ Referenced Reports – Facilities Engineering Report

water aquifer and the same formation as existing ground water wells. Due to the age of the field (i.e., production since the late 1800s) and the type of enhancement (i.e., steam), higher water cut percentages would be expected. This is in contrast to Excelaron's proposed project that proposes wells in the Monterey formation (not fresh water bearing) in a young, minimally produced field.

Finally, the letter assumes that the historic rate of successful producing wells (12%) in the Huasna Valley (note: the majority of these wells were drilled from 1890-1960) is relevant to today's industry. The letter then uses this antiquated production rate to indicate that Excelaron may need to drill 104 wells to acquire 12 producing wells. That assumption is entirely unfounded from a technical perspective and would not be feasible from an economic perspective. Excelaron's proposed project includes a maximum of twelve producing wells over a five-year period. One dry well, let alone multiple dry holes, may be cause enough to stop the exploration project.

Excelaron submits that HVA's "analysis" has not been prepared by a qualified, licensed professional and constitutes "unsubstantiated opinion." *See* Pub. Res. Code § 21082.2 Therefore this aspect of HVA's NOP response should not be included in the EIR consultant's review of project related material. By contrast, the applicant's oil production estimates were produced, analyzed, and professionally stamped by Cannon, a local engineering firm with decades of experience in the oil and gas industry.

Hot Water Injection

After careful examination of the data provided from previous exploratory operations, and in consideration of existing technology and available power sources, hot water flood is the preferred enhanced oil recovery method ("EORM"). Hot water flood requires hot water, heated to approximately 150° F, to be reinjected down the wells. The efficiency and effectiveness of a hot water flood in the Huasna Oil Field is unknown at this time.

The hot water flood method provides a heat source directly to the producing formation (e.g., Monterey Formation) to lower the viscosity of the fluids in the reservoir. The heat from the hot water flood can have an effective radius up to 150 feet from the well bore. It is estimated that using a hot water flood as an EORM is effective up to a depth of approximately 2000 feet, due to heat loss. This makes it an effective recovery method for the primary 8-12° API oil. Any oil deposits existing beyond the depth of 2000 feet would need to be produced under primary recovery scenarios (i.e., under natural pressure). The lower geologic objectives may be produced under primary recovery scenarios under the following circumstances: 1) the gravity of the oil is significantly higher; or 2) the temperature gradient of the Monterey or Vaqueros Formations is higher than normal for those depths.

Excelaron has not included steam producing equipment within the project description or its facility design. Steam injection was determined not to be an economically feasible alternative based upon current power sources in the Huasna Valley, energy demands and the requirement for large quantities of fresh water associated with the methodology. Therefore, steam injection, as an EORM, should not be analyzed as an alternative methodology as it is not likely to reduce any potential environmental impact to a less than significant level. *See* 14 Cal. Code Regs. §15126.6(c). Despite previous well records in the area indicating "steam baths" it is highly unlikely that steam was actually used considering the power, facilities, and fresh water source required to produce steam.

Blend Oil Tank

No diluent (a refined product) will be utilized for this project. A minimal amount of high gravity crude oil (20-30 degrees API) will be blended with the native crude production in order to lower the viscosity and raise the gravity. The blending will take place within the flowlines (pipelines) as produced fluids are transported to the processing facilities and not downhole. The resultant increase in gravity is typically

required by the crude buyer to render off loading and crude handling easier and more efficient. It is anticipated, based on historical use of blend oil in some Santa Maria heavy oil fields, that 20 barrels or less per day of lighter gravity oil will be required by the Excelaron project. This would result in the potential of 600 barrels of blend oil per month or approximately 5 truckloads. This oil will be transported to the project as a truck “backhaul”, i.e., a tanker truck coming into the project site to haul “out” produced oil will haul “in” a load of blend oil resulting in no additional truck trips.

Water Processing Facility

The crude processing facilities have been described in detail in both the Supplement to the Application⁴ and the Facility Engineering Report⁵. The facilities include a water knockout system that separates the crude oil from any produced water and natural gas. Both the produced water and natural gas are recycled for use within the production system. Produced water is either reinjected as part of the EORM or disposed of into the formation through a disposal well. Should natural gas be produced, it will be used as an additional fuel source.

There is no “water processing facility” as the actual separation of fluids will take place within the tanks. The separated, produced water will not require any additional treatment prior to injection. The associated emissions from all tanks and other equipment, including traffic related emissions, have been modeled and analyzed in detail within the Air Quality Impact Analysis.⁶ The report summarized emissions and related level of significance, and provided mitigation measures, accordingly. These measures have been incorporated into the project description.

Huasna Bridge Evaluation and Mitigation

Excelaron has submitted a proposal to strengthen the bridge by adding a new deck with additional stringers. (See Structural Evaluation⁷.) The new deck addition has been designed to accommodate the proposed project related vehicles. This design will be reviewed and approved by the County of San Luis Obispo’s Public Works Department before issuance of an encroachment permit and all work will be conducted subject to the County’s supervision, verification and approval. Because Excelaron is proposing the bridge retrofit as project mitigation and will bear the entirety of the cost, there should be no reason to put the work out to public bid.

Shut-down Process

Project related vehicles will have access over the Porter Ranch private access easement. A portion of this road is adjacent to the upper reaches of the Twitchell Reservoir. The upper reaches of the Twitchell Reservoir have been known to periodically flood. Excelaron has agreed to cease operations (i.e., shut down production from active wells and related facilities and stop all truck ingress/egress) should access on the Porter Ranch private easement be impacted by floods. To better define the criteria when operations will be required to cease, an analysis of the potential flood conditions has been prepared. (See Porter Ranch Access Road/Twitchell Reservoir Report⁸). This report established a specific contour elevation as the “trigger” for ceasing operations.

Given that there is a finite amount of storage capacity available to the facility it would be impossible to continue to produce oil during such shutdown. If the potential for a shutdown appears likely, Excelaron

⁴ Referenced Reports – Supplement to the Application

⁵ Referenced Reports – Facilities Engineering Report

⁶ Referenced Reports – Air Quality Impact Analysis

⁷ Referenced Reports – Structural Evaluation

⁸ Referenced Reports – Porter Ranch Access Road/Twitchell Reservoir Report

will adhere to the mitigation measures set out in Cannon’s Twitchell Reservoir Report. (See Twitchell Reservoir Report⁹, Mitigation, page 4) Given that a shutdown can generally be anticipated within a reasonable timeframe, any stored oil can be transported offsite prior to facility shutdown. Once facilities are in the shutdown mode, project related traffic would include only those vehicles related to monitoring.

Technical Reports

Please note the comments related to “Peer Review,” above. CEQA Guidelines section 15084(c) provides that “any person, including the applicant, may submit information or comments to the lead agency to assist in the preparation of the draft EIR. The submittal may be presented in any format, including the form of a draft EIR. The lead agency must consider all information and comments received. The information or comments may be included in the draft EIR in whole or in part.” 14 Cal. Code Regs. § 15084(c). Clearly, the County is not only permitted to, but is required to, consider all submitted studies and materials, provided they are based on fact and do not constitute mere “argument, speculation, unsubstantiated opinion or narrative, evidence which is clearly inaccurate or erroneous” Pub. Res. Code § 21082.2(c). The fact that Excelaron’s materials were submitted prior to any EIR scoping meetings does not render them irrelevant or inaccurate, particularly in this situation where the project has essentially been through the CEQA mitigated negative declaration process already.

HVA claims that the EIR “should rely only on independent, unbiased technical studies based on a triple-peer-reviewed project description.” This statement reflects an ignorance of CEQA and the law. Here, the County need only commission independent third-party technical studies where the materials already in its possession are inadequate or lacking in information necessary to evaluate the project’s environmental effects. “Triple-peer-review” is an editing methodology sometimes used in reviewing scientific articles prior to publication in scholarly journals, but has not been required under CEQA or the National Environmental Policy Act (NEPA), so far as we could ascertain.

Reliance on 1980 Lorena Project EIR

The project description and all of the applicant’s supporting reports and analyses make no reference to or rely on any information contained in the 1980 Lorena Project EIR. This application and project description are entirely new and not a continuation or revival of a previous project. The supporting data has been gathered by the applicant’s team of qualified consultants, all of whom are experts in their given field of study. None of the supporting data is derived from the previous EIR. The County’s Initial Study makes note of this document as part of the background information on the project site and solely references the previously considered EIR alternatives.

Oak Tree Mitigation

The applicant’s request that all oak tree mitigation be addressed through an in lieu fee program is meant to address biological impacts from the project and not visual impacts. Visual impact mitigations were suggested by the applicant but will be reviewed by the EIR consultant for appropriateness and effectiveness. The applicant has asked to apply the in lieu fee due to the limited space available within the project site to plant and raise new oak trees and to avoid any potential conflict with existing agricultural operations.

⁹ Referenced Reports – Porter Ranch Access Road/Twitchell Reservoir Report

Fuel Consumption Data for Emissions Analysis

Fuel consumption data was compiled by Cannon and described in their report (See Facility Engineering Report¹⁰, Facility Propane Usage, page 23). Cannon performed a thorough design analysis based on the known characteristics of the field, the applicants proposed recovery methodology, and their expertise in the engineering industry. The fuel consumption estimates were derived from the proposed facilities design and equipment, fuel usage during reasonably foreseeable case scenarios, and the stated assumptions. This fuel consumption data was then provided to Golder Associates and included in their Air Impact Analysis report¹¹.

Road Mileage

The distance from the proposed Well Pad 2 to Huasna Townsite Road (total project access road length) is 2.5 miles as described in Golder's Air Impact Analysis. The entire length of the road, currently dirt, gravel and pavement in various sections, was analyzed for PM10 emissions. (See Air Impact Analysis, Table 4) The distance from the intersection of the project access road and Huasna Townsite to the Huasna bridge (or total distance traveled on Huasna Townsite Road) is 1.5 miles.

Natural Gas Forecast and Handling

As noted, propane will be used as the fuel source for the initial start-up of well production. As production progresses, some natural gas may be produced along with the oil. However, the Monterey Formation historically has a low gas/oil ratio when producing low gravity oil. Therefore, it is anticipated that any of the associated natural gas will be utilized to fuel well engines and for heating during the oil and water processing. The need to flare excess gas is not anticipated. The use of produced natural gas will lower the consumption of propane over time.

Cannon's facility design includes a Vapor Recovery Unit with gas scrubber and Gas Processing Vessels designed to capture any natural gas and make it a viable source of fuel to be used by the facility. In addition, SLO County APCD will oversee and regulate all emissions associated with this project.

Naturally Occurring Radioactive Materials

Naturally Occurring Radioactive Materials (NORM) and the potential for presence within the project site have been evaluated in Earth Systems Pacific Geological Hazards Report¹². According to Special Report 208, by the California Geological Survey (Churchill, 2008), radon is most commonly found in areas of San Luis Obispo County that are underlain by bedrock of the Monterey formation. The project site is underlain by sandstone and silty shales of the Santa Margarita formation, therefore the potential for radon gas to affect the project is considered to be low. Additionally NORM requires exposure in order to decay. Since the proposed project is extracting oil, and not the source rock, no opportunity for decay exists. There are no proven occurrences of NORM in the area.

Noise Analysis

David Dubbink Associates has analyzed the noise impacts associated with the twelve (12) well scenario as part of their Noise Analysis report. This is an analysis of the maximum case scenario. (See Noise Analysis¹³, Noise Assessment- Proposed Project, page 5)

¹⁰ Referenced Reports – Facilities Engineering Report

¹¹ Referenced Reports – Air Quality Impact Analysis

¹² Referenced Reports – Geological Hazards Report

¹³ Referenced Reports – Noise Analysis

Area of Potential Groundwater Impact

The scientific basis for the “area of potential groundwater impacts” is described in detail in the Water Resource Studies (See Water Resource Studies¹⁴, Geological Limitation of Project Impacts, page 3). The boundary of this area is based on the known geological structures and stratigraphy.

Orphaned Wells On Site

The District 3 California Department of Oil, Gas, and Geothermal Resources (CDOGGR) located in Santa Maria recently obtained funding through the CA Orphaned Well Program to plug and abandon the existing wells located on the project site. CDOGGR’s intent to plug and abandoned is outlined in its June 22, 2009 letter to the San Luis Obispo County Planning Department. It is our understanding that the CDOGGR has received bids from multiple contractors and is in the selection process. Plugging and abandonment work is anticipated to begin before the end of the year. In addition, Excelaron had agreed to clean, abate, and remove all previous above-ground oil field equipment left on site.

Cumulative Effects

Under CEQA, a cumulative impact “consists of an impact which is created as a result of the combination of the project evaluated in the EIR together with other projects causing related impacts. An EIR should not discuss impacts which do not result in part from the project evaluated in the EIR.” 14 Cal. Code Regs. § 15130(a)(1). When evaluating the potential for cumulative impacts resulting from other projects, the EIR should consider “reasonable [sic] foreseeable probable future projects.” 14 Cal. Code Regs. § 15355. Here, no other oilfields have been proposed for development, and “interest” in the acquisition of mineral rights in the region by other companies does not constitute a reasonably foreseeable, probable project.

The County staff originally recommended a Mitigated Negative Declaration for this particular project due to the fact that all necessary infrastructure was in place. That is not the scenario regarding other “marginal” oilfields in San Luis Obispo County. Nor does this project’s potential relate to the viability of other fields in any way.

In any event, “a project’s contribution is less than cumulatively considerable if the project is required to implement or fund its fair share of a mitigation measure or measures designed to alleviate the cumulative impact.” 14 Cal. Code Regs. § 15130(a)(3). Excelaron has proposed numerous mitigation measures, including fair share apportionments of road improvements, that should adequately address any cumulatively considerable impacts of the project.

Economic Analysis

Wholesale economic analysis of all proposed mitigation measures is not required by CEQA. Before the economic feasibility of a mitigation measure is relevant, it must first have been determined to be both effective in reducing some environmental impact attributable to the project, and feasible in all other respects. See 14 Cal. Code Regs. § 15364 (“‘Feasible’ means capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors”); § 15126.4(a)(5) (“If the Lead Agency determines that a mitigation measure cannot be legally imposed, the measure need not be proposed or analyzed”). Moreover, an applicant must ostensibly first refuse to voluntarily implement a particular mitigation measure for economic reasons before any economic analysis would be warranted.

¹⁴ Referenced Reports – Water Resource Studies

HVA's claim that, because Excelaron has proposed mitigations that include the payment of in lieu and fair share fees, "an analysis of the full cash flow benefits of this project should be conducted" is not part of CEQA law. CEQA is not concerned with the cash flow benefits of a project but with its environmental effects and, where possible, mitigating those effects to a less than significant level. Full mitigation is not required, and the environmental review process should not be used to compel the disclosure of trade secret information such as the expected profitability of a project, and then used to justify and extract further mitigation fee payments from the applicant than would be necessary to reduce the project's impacts to an acceptable level.

EIR Alternatives

Because the purpose of an EIR is to identify ways to reduce or avoid significant environmental effects, the alternatives discussed in an EIR should be those that offer substantial environmental advantages over the proposed project. *Citizens of Goleta Valley v. Bd. of Supervisors* (1990) 52 Cal.3d 553, 566. Excelaron submits that the construction of a pipeline to transport the oil in lieu of trucks would actually have significant environmental disadvantages, such as potential impacts to sensitive species and habitat. Such an "alternative" is really a project in and of itself. Moreover, this alternative is likely legally not feasible due to the right-of-ways that would need to be obtained, and could not be accomplished within a reasonable period of time.

Furthermore, though an EIR must discuss a reasonable range of alternatives to the proposed project or its location, the EIR is not required to consider alternatives to a component of a project or separate alternatives for each impact; the focus should be on alternatives to the project as a whole. *See Big Rock Mesas Prop. Owners Ass'n v. Bd. of Supervisors* (1977) 73 Cal.App.3d 218. Arguably, the transportation of oil through a pipeline or the use of grid-based or on-site renewable power are not project alternatives, but potential mitigation measures and should be evaluated under that rubric. Accordingly, they must first be necessary to reduce a significant impact to a less than significant level, and must also be feasible, as that term is defined in CEQA. *See* 14 Cal. Code Regs. § 15364.

Referenced Reports

Supplement to the Application-Conditional Use Permit, Huasna Valley Oil Exploration and Production Project

Prepared by Excelaron LLC

July 22, 2009

Facilities Engineering Report Huasna Valley Oil Field

Prepared by Cannon Associates

July 1, 2009

Porter Ranch Access Road / Twitchell Reservoir Report Huasna Valley Oil Field

Prepared by Cannon Associates

July 6, 2009

Structural Evaluation: Huasna Bridge

Prepared by Lampman & Smith

June 23, 2009

Air Quality Impact Analysis, Excelaron LLC Huasna Valley Oil Exploration Project

Prepared by Golder Associates, Inc.

July 2009

Geologic Hazards Report, Excelaron Conditional Use Permit, Huasna Valley San Luis Obispo County, California

Prepared by Earth Systems Pacific

July 2, 2009

Water Resources Studies for the Proposed Huasna Oil Field Project, Huasna Valley, California

Prepared by Cleath-Harris Geologists, Inc.

July 21, 2009

Noise Analysis Excelaron Oil Project, Huasna Valley

Prepared by David Dubbink Associates

June 10, 2009

Williamson Act Review Exhibit

