

February 19, 2009

Ellen Carroll, Environmental Division
Department of Planning and Building
County Government Center
San Luis Obispo, CA 93408

Re: Request for Review of a Proposed Mitigated Negative Declaration
Environmental Determination No. ED07-311, dated February 5, 2009
Excelaron/Mankins Conditional Use Permit DRC2006-00222

Dear Ellen,

The Huasna Valley Association is filing this Request for Review of the Proposed Mitigated Negative Declaration (MND) on behalf of the many South County residents, who have expressed concern and submitted testimony to the SLO County Planning Department regarding the proposed project and its potential significant impacts on the resources of the area.

The evidence in the record indicates that the project applicant, Excelaron LLC, has misrepresented the scope and technical aspects of this project to the County and associated agencies in an attempt to gain entitlements in a piecemeal fashion. These misrepresentations have significantly hampered the County and the responsible and trustee agencies' environmental review of the project and have rendered the MND and Initial Study inadequate.

Moreover, the evidence in the record, as well as the expert analysis of the project by our retained consultants shows that instead of an MND, the County must prepare an Environmental Impact Report (EIR). California Public Resources Code, Section 21080(d), states, "if there is substantial evidence, in light of the whole record before the lead agency, that the project may have a significant effect on the environment, an EIR shall be prepared." CEQA requires a lead agency to prepare an EIR whenever substantial evidence in the light of the entire record supports a "fair argument" that a proposed project may have a significant adverse impact on the environment. Sundstrom v. County of Mendocino (1988) 202 Cal.App.3d 296. Based on the evidence in the record, it can be fairly argued that the proposed project may have significant adverse impacts to the environment and therefore the County must prepare an EIR to adequately review the project's environmental impacts.

We have highlighted below some of our specific concerns with the project.

Sincerely,

Ron Skinner, Coordinator
Huasna Valley Association
ron@huasnavalley.org

Executive Summary

Energy calculations based on the applicant's project description data show that this proposed energy resource development project may not result in a significant net energy gain for the United States and may result in a net energy loss. An analysis of the cash flow benefit to the County and Public has not been conducted. No consideration has been given to county-wide cumulative effects of expanded oil production or alternatives such as a pipeline for transportation of extracted oil and grid-based or renewable electric power.

This project is much too complex and has far too many unknown impacts to be approved using the Mitigated Negative Declaration CUP process. There are serious unanswered questions remaining regarding potential scope of the project and potential piecemeal approaches, disposal of produced water and other fluids, produced natural gas and other hazardous emissions, reuse of existing orphaned wells, and transport of hazardous materials on local unstable roadways.

The Mitigated Negative Declaration is defective, under the California Environmental Qualities Act (CEQA) for the following reasons:

- Inadequate, partial, or non-existent analyses of impacts
- Analyses conducted with incomplete, applicant-supplied data
- Conflicting statements in project description make analysis impossible
- Proposes mitigations that are infeasible or have un-analyzed significant impacts
- Concludes potential impacts will be mitigated without disclosing details of mitigations
- Defers identification of mitigation measures to other agencies and uncertain future dates
- Proposes studies of impacts, to be conducted post-approval, as mitigations
- Developer's Statement lacks legally-binding language, performance standards or schedules for implementation for proposed mitigations
- Economic arguments are used in regards to mitigations without any economic analysis

The evidence, analysis, and testimony in the record, including the comments and expert analysis presented here, support a "fair argument" that the proposed project, despite the inclusion of the proposed mitigation measures, may result in significant environmental impacts, especially pertaining to protection of the freshwater supply and air quality. Therefore, an Environmental Impact Report (EIR) must be prepared so that the County, the Community, and the State can review and critique the many real and potential impacts of this proposed project.

Preliminary Challenges

1) Project Description

A finite and complete project description is indispensable to an informative, legally adequate EIR. County of Inyo v. City of Los Angeles (1977) 71 Cal.App.3d. 185, 190. An inadequate and incomplete project description frustrates CEQA's purpose of public disclosure and informed decision-making and results in an EIR that fails to disclose all of the project's impacts. Santiago County Water District v. County of Orange (1981) 118 Cal.App.3d. 818, 829. As one court put it, "an accurate project description is necessary for intelligent evaluation of the potential environmental effects of a proposed activity." San Joaquin Raptor Rescue Center v. County of Merced (2007) 27 Cal.App. 4th 713, 730.

The project description is suspect and misleading. For example, based on the project description supplied by the applicant, the MND claims that hot water injection into the well casing will be adequate for extraction of oil and that neither diluents nor steam will be used. But the evidence in the record shows that the viscosity of oil in the Huasna Oilfield is such that steam and diluents have historically been required for production enhancement of oil extraction. Despite the MND's claim that no diluents will be used, the process flow diagram shows a blend oil tank that appears to be used for injection of diluent - in this case presumably a light crude oil that will be trucked in to the site.¹ Steam is required due to the phase change energy transfer that can be applied to the reservoir and the ability for the steam to migrate quickly into the oil-bearing formation before cooling to a point of not being effective

The Arroyo Grande Field, operating in neighboring Price Canyon since 1950, contains less viscous oil (11-15 API gravity) than the Huasna Field (8-10 API gravity) and yet still requires the use of thermal enhanced oil recovery techniques. Each well is surrounded by, typically, five steam injection wells. Waste methane from the Cold Canyon Landfill is burned to produce steam for the extraction. If steam were required to extract the more viscous oil from the Huasna Field, this project would require much more energy than is currently proposed and disclosed in the MND. This increase in energy would come from an increase in propane use, resulting in more air emissions and more truck traffic on Huasna Road than is currently being considered in order to haul the needed extra propane.

The project description presents inaccurate projections that appear to be intended to minimize project impacts and the apparent size of the project. As explained above, the project's propane demand has been underestimated and traffic required for transport of crude oil has been overestimated. Significantly, despite the claim that the project will consist of "only four wells," the applicant has publicly stated their intention to develop a much larger project.

An adequate project description must include all relevant aspects of a project, including not only those aspects put forth by the project applicant, but also reasonably foreseeable future expansions or other related activities. Laurel Heights Improvement Ass'n v. Regents of the University of California (1988) 47 Cal.3d 376 ("Laurel Heights"). The project description must include an analysis of the environmental effects of future expansion of the project if "(1) it is a

reasonably foreseeable consequence of the initial project; and (2) the future expansion or action will be significant in that it will likely change the scope or nature of the initial project or its environmental effects.” *Id.*, at 396. Based on the evidence and an analysis presented in a letter dated 2/19/09 to the County from our attorney (see Exhibit 6), we contend that the County in this instance must analyze the likely future expansion of this project by preparing an EIR.

The throughput of the four proposed wells, as estimated by the applicant, is not consistent with the historical production of oil in the Huasna Oilfield. The average production of the four historically producing wells in the project site (Lavoie-Hadley area) was approximately 13.5 barrels per day.² John Zuelberti, Department of Oil, Gas, and Geothermal Resources, said of the project site, "Standard spacing of wells in the Santa Maria area is 2.5 to 10 acres...it is reasonable to assume that if the field developed at 2.5 acre spacing, without adding further acreage (beyond the proposed 160 acres) that 64 wells might be drilled."³

The oil haul truck traffic requested by the applicant, 12 trucks per day at 2800 gallons per truck, would be capable of hauling 800 barrels of oil per day. Four wells, producing at the historical rate of 13.5 barrels per day would not even fill a single truck each day. It would take 60 wells, producing at historical rates, to fill the haul trucks requested for this project. We therefore conclude that the applicant intends to drill much more than the four wells to be permitted in this application.

The project description underestimates the anticipated amount of produced water. The applicant has assumed a 47% water cut, which means that 47% of the fluid extracted is produced water (63,000 gallon throughput of oil/water with 33,600 gallons of oil trucked offsite per day). Given the historic water cut in the Huasna Oilfield (as high as 99.7% - 300 barrels of water per barrel of oil), the water cut in the Arroyo Grande field in nearby Price Canyon (93%), and even the average water cut in all oilfields in California (83%), it is unlikely that this project will achieve their estimated water cut of 47%.

The operator of the Arroyo Grande field is challenged with removing produced water from the field, and has drilled additional water disposal wells to handle some of the additional produced water.⁴ The operator is proposing a filtration system that will dispose of excess produced water into Pismo Creek, and an EIR is currently being prepared.

The MND's project description does not include a description of the water processing facilities that will be required in the separation, heating, and re-injection of produced water. Such facilities will have associated emissions along with solid and liquid hazardous wastes (see Hazardous Materials). The MND fails to disclose these emissions and byproducts or assess the environmental impacts of their disposal.

There is no mention of the use of hydraulic fracturing or acidizing as methods of stimulating the oil-bearing formation during drilling. "Hydraulic Fracturing is a common technique used to stimulate the production of oil and natural gas. Typically fluids are injected underground at high pressures, the formations fracture, and the oil or gas flows more freely out of the formation. According to the Interstate Oil and Gas Compact Commission, 90 percent of all oil and gas wells in the U.S. undergo fracturing to stimulate production."⁵

Some of the chemicals that are used during drilling and hydraulic fracturing are hazardous materials and known carcinogens that could irrevocably contaminate groundwater resources.⁶ According to an EPA study, and studies conducted by the oil and gas industry, between 20 and 40 percent of hydraulic fracturing fluids may remain in the formation.⁷ "The U.S. EPA does not currently regulate the injection of hydraulic fracturing fluids under the Safe Drinking Water Act. The oil and gas industry is the only industry in America that is allowed by EPA to inject hazardous materials - unchecked - directly into or adjacent to underground drinking water supplies.⁸ The MND fails to disclose what type of hydraulic fracturing fluids will be used in this project, or the environmental hazards posed by their use in connection with the proposed project.

Best practices do exist for hydraulic fracturing and should be required as mitigation measures for this project. They include hydraulic fracturing using only sand and water without any additives (best) or non-toxic additives as an alternative. Diesel fuel should not be used as a hydraulic fracturing fluid and recovered hydraulic fracturing fluids should be stored in above ground tanks and disposed of off-site rather than in surface pits. Acidizing should not be used as it can corrode well casings, causing oil and produced water to mix with freshwaters.

The MND's analysis is based upon inaccurate and unreliable acoustic, traffic, and air emissions studies provided by the applicant. On page 4 the MND appears to rely on construction details obtained from the 1980 Lorena Project Environmental Impact Report without any analysis or explanation of why it may be appropriate to rely on such an outdated document. Moreover, the MND must make it explicitly clear whether it purports to "tier" on the 1980 Lorena Project EIR.

Without any explanation, the most current iteration of the MND changed the proposed destination for the produced oil from a fuel upgrade refinery 15 miles from the project site to an asphalt refinery 100 miles away. To make matters worse, the MND does not identify the dirt roads that are intended to service the project site from Huasna Townsite Road. The description of the type, size, and frequency of construction traffic vehicles has been unstable and fluctuating, making the project difficult to evaluate. Engineering calculations for the retrofit of the Huasna River Bridge are lacking, as well as any mention of seismic upgrading of the bridge. Project traffic, including massive oil hauling trucks, will traverse seven miles of potentially unstable dirt roads across private lands, yet no plan and profile or grading plan has been submitted for any evaluation of potential environmental impacts. This absence of disclosure has also made calculation of project related PM₁₀ emissions impossible.

The MND's proposed condition of approval requiring the applicant to shut down operations whenever the haul route road is deemed impassible appears to be infeasible, as the oil storage stock tanks and pipelines must be continuously heated in order to keep the thick oil flowing. Such economic pressures might give rise to poor decision-making regarding road conditions, resulting in accidents and/or spills. The MND must include an analysis of the impacts of complying with this condition to assess whether its implementation is feasible. CEQA Guidelines § 15126.4(a)(1).

Conclusion Regarding MND's Project Description

The project description presents inadequate data that understate the project's size, impacts and cumulative effects. Because the project's description has been unstable and fluctuating, evaluating its impacts has been difficult and has resulted in a waste of San Luis Obispo County, other agencies and the public's resources. Based on the available data, it appears that the technical feasibility of the project is questionable. Many serious questions remain unanswered regarding potential scope of the project, technical feasibility of the proposed extraction techniques, treatment and disposal of produced water and other fluids, engineering of the Huasna River bridge and seven miles of potentially unstable dirt access roads, and the economic feasibility of shutting down operations due to an impassible road. These and many other issues need to be addressed through a full EIR process. The County, the Community, and the State all need to be able to review and critique the many real and potential impacts of this proposed project.

2) Project Applicants

The project description and environmental analysis to date centers around parcels 085-271-004 and 085-271-001. Neither of these parcels touch a county round and are only accessed by private easement across multiple parcels, none of which are considered to be part of the scope of the project, despite reliance on these private easements for transportation of equipment, employees, and crude oil. The project revision that changed the haul route constituted an expansion of the project and should require a full review of the revision.

The landowners providing easements and receiving payments for such easements should be listed as applicants on the project application and should sign the Developer's Statement as project applicants. In addition, any easement agreements should become project documents subject to the environmental review and permitting processes. The details of the agreements, especially the length of the contracts, the assumed liability in the case of accidents, the responsibility for determination of a "passable" road, and the agreement for maintenance of the roads should be fully disclosed as part of the project description.

The MND is lacking in appropriate documentation for the upgrading roadwork on the private roads along the haul route. These roads do not fall under any agricultural exemptions, as they will service an industrial facility. Inadequate data for these road improvements have hampered air quality calculations and evaluation of project impacts on biological resources and surface water. The MND does not include any grading plans or other description to permit adequate evaluation in the MND. These private roads will likely require a minor use permit, which must be evaluated and processed in conjunction with the Excelaron/Mankins/et. al. Conditional Use Permit. The project must be revised to include detailed analysis of the impacts of the construction needed on the haul roads to transport oil from the project. City of Santee v. County of San Diego (1989) 214 Cal.App.3d 1438, 1450.

Conclusion Regarding Project Applicants

Analysis of the project requires consideration of additional applicants and land parcels that are an integral part of the proposed project and may have significant environmental impacts, which must be assessed.

3) Williamson Act Review

Table 2 of the Agricultural Preserve Rules of Procedure lists compatible uses for lands subject to Williamson Act conservation contracts. While "Petroleum Extraction" can be a compatible use, subject to prior review and recommendations of the Review Committee, neither "Petroleum Refinery and Related Industries" or "Vehicle and Freight Terminals" are listed as compatible uses in Table 2. An industrial petroleum shipping and produced water treatment facility fails to meet the intention of the compatible use list for lands subject to Williamson Act conservation contracts.

The scope of the original project description has been so modified that the original review of Williamson Act issues by the Agricultural Review Committee is invalid. The project that the Agricultural Review Committee considered did not include miles of haul roads through agricultural lands under Williamson Act contracts. As revised, it is now apparent that oil haul routes required under the new project description will be located on several parcels of agricultural lands under Williamson Act conservation contracts. There is no evidence in the record to support the conclusion that these haul roads are compatible with ongoing agricultural operations on these parcels.

Conclusion Regarding Williamson Act Issues

Components of the project, including industrial petroleum shipping and produced water treatment facilities, are not among the uses that are compatible with lands subject to Williamson Act conservation contracts. Accordingly, the entire revised and fully disclosed project, including as applicants all private landowners providing easements for the transport of project vehicle traffic, should be returned to the Agricultural Review Committee for a revised review of Williamson Act issues.

4) Reliance on 1980 Lorena Project EIR

The Mitigated Negative Declaration appears to rely to some extent on assumptions, studies, and conclusions, of a 29 year-old Environmental Impact Report.⁹ It is the first document on the list of referenced materials in the Mitigated Negative Declaration. Much of the data supplied by the applicant (e.g. traffic, noise, and air quality) appears to be based on this 29 year-old document. The MND should adequately disclose the extent to which it relies or tiers on this stale and outdated document. We don't believe that reliance on this EIR is appropriate, but if the County insists on using this data, we believe the County should do so transparently and only after independent verification of the data by qualified experts.

Conclusion Regarding Reliance on 1980 Lorena Project EIR

Given the changes in technology, environmental law, and the community of Huasna Valley over the past 29 years, data from the 1980 Lorena Project Environmental Impact Report should not be considered valid.

Aesthetic Resources

The MND notes that the permanent new wells, well pumps and related structures will be visible from Huasna Townite Road and proposes two mitigation measures to address the resulting adverse environmental impact: make all structures as short as possible, and retain screening vegetations. Based on these mitigation measures, the MND concludes that the project's aesthetic impacts will be less than significant with mitigation.

This analysis is inadequate and does not constitute substantial evidence. The MND does not assess whether these mitigation measures are capable of reducing the project's impacts to less than significant. The MND makes no effort to evaluate whether after the implementation of these mitigation measures, the structures on the site would still be visible from Huasna Townite Road, much less from any of the many residences within visual lines of sight of the project site, and if so, if the resulting aesthetic impact is significant.

Moreover, the MND acknowledges that leakage of oil from equipment at the project site is an expected outcome, which could damage or kill established vegetation. The MND discusses such mitigation measures as regular monitoring and repairing any leaks, but fails to discuss whether even with these mitigation measures, loss of established screening vegetations, such as oak trees, is an expected outcome. Moreover, the MND fails to discuss whether the loss of vegetation and trees because of oil leaks would result in significant aesthetic impacts.

Conclusion Regarding Aesthetic Resources

Substantial evidence does not support a conclusion that the project's potentially significant aesthetic impacts can be reduced to less than significant. Therefore, impacts to Aesthetic Resources should be addressed through an Environmental Impact Report.

Agricultural Resources

Without any adequate analysis, the MND concludes that the project will not adversely impact the agricultural resources of the Huasna Valley, which include thousands of acres of hay cattle grazing lands, hay production, row crops, and wine grapes. The MND's analysis is incomplete, however, because it does not include an adequate analysis of the long-term viability of agricultural operations, not only on the project site, but on all parcels that may be impacted

by the project, including those agricultural lands that will be affected by the hauling route easements.

Agricultural operations may be affected by noise, dust, emissions, vibration and incompatible land use. Moreover, the project may also result in growth inducing impacts, which has not been considered or discussed in the MND. The County must require an agricultural viability study for all farmlands and agricultural operations that may be affected by the project. Any potential incompatibility with, or adverse impact on agricultural resources must be evaluated.

Conclusion Regarding Agricultural Resources

Substantial evidence does not exist in the record to support a conclusion that the project will not significantly impact Agricultural Resources. An agricultural viability study should be conducted within the context of an Environmental Impact Report.

Air Quality

The MND fails to adequately analyze the project's impacts on air quality. The MND relies on an air quality study that does not clearly include all of the project's potential air emissions, including asbestos, PM10, natural gas (by product of oil production) and those emissions associated with the operation of diesel and propane powered machinery. Emissions calculations have been based on applicant-provided fuel consumption data for equipment with no basis or justification for the numbers. There are no obviously specified diesel fuel consumption figures provided in the air quality report. All potential air emissions should be accounted for in the MND. The applicant-provided data should be used as the basis for the air quality study, only after independent verification of the data by qualified experts.

As noted by the APCD, the MND does not include a list of all propane-powered equipment that the applicant proposes to use on site. Nor does the MND include an estimate of the number of days the proposed wells will be in production. Accordingly, it is impossible to accurately determine the project's expected fuel use. Moreover, the MND does not include an explanation for the total emissions associated with the loading, unloading and transit of crude oil.

As pointed out by APCD the MND fails to adequately address the capture, handling, and disposal of natural gas, the production of which is virtually certain (See Exhibit 1). The MND states that large quantities of such gas are not expected, without providing a basis for this speculation. In order to adequately assess the project's air quality impacts, the MND must include a forecast of the quantity and composition of natural gas that will be encountered and how that gas will be captured, handled and disposed of, in a manner that minimizes hazards and waste. To the extent that the applicant will burn this gas on site, it must explain the emissions that are likely to result, and add such emissions to the air quality calculations.

The applicant has stated that "[w]hile the basic proposed project has been defined a refinement of the preliminary design for the production/operation stage will be determined based upon the results of the exploration phase."¹⁰ The failure of the applicant (and the MND) to describe the project with sufficient specificity has made adequate analysis of the project's impact on air quality impossible. Dry Creek Coalition v. County of Tulare (1999) 70 Cal.App.4th 20 (Project description must include sufficient detail to enable decision makers and the public to understand the environmental impacts of the proposed project.)

1) Fugitive Dust (PM₁₀)

As noted by the APCD in their comments to the County, it appears that the Air Study fails to account for all the PM₁₀ operational emissions associated with hauling production oil on unpaved surfaces. To adequately quantify the project's PM₁₀ emissions, the County must disclose total length of the unpaved private roads that will be utilized for transporting oil from the project and set some minimum standards for road conditions. Only then can the County calculate overall PM₁₀ that may be associated with transportation of oil from the project.

Both the MND and the Developer's Statement contain conflicting statements as to whether water, soil binders, or pavement will be used to mitigate Fugitive Dust (PM₁₀). Without a commitment in the MND to any one specific method (or a specific combination of methods) it is impossible to assess the effectiveness, feasibility and potential impacts of proposed mitigation measures. Thus it can be fairly argued that the project will result in significant adverse environmental impacts to air quality.

2) Naturally-Occurring Asbestos

The MND admits that because the project site may contain serpentine rocks, the project could be a potential source of airborne asbestos, a known air toxin. Airborne asbestos will result in a significant air quality impact. Rather than address this potential source of air contamination by surveying the project site in order to determine if implementation of the project could result in airborne asbestos, the MND defers all such surveys until after project approval. Adequate review of the project's impact and the adequacy of the MND is impossible without information about the presence of asbestos sources onsite.

Without disclosing the details of the proposed mitigation plan to control asbestos emissions, or discussing its effectiveness, the MND simply concludes that the potential impact will be mitigated to a less than significant level. This approach violates some of the most basic requirements of CEQA. Sundstrom v. County of Mendocino (1988) 202 Cal.App.3d 296.

3) Potentially hazardous emissions

The MND fails to discuss or analyze Potentially Hazardous Emissions. Only in the Developer's Statement do mitigations appear regarding hydrogen sulfide and organic sulfides, but no mention is made of other hazardous gases, including radon or other Naturally Occurring Radioactive Materials (NORM). Radon, a radioactive gas implicated in 21,000 lung cancer deaths each year in the United States, is formed by the decay of small amounts of uranium and thorium naturally present in rock and soil, and is associated with the oil-bearing Monterey Formation from which this project proposes to extract oil.¹¹

The MND leaves the determination of "Potentially Hazardous Emissions Areas" up to the applicant and a seemingly arbitrary limit of 825 ppm of hydrogen sulfide, specifies a monitoring plan that only applies to the applicant-determined areas, and then states that compliance will be verified, as appropriate, by the Environmental Monitor. Potentially Hazardous Emissions represent a significant impact to Air Quality and Health and Safety and the deferral of the identification of such potential emissions to the applicant does not allow for a determination that the impacts have been reduced to an insignificant level. Thus it can be fairly argued that the project will result in significant adverse environmental impacts to air quality.

4) Valley Fever

The MND admits that Coccidioidomycosis fungus (Valley Fever) may reside in the soil in the general area of the project. Rather than address this potential Health and Safety issue and source of air contamination by sampling soil at the project site and along access roads in order to determine if implementation of the project could result in airborne Coccidioidomycosis fungus spores, the MND defers all such soil sampling until after project approval and then only at the project site. Adequate review of the project's impact and the adequacy of the MND is impossible without information about the presence of Coccidioidomycosis fungus (Valley Fever) on the project site and along the access roads.

Without disclosing the details of the proposed mitigation plan to control emission of Coccidioidomycosis fungus spores, or discussing its effectiveness, the MND simply concludes that the potential impact will be mitigated to a less than significant level. Once again, this approach violates some of the most basic requirements of CEQA. Sundstrom v. County of Mendocino (1988) 202 Cal.App.3d 296.

5) Odors

Despite admitting that the project could cause in nuisance odor, the MND fails to analyze this potentially significant impact. The County and members of the public are unable to adequately analyze the project's overall potential impacts unless the MND adequately considers whether the project is likely to cause nuisance odor, and recommend adequate mitigation measures.

Without disclosing the details of the proposed Odor Control Plan, or discussing its effectiveness, the MND simply concludes that the potential impact will be mitigated to a less than significant level. Again, this approach violates some of the most basic requirements of CEQA. Sundstrom v. County of Mendocino (1988) 202 Cal.App.3d 296.

6) Hydrocarbon-Contaminated Soils

The MND acknowledges that the previous oil well testing efforts may have resulted in hydrocarbon-contaminated soils, but then improperly defers the identification of said contaminated soils to the applicant and fails to specify a comprehensive plan for remediation of contaminated areas. The proposed mitigations for hydrocarbon-contaminated soils address the short-term reduction of emissions from hydrocarbon-contaminated soils, but fail to address the long-term emission reductions of removal, remediation, and disposal. The MND also fails to address emissions from the on-site oil seep.

7) Green House Gasses (GHG)

The MND fails to adequately analyze the projects Green House Gas (GHG) emission or to propose adequate mitigation to reduce the project's contribution to global climate change. The County must quantify the project's GHG emissions and evaluate the significance of the project's impact on global warming after mitigation. Moreover, the County must evaluate whether the project would be consistent with the State's stated goal of reducing GHG emissions to 1990 levels by 2020.

The MND does not include a good faith attempt to quantify the project's GHG emissions. Moreover, the MND does not propose adequate mitigation measures to reduce the project's GHG emissions. The three mitigation measures that are supposed to address the project's GHG emissions are (1) the use of double haul trucks, (2) the use of 2007 or newer haul trucks, and (3) the use of closer refineries. The first two suggested measures are not mandatory, as the applicant is required to comply only "where feasible." The applicant has already indicated that these mitigation measures are infeasible: "Excelaron does not have control over the age of the oil tanker truck to be used by its vendors, and while it will request newer equipment be used, it cannot depend on same for mitigation purposes. In addition, the use of double-haul trucks is not recommended due to the weight limitations of the Huasna River Bridge and tight-radius curves of the farm access roads."⁴ The MND and Developer's Statement must therefore be revised to exclude these infeasible proposed mitigation measures.

The MND's proposed use of closer refineries as a mitigation is impermissibly vague and inadequately analyzed. As it is, the applicant has revised the project to deliver oil 100 miles away in Oxnard. To comply with the mitigation measure, the applicant should be required to deliver to a San Luis Obispo County refinery (Conoco-Phillips) if it is environmentally and economically feasible. The MND must include an analysis of the impacts of complying with this condition to assess whether its implementation is feasible. CEQA Guidelines § 15126.4(a)(1).

While the MND's suggestion that a single low flush toilet will reduce GHG emissions for this industrial project may provide a laugh in an otherwise dry document, it points to the complete failure of the MND to address and mitigate this project's significant GHG emissions. There is no mention in the MND of pipeline and tank insulation, suggested by APCD, or flue gas recirculation that would reduce consumption of propane heating fuel, thereby reducing combustion emissions and propane delivery traffic, and thereby reduce emissions of GHG. Moreover, transporting oil through a pipeline, as recommended by the San Luis Obispo County Air Pollution Control District, Huasna Valley Association, City of Arroyo Grande, and County of Santa Barbara, should be thoroughly investigated as an alternative to truck transport with its associated significant impacts on emissions, dust, traffic, noise, and energy use. To reduce the project's GHG emissions, the County should also consider requiring the project to use a combination of on-site generated solar electricity in conjunction with grid-based electrical power as an alternative to propane-generated electricity, which has significant impacts on emissions, traffic, noise, and energy use.

Conclusion Regarding Air Quality

As noted by the APCD, it appears that project emissions exceed APCD thresholds of significance. Given that the effectiveness of the proposed mitigation measures are not analyzed or analyzable, it can be fairly argued that the project will result in significant adverse environmental impacts to Air Quality. Impacts to air quality should be analyzed within the context of an EIR, as suggested on several occasions by APCD, using a complete set of data that has been independently verified by qualified experts.

Biological Resources (See Exhibit 2)

As noted by Mr. Gordon Hensley, of the Environment in the Public Interest (EPI), the MND's conclusions and analysis relative to the project's impact on biological resources are not based on adequate surveys. The MND therefore cannot and does not adequately disclose the project's potential impacts on biological impacts, including federally protected red-legged frog. Absence of species cannot be assumed and abundance and distribution studies for the sensitive vegetation, wildlife, and habitat should be conducted within the context of an EIR.

The MND defers the identification of impacts to the sensitive vegetation, wildlife, and habitat identified in the Initial Study until "pre-construction surveys" are completed and leaves the identification of mitigation measures to other trustee agencies and/or consultants until after the project has already been approved. This is not consistent with the intent of the California Environmental Quality Act (CEQA) as a negative declaration cannot be based on the presumed success of mitigation measures not formulated at the time of approval of the project and renders the MND deficient (see CEQA Guidelines 15126.4 (a)(1)(B); Sundstrom v. County of Mendocino (1988) 202 Cal.App.3d. 296; Gentry v. City of Murrietta (1995) Cal. App.4th 1359; Endangered Habitat League, Inc. v. County of Orange (2005) 131 Cal. App.4th 777).

The MND acknowledges that the project may result in the removal of Well's Manzanita, a protected plant species, but does not require thorough surveys or adequate mitigation measures. In particular, the MND explains that if Well's Manzanita are found in pre-construction surveys, the county would hire a "qualified person" to draft a Well's Manzanita relocation plan.

The MND concludes that the impact on this species would be reduced to less than significant because individual plants that are encountered in the course of the construction can be relocated to a different location. The MND does not contain an adequate description of this mitigation measure, or an analysis of the degree to which it can be expected to effectively mitigate the impact on the Manzanita. In particular, the MND fails to discuss whether Well's Manzanita is a plant that can be successfully relocated. The proposed mitigation measure is also defective in that (1) it does not explain why a detailed mitigation measure may not be formulated prior to project approval, and (2) it does not include any specific performance standard for this proposed mitigation measure. See, Sundstrom v. County of Mendocino supra; San Joaquin Raptor Rescue Center v. County of Merced (2007) 149 Cal.App.4th 645, 670.

The MND admits that the project could potentially increase the amount of stormwater escaping the site, which could in turn cause increased sedimentation and erosion. Any increase in sedimentation or erosion, particularly if associated with oil operations, could result in significant adverse impacts on surface waters and associated biological resources. Spillage of toxic substances, including crude oil and related substances could also cause significant adverse biological impacts. The MND does not adequately analyze these potential impacts or discuss the level of impact that can be expected with the implementation of mitigation measures.

Although the MND identifies three blue line stream crossings it fails to propose any mitigation measures to avoid impacts

Conclusion Regarding Biological Resources

The MND defers the identification of impacts and mitigations to the sensitive vegetation, wildlife, and habitat, and streams and surface waters to future studies, which does not allow for a determination that the impacts have been reduced to a less than significant level. Thus it can be fairly argued that the project will result in significant adverse environmental impacts to Biological Resources.

Bonding

According to the San Luis Obispo County Land Use Ordinance [Section 22.34.040 Oil and Gas Well Development Standards part A.3 Bonding - Increase in Bond Amount], bond amounts may be increased by the director when justified by particular circumstances. In this case there is some question as to the financial capabilities of the operator, Excelaron LLC.

In a statement dated February 17, 2009, Australian Oil Company Limited announced the sale of a 40% interest in the Excelaron LLC Huasna Oil Field Project to Toronto, Canada-based Mogul Energy, Inc. for US \$2.3 million. "This in addition to a prior farmout will bring the total amount expended to US \$3.3 million. It is anticipated that this funding will carry the project through leasing, permitting, the drilling of two production wells and the building of ancillary operating facilities." This statement demonstrates that Excelaron, LLC does not possess the funds to carry out their described project, much less pay for mitigations or cleanup from any spills of oil or other hazardous wastes.

To avoid any San Luis Obispo County taxpayer dollars being used to clean up oil or other hazardous wastes spilled from this project, the county should require bonding adequate to cover worst-case scenario spills for each piece of equipment that contains or transports hazardous materials, including all storage tanks, pipelines, baker tanks, water treatment tanks, and trucks.

The Santa Barbara County Board of Supervisors staff report of Jan 15, 2008 reported that during the five year period (2003-2007) over 500,000 gallons of oil were spilled in Santa Barbara County, at a cleanup cost to the county of almost \$2,000,000. Greka Energy Co. was responsible for 77% of the spills. The cleanup costs ranged from \$1.67 to \$3.34 per gallon of oil spilled. As an example, taking a worst-case scenario, the county should require the following bonding, to be applied to each tank, truck, pipeline, or well:

Tank failure (63,000 gallons @ \$3.34/gallon)	\$210,420	per tank
Truck accident (2800 gallons @ \$3.34/gallon)	\$8,352	per truck

In addition, the project applicant must provide evidence of umbrella liability coverage (amount TBD) for all vendors, subcontractors (construction, drilling, transport and others), agents and consultants, insuring to the benefit of the County of San Luis Obispo and the Public at large. A thorough legal review of this coverage should confirm that Excelaron, LLC. is responsible for its products and all hazardous materials from the time they are pumped to the surface until they are delivered to a destination refinery or waste facility.

Conclusion Regarding Bonding

Adequate bonding for environmental cleanup from spills of oil or other hazardous wastes, releases of hazardous gases, soil contamination, abandonment of wells, and full site remediation must be required. Proof of adequate liability insurance must be obtained.

Cultural Resources

The Porter Ranch House (1890) (H-3), which is located on private property within fifty feet of the proposed project vehicle traffic haul route, has a combining designation in the Huasna-Lopez Area Plan, revised Jan 2007. The proposed project must be reviewed and mitigations agreed to in order to avoid adverse environmental impacts on this historical special resource.

Conclusion Regarding Cultural Resources

The County must prepare a Cultural Resource Study for the Porter House (1890). Mitigations must be implemented to protect this historical resource from vibrations, emissions, noise, and fugitive dust from project traffic.

Developer's Statement

Several mitigations in the Developer's Statement contain the phrase, "The applicant, and successors-in-interest, agrees to..." These statements may be interpreted to suggest that the applicant has not agreed to all terms of the Development Agreement. To avoid this potential misconception, the preamble to the Agreement should include a statement that clarifies that the applicant has agreed and does agree to and that the applicant, and its successor-in interester will be bound by every term in the agreement. Moreover, every term in the Development Agreement must be made a condition of the project's approval. See, Woodward Park Homeowners Ass'n v. City of Fresno (2007) 150 Cal.App.4th 683, 730.

Pursuant to the requirements of CEQA all proposed mitigation measures (and terms of the Development Agreement) must be enforceable to ensure effective mitigation of the project's environmental impacts. PRC section 21081.6(b) ("(b) A public agency shall provide that measures to mitigate or avoid significant effects on the environment are fully enforceable through permit conditions, agreements, or other measures"); CEQA Guidelines 15126.4(a)(2). To the extent that the Development Agreement or proposed mitigation measures employ binding terms such as "may" and "should," these measures are not enforceable and therefore do not pass muster under CEQA. All such permissive terms must be replaced, as required by the California Environmental Quality Act (CEQA), with the legally binding words "will" and "shall" to ensure effective enforcement.

Conclusion Regarding Developer's Statement

The Developer's Statement must contain legally binding language for the project applicant and all successors-in-interest.

Economic Analysis

Economic analysis of mitigations or proposed mitigations must be conducted, as required by the California Environmental Quality Act (CEQA), in order to determine the economic feasibility of mitigations. The applicant has dismissed consideration of a pipeline for transport of crude oil, suggested by the San Luis Obispo County Air Pollution Control District, Huasna Valley Association, City of Arroyo Grande, and County of Santa Barbara as being economically infeasible, without providing substantial evidence through an comprehensive economic analysis. Such an analysis should include estimates of gross revenue based on the

applicant's assumptions (e.g. their claim to investors that the field contains 20 million barrels of oil - MND pg. 27).

Mitigations have been proposed that include payment of use fees, "fair share" fees, and offsite mitigation contributions. Since the economics of these mitigations is intended to mitigate environmental impacts, an analysis of the full cash flow benefits of this project should be conducted.

Conclusion Regarding Economic Analysis

Economic analysis must be used, as required by the California Environmental Quality Act (CEQA), in the determination of the feasibility of mitigations. Substantial evidence must be provided to support any claim that mitigation is uneconomically feasible. A full analysis of the cash flow benefits of the project must be conducted.

Geology/Soils (See Exhibit 1)

As explained by Dr. Robert Curry, Ph.D., the MND contains very little information on actual geological and soil hazards and potential mitigations. Some of the information and conclusions based thereupon is factually incorrect.

The MND fails to address safety issues associated with transport of the tanker-trucks of oil away from the production site on the Huasna Valley floor farm roads along the haul route, where liquefaction of the roadbed soils is likely. The Salinas Loam soil unit and the creekside alluvium of Huansa Creek itself, where the proposed haul route is now located, is very poorly drained and slow to percolate seasonal water and is frequently saturated with high local groundwater (USDA, 2008).

The MND fails to address the reduced rate of soil absorption in adjacent agricultural fields that may result from the transportation of soil binders from roads subject to saturation and/or flooding.

The MND fails to address the issue of exposure to earthquakes. It claims the project is not near an existing active fault and in the same sentence mentions that the Suey fault approximately 1/2 mile to the west is considered potentially capable. The MND fails to mention the East Huasna fault. In fact, the proposed project site lies near the convergence of the Suey, West Huasna, and East Huasna faults. A 1983 SEED report (Safety Evaluation of Existing Dams) by the Bureau of Reclamation indicated that "blind thrust faults capable of quakes of a 7.0 (Richter Scale) or more may exist near Twitchell Reservoir. This report resulted in seismic retrofitting of Twitchell Dam. Oil extraction and storage facilities and the Huasna River Bridge should be required to be retrofitted against damage from such an earthquake.

The MND admits that the project could potentially increase the amount of stormwater escaping the site, which could in turn cause increased sedimentation and erosion. Any increase in sedimentation or erosion, particularly if associated with oil operations, could result in

significant environmental impacts. Without disclosing the details of the proposed mitigation plans to control sedimentation and erosion, or discussing its effectiveness, the MND simply concludes that the potential impact will be mitigated to a less than significant level. Again, this approach violates some of the most basic requirements of CEQA. Sundstrom v. County of Mendocino (1988) 202 Cal.App.3d 296.

Conclusion Regarding Geology and Soils

Substantial evidence does not exist in the record to support a conclusion that the project will not significantly impact soils or be consistent with the goals of the County's Safety Element relating to seismic hazards. The MND improperly defers analysis of soil impacts and mitigations to future studies, which does not allow for a determination that the impacts have been reduced to a less than significant level. Thus it can be fairly argued that the project will result in significant adverse environmental impacts to Soil Resources.

Hazardous Materials and Wastes

The MND acknowledges that the project does propose use of hazardous materials and has a risk of release of hazardous materials, leakage of oil, and explosion and fire. It fails, however, to discuss or analyze any of the materials or potential risks and merely defers the preparation of management and safety plans to uncertain future dates and trustee agencies. The significant impacts to human and environmental health and safety from potential release of hazardous materials, explosion, or fire have not been mitigated. The MND simply concludes that the potential impacts will be mitigated to a less than significant level. This approach violates some of the most basic requirements of CEQA. Sundstrom v. County of Mendocino (1988) 202 Cal.App.3d 296.

1) Water Treatment Facility

The MND claims: "Operation of the proposed water treatment facility does not propose to use the common oil processing hazardous-containing chemicals which could otherwise potentially impact a given site. No hazardous wastes are anticipated to be generated from this proposed project activity." What the applicant proposes and anticipates is simply not true as the excess produced water extracted with the oil is highly contaminated and must be treated prior to heating and re-injection or disposal. Once again, the failure of the applicant (and the MND) to describe the project with sufficient specificity has made adequate analysis of the project's impacts due to hazardous materials impossible. Dry Creek Coalition v. County of Tulare (1999) 70

"Impurities in excess produced water include: high concentrations of salt; suspended and dissolved hydrocarbons, formation solids, hydrogen sulfide, carbon dioxide, and a deficiency of oxygen; dissolved solids and heavy metals, such as calcium, magnesium, potassium, barium, chromium, strontium, radium, lead, arsenic, manganese, iron, and antimony; additives such as coagulants to assist the separation of oil and solids from water, corrosion inhibitors, emulsion

breakers, biocides, dispersants, paraffin-control agents, and scale inhibitors; chemicals including acids, oxygen scavengers, surfactants, friction reducers, and scale solvers; heavy minerals such as boron (sic?) and chromium; and radionuclides such as uranium, radon, and radium."¹² Any of these impurities may contaminate the liquid and solid wastes resulting from treatment and processing of the produced water

Naturally Occurring Radioactive Materials (NORM) may be present in oilfield solid or liquid wastes.¹³ The U.S. EPA estimates that 30% of producing oilfields in the United States have enough NORM to warrant health and environmental concerns.¹⁴ The primary carrier of the NORM is the produced water from the reservoir. When the produced water is brought to the surface, the changes in temperature, pressure, and salinity cause a scale to form.¹⁵ Often, high concentrations of oil-and-gas-related NORM are associated with separator tanks, water storage tanks, and water lines where brine scale and tank sludge accumulate.¹⁶ The handling of these contaminated wastes has not been addressed in the project description or MND.

Despite the MND's statement that no diluents will be used, the process flow diagram shows a blend oil tank that appears to be used for injection of diluent - in this case presumably a light crude oil that will be trucked in to the site. There are many unanswered questions regarding this use of diluent: how much diluent will be used, will it be separated from the extracted oil/water/diluent mix and be re-used, how will the diluent be transported to the site, have tank emissions been accounted for from the blend oil tank, and have all emissions aspects of the use of this diluent been properly evaluated?

The MND fails to answer many questions regarding the presence of hazardous material, including: Will the toxic emissions from the facility trigger Toxics New Source Review and Toxics BACT? Is there a need to run air toxics Health Risk Assessment? Will the crude oil tank bottoms pass the CAM (California hazardous waste) test, including the aquatic toxicity test? How will the brine waste, result from the water treatment operation be disposed of? Where will it be stored? Will it be hauled offsite or reinjected? How will the blowdown from the heaters be handled? How will wastes from tank cleaning be handled? How will incidental hazardous wastes be handled, including lube oil from pumps, wastewater filters, oily rags, contaminated sample containers, etc? Will small pits and sumps be used to collect drips and drains? How will these pits be constructed to prevent leaks? Will the truck loading rack be equipped with an impervious collection system? Will the loading rack have automatic shutoffs? How will the product remaining in the loading hoses be handled? Will the production piping be properly supported and seismically retrofitted? What chemicals will be used for oil and water treatment - emulsion breakers, scale inhibitors, biocides, etc.? Where and how will the treatment chemicals be stored? Will they have a "cut shack" onsite for testing oil/water ratios? How will the waste samples be handled?

2) Risk of Fire and Explosion

The MND recognizes the increased fire hazard risk associated with the project and the excessive response time by CalFire, but fails to propose mitigations that reduce the impact to less than significant levels. The MND fails to recognize the increased risk of explosion due to

petroleum extraction or the location of a 10,000 gallon propane tank in a steep, heavily-wooded, high fire hazard area. Once again, the MND defers preparation of an emergency response plan, as a mitigation measure, to a later date. Reliable communications and emergency notification systems along with an evacuation plan and siren would be more appropriate measures to mitigate the threat of released hazardous materials, explosion, or fire to human health and safety. (See Public Services - Fire for additional comments)

3) Oil Storage and Distribution

The MND admits that the project could result in spillage of crude oil and oily water, but fails to assess the significance of this risk. The MND makes no effort to assess the likelihood that spills will occur, or the potential environmental impacts of any such spills. The MND does not include a detailed emergency response plan to deal with any potential spills, thereby making it impossible to assess its effectiveness.

The MND defers preparation of a Spill Prevention Countermeasure Control Plan, as a mitigation measure, to a later date. It fails to recognize the potential for liquefaction along the proposed haul route (See Geology and Soils) or the economic infeasibility of temporarily shutting down operations when the roads are un-passable. The use of the haul road during times of soil saturation may result in truck accidents and oil spills.

While the MND states it is the applicant's responsibility to pay for any cleanup of spilled oil or other hazardous materials, it fails to propose adequate bonding as a mitigation measure to cover potential cleanup costs (See Bonding).

4) Natural Gas

The MND vaguely states that not very much natural gas will be produced and no gas flares are expected. Production of natural gas is probable (See Exhibit 1) and the analysis of its impacts in the MND is poor. Furthermore, the MND has not properly assessed the impacts of potential gas flaring on air quality.

Conclusion Regarding Hazardous Materials

The MND merely defers the preparation of management and safety plans, as mitigation measures, to uncertain future dates and trustee agencies and concludes that the potential impacts will be mitigated to a less than significant level. In the absence of substantial evidence that impacts can be mitigated to less than significant levels, it can be fairly argued that the project will result in significant adverse environmental impacts due to hazardous materials.

Land Use

The MND fails to identify inconsistencies with the San Luis Obispo County Land Use Ordinance. The chapter on Petroleum Resource Development (Ch. 22.34). Section 22.34.010 Purpose states, "The fresh water supply must be fully protected from pollution by petroleum operations." (Ord. 2892 § 1 (part), 2002). The MND fails to provide adequate information on actual hydrological hazards and potential mitigations. Some of the information and conclusions based thereupon is factually incorrect. The freshwater supply has not been protected. (See Water and Exhibit 1).

The MND's claims that any additional wells beyond those permitted in the CUP will require an amended CUP is not consistent with the Drilling Permit Requirements section of the San Luis Obispo County Land Use Element, Section 22.34.030 Part B2 Production Well Permit, which states, "Minor use permit approval is required where an additional well is proposed in an existing designated field." Once the field has been "reopened" under the CUP additional wells can be drilled, according to the Land Use Element, with a minor use permit, which does not require environmental review or public comment.

Conclusion Regarding Land Use

The MND is inconsistent with the County's Land Use Ordinance because it fails to fully protect the fresh water supply from pollution by petroleum operations.

Mandatory Findings of Significance

1) Degradation of the quality of the environment

The MND defers the identification of impacts to the environment until "pre-construction surveys" are completed and leaves the identification of mitigation measures to other trustee agencies and/or consultants until after the project has already been approved. This is not consistent with the intent of the California Environmental Quality Act (CEQA) as a negative declaration cannot be based on the presumed success of mitigation measures not formulated at the time of approval of the project and renders the MND deficient (see CEQA Guidelines 15126.4 (a)(1)(B); Sundstrom v. County of Mendocino (1988) 202 Cal.App.3d. 296; Gentry v. City of Murrietta (1995) Cal. App.4th 1359; Endangered Habitat League, Inc. v. County of Orange (2005) 131 Cal. App.4th 777).

Conclusion Regarding Degradation of the Environment

The MND has not presented substantial evidence that the quality of the environment will not be degraded. Therefore, a fair argument can be made that impacts on the quality of the environment will be significant and an EIR is required.

2) Cumulative effects

If the incremental effects of a proposed project are significant when considered with the effects of past, current, and foreseeable future projects, then the proposed project's effects are considered "cumulatively considerable." Public Resources Code § 21083, subd. (b)(2); CEQA Guidelines, §§ 15064, subd. (h)(1), 15065, subd. (a)(3). The cumulative impact analysis is one of the most essential elements of environmental review; its purpose is to prevent considering projects in a vacuum and to avoid a piecemeal approach to decision making. Whitman vs. Board of Supervisors (1979) 88 Cal.App.3d 397,408. San Joaquin Raptor I, supra, 27 Cal.App.4th at p. 720.

There is substantial evidence, presented below, that the applicant intends to develop future projects, which, combined with the proposed project, will have significant cumulative effects. Excelaron, LLC holds at least 1350 acres of mineral leaseholds in the Huasna Oilfield and has openly declared their intention to develop a large-scale oilfield.¹⁷ In addition, they have claimed to their investors their belief that the Huasna Oilfield contains 20 million barrels of oil (MND pg. 27).

Bruce and Richard Barbezat, the surface right owners of APN 085-231-002, a 130 acre parcel on the north end of the Huasna Oilfield, signed an Oil and Gas Lease with Excelaron, LLC. on July 11, 2008.¹⁸ They subsequently filed a lawsuit against twenty four Huasna and Tar Springs residents (and Does 1-200) on November 26, 2008, for a prescriptive easement to Huasna Road via Mary Hall Lane in Tar Springs ranch.¹⁹ Oil development on the Barbezat's property with an easement for transportation of oil to Huasna Road would allow development of the northern end of the Huasna Oilfield and a large portion of Excelaron, LLC.'s mineral leaseholds. Such future development would have significant cumulative effects when combined with the currently proposed project and would revive issues of transportation and road safety associated with transport of crude oil along Huasna Road and through the City of Arroyo Grande that the applicant has tacitly agreed to mitigate by using the southern haul route across the Porter Ranch to Highway 166.

There will be cumulative traffic impacts at the Highway 101/ State Route 166 south bound on-ramp with its non-standard merge distance with Highway 101 through lanes onto the Santa Maria Bridge. CalTrans has done an adequate analysis of the effects on Highway 101, SR 166 and the off and on ramps but does not address the effects on Thompson Avenue, Cuyama Lane and Hutton Road on both sides of Cuyama Lane. Currently during peak hours vehicles seeking to exit or enter the above roads are subject to increasingly longer delays. With the cumulative effects of the Diani Asphalt Plant, the Diamond Rock, Sand and Gravel Quarry, the proposed Santa Maria ethanol plant, and the proposed expansion of Conoco-Phillips refinery

these intersections could fail.²⁰ There will also be significant cumulative effects on Nipomo traffic if the suggested air quality mitigation to change the destination refinery results in oil trucks re-entering the county to go to the Conoco-Phillips refinery.

There will be cumulative effects due to the addition of pollutants to the project site on top of existing pollution from past oil projects. As hydrocarbon contaminated soils already exists on the project site, clean up and remediation should take place prior to any construction to reduce cumulative effects of past projects. In addition, there will be cumulative effects from more wells being added to the number of existing orphaned and potentially hazardous wells left from past projects. All orphaned wells on the project site should be properly plugged and abandoned prior to the drilling of any new wells to reduce cumulative effects of past projects.

There will be county-wide cumulative effects as other abandoned, marginal oilfields, such as the Upper Lopez Canyon Oilfield, are developed. There has been recent interest in mineral rights acquisition by a foreign oil company in the Upper Lopez Canyon area. Development of such fields will only be encouraged by the precedent, set by this project permit, to not require an EIR. The cumulative effect of the development of marginal oilfields in San Luis Obispo County will significantly impact the overall biology, traffic, air quality, noise, water, and economy of the county. Further future expansion of the oil industry in San Luis Obispo County will have a significant cumulative impact on the economic industries of San Luis Obispo County, namely tourism, housing, and agriculture.

Conclusion Regarding Cumulative Effects

The MND makes no effort to adequately identify, assess, or mitigate the cumulative effects of this project as required under the California Environmental Quality Act (CEQA).

3) Adverse effects on human beings

The MND inappropriately defers studies and mitigation to uncertain dates in the future. This is not consistent with the intent of the California Environmental Quality Act (CEQA) as a negative declaration cannot be based on the presumed success of mitigation measures not formulated at the time of approval of the project. In addition, the MND proposes to leave the identification of mitigation measures to other trustee agencies and/or consultants until after the project has already been approved.

Not all potentially adverse effects on human beings have been evaluated in an independent manner. Studies must be conducted regarding radon gas and other Naturally Occurring Radioactive Materials, H₂S gas, Naturally Occurring Asbestos, Valley Fever, effects of Fugitive dust (PM₁₀) generated along seven miles of dirt roads, and the physiological affects of noise increases greater than 3 db above background noise levels.

Conclusion Regarding Adverse Effects on Human Beings

The MND has not presented substantial evidence that adverse effects on human beings can be mitigated. Therefore, a fair argument can be made that impacts having adverse effects on human beings will be significant and an EIR is required.

Monitoring and Enforcement

The monitoring sections of the Developer's Statement do not adequately specify the frequency and scope of inspections and monitoring during the two phases of the project. There is no indication by what process a monitor will be selected, whether all monitoring costs are paid by the applicant, how performance is secured, and what penalties can be prescribed for various levels of violation of mitigation measures, particularly those related to health and safety violations. There is no reference to the level of non-compliance that will trigger permit revocation hearings.

A community liaison from the Huasna Valley Association should be appointed as a community monitor, in addition to the contracted Environmental Monitor, and should have access to all monitoring data and reports. A website should be paid for by the project proponent and managed by the Huasna Valley Association to post results of all inspections and monitoring data for access by the general public. Hardwired webcams at the well pad site, shipping facility, and access road, linked to the website, would provide assurance to the public at large that mitigations were being followed.

Conclusion Regarding Monitoring and Enforcement

The specifications for monitoring and enforcement of proposed mitigation measures are inadequate.

Noise (See Exhibit 3 and Exhibit 4)

The MND fails to adequately analyze the project's potential noise impacts. Residents of Huasna Valley have long cherished the valley for the quiet it affords them. The residents are also keenly aware that because noise travels much more readily in the valley, even relatively quiet noise can be a nuisance in that setting. The MND fails to take into account the area's extremely quiet setting (low ambient noise levels) and does not recognize that noise travels extremely long distances in Huasna Valley. The MND's use of the County noise threshold for this setting is contrary to the mandates of CEQA.

CEQA requires impact analysis to take into account the local setting and when the evidence presented to the agency shows that the impact may be significant despite the significance standard, the agency must address the evidence presented. Protect our Historic

Amador Waterways v. Amador Water Agency (2004) 116 Cal.App.4th 1099, 1111. The use of County standard in Huasna Valley is inappropriate.

Conclusion Regarding Noise

Note: Due to time constraints, Exhibit 3, Acoustic Review, is not available at the time of submittal of this document, but will be forwarded to the County as soon as possible.

Notice to Proceed

The MND is vague as to the timing of many important mitigation measures. Prior to proceeding with the Exploration/Testing phase all site remediation of existing hydrocarbon polluted soils and previous project equipment, debris, and wastes; roadwork, bridgework, and dust control; and fire and police safety mitigation measures must be completed and in place, including any improvements to public property, which must be made by San Luis Obispo County. Such timing of these mitigations is required in order for the mitigations to serve their purpose of reducing significant impacts to less than significant levels. Additionally, prior to completion of the Exploration/Testing phase, the applicant must be required to abandon, plug, and fully remediate any and all orphaned, idle, or unused wells on the project site land parcels.

Conclusion Regarding Notice to Proceed

The lack of specified schedules of implementation of mitigation measures in the MND makes it impossible to fully analyze the likely effectiveness of any mitigation measures to reduce impacts.

Other Alternatives

The California Environmental Quality Act (CEQA) requires that a "reasonable range" of alternatives to the project be considered. Goleta II, supra, 52 Cal.3d at p. 566; Public Resources Code, § 21100, subd. (b)(4).

The MND fails to adequately consider transportation of oil through a pipeline, as recommended by APCD, Huasna Valley Association, City of Arroyo Grande, and County of Santa Barbara, as an alternative to truck transport with its associated impacts on emissions, dust, traffic, noise, and energy use. The applicant has stated, "Pipeline installation would result in substantially greater construction impacts to multiple resource issue areas, including air quality, and is economically unfeasible for the quantity of oil anticipated to be produced."²¹

However, the MND states that Excelaron, LLC has estimated the oil reserves at 20 million barrels (pg. 27). Furthermore, the project expects to transport 800 barrels of oil per day,

365 days per year, for a twenty-year period (5.84 million barrels). At 60% of the current Texas Intermediate oil price of \$40.00 per barrel, the 20-year gross revenue of the project would be \$140 million dollars. This assumes no increase in the price of oil or throughput over the life of the project. Is a pipeline really economically unfeasible?

The MND fails to assess or require the use of grid-based and/or on-site renewable electrical power as an alternative to propane-generated electricity, which impacts emissions, traffic, noise, and energy use. Connection to the electric grid would have a community benefit of increased power reliability with the addition of an industrial facility power customer on the remote Huasna Valley power grid.

Conclusion Regarding Alternatives

The MND fails to consider alternatives to the project, including, but not limited to, a pipeline for transport of crude oil and the use of grid-based and/or on-site renewable electric power, as required under the California Environmental Quality Act (CEQA).

Population/Housing

1) Use of substantial amounts of fuel or energy

The MND state on page 39, "This project will require energy to extract, separate and transport the crude oil. Some of the energy used will be offset from the proposed extraction process (i.e. recovery and use of captured natural gas). Once processed, the crude oil will become a source of fuel for other uses.

Although the project will produce crude oil, which is a potential source of energy, the current destination for the crude oil is an asphalt refinery 100 miles away. This unexplained decision to change refinery destinations has a huge impact on the net energy usage of this project, since the crude oil will no longer be used as an energy source, but as a mineral resource. Either way, this project represents an energy/mineral resource that will be exported out of San Luis Obispo County.

The net energy balance of this project has been calculated using figures provided by the applicant in the project description and air quality reports (see Exhibit 5). Results of this calculation show that the project will only have a net positive energy balance under certain circumstances. The most important consideration in this calculation is the water cut of the extracted oil. These calculations show an energy break even at a water cut of 98.9%. Any water cut higher than 98.9% would result in a net energy loss for this project.

Given the historic water cut in the Huasna Oilfield (as high as 99.7% - 300 barrels of water per barrel of oil), the water cut in the Arroyo Grande field in nearby Price Canyon (93%), and even the average water cut in all oilfields in California (83%), it is unlikely that this project

will achieve their estimated water cut of 47%. A more reasonable water cut of 90-95% would produce a small net energy gain for the project, at the cost of many significant impacts to the environment.

Mitigations that could help to offset the minimal net positive/negative energy balance of this extraction of a non-renewable energy resource are the use of insulated tanks and pipelines and the installation of an onsite renewable energy source, in this case a large-scale solar array system designed to meet some or all of the 150 kw electrical needs of the facility. Both of these mitigations were recommended by the San Luis Obispo County Air Pollution Control District, but do not appear in the MND or the Developer's Statement. The installation of a solar array in conjunction with grid-based electric power would also reduce environmental impacts to emissions, noise, and traffic associated with propane-powered electric generation.

Conclusion Regarding Use of Substantial Fuel or Energy

The MND fails to analyze the substantial use of fuel and energy by this project. The fact that extracted oil may or may not be used as a fuel source should not overshadow the extreme uses of non-renewable fuel and energy proposed by this project. Our calculations show that this project will not result in a significant net energy gain for the United States and may result in a net energy loss. Keep in mind that these calculations are based upon the applicant provided fuel consumption data and do not take into account the extra energy use that would be required for steam injection. They also credit the energy content of the extracted crude oil as a fuel resource instead of as a mineral resource used for asphalt, which would result in a very large net energy loss.

Public Services

1) Fire Protection

The MND admits that the project is within an area that has been designated as “very high” fire risk area. This assessment is based on such factors as the remoteness of the area, the denseness of flammable vegetation, and the circulation patterns. The MND discloses that Cal Fire response time to the project site is 39 minutes or more, which according to the MND, means that it would be likely impossible to rescue any structures on fire. The secondary responder, Arroyo Grande Fire Department, may not have the resources to provide mutual aid. The MND goes on to explain that the applicant will be required to devise a fire response plan.

Despite all this information, the MND fails to assess the increased risk of fire posed by the proposed project. To properly analyze the project’s potential fire risk, the MND must include an objective assessment of the risk of accidental fire posed by all phases of the project, and all aspects of oil production, including extraction, transportation from the production site to the shipping site, storage and over-land transportation via truck tankers.

The MND has failed to address the capture, handling, and disposal of natural gas, the production of which is virtually certain. This is both a local facility hazard and a regional fire hazard. The mitigations specify no waste gas venting, but without an idea of the amount of gas present or contingency plans for handling excess gas, it is likely gases will be vented. (see Exhibit 1)

A Fire station should be constructed and a fire safety impact fee be developed as suggested by the City of Arroyo Grande. Such a fire station could serve the dual purpose of providing better protection to the Lopez area and the Los Padres National Forest.

The MND fails to recognize that a Fire/Emergency Plan requires a reliable communication system, which would allow reporting of fires, hazardous material spills, releases of hazardous gases, and medical or police emergencies at the project site or along the haul route. There is no reliable cellular phone reception in the Huasna Valley and hard-wired lines can be unreliable in storms. The best system would require redundancy. It should include hard-wired lines to the project site and either a redundant cellular system with multiple tower redundant coverage or a WiMAX system. Either wireless system should have redundant hardwired power or microwave feeds and provide coverage over the entire haul route. Such systems, which would improve communications to the remote Huasna Valley, would be a community benefit. Another cheaper possibility would be satellite communication radios carried in each vehicle hauling oil or hazardous materials, which are reliable except during national emergencies.

In addition to communications, a notification system should be in place for emergency notification and/or evacuation of the local community residents. An audible siren in conjunction with a reverse 911 automated phone notification system should be required for adequate notification in case of a fire or release of hazardous gases requiring evacuation of residents.

Conclusion Regarding Fire Protection

The MND fails to assess the increased risk of fire posed by the proposed project and proposes development of an Emergency Plan as mitigation. The MND has not presented substantial evidence that the potential significant impact to Fire Protection resources has been mitigated to a less than significant level. Therefore, a fair argument can be made that impacts on the quality of the environment will be significant.

2) Police Protection

The MND fails to assess the impact on police protection resources by the proposed project. This project will allow a secondary access to the remote, dead-end Huasna Valley, which may result in increased crime. The San Luis Obispo County Sheriff's Department has a response time generally greater than 30 minutes to the Huasna Valley. An influx of oil workers may result in an increase in crime and reckless driving.²²

Mitigations for police protection-related impacts should include mandatory random drug testing of all project-related employees, a "safe and sane employment facility" rating, and magnetic swipe card readers for the gates on either end of the Porter Ranch Road, that record the time and identity of the employee. In addition, no trespassing/private property signage should be maintained at all times on either end of the Porter Ranch Road.

Conclusion Regarding Police Protection

The MND fails to assess the impact on police protection resources by the proposed project. Mitigations are needed to reduce the increase in crime that may accompany this project.

3) Schools

Despite the MND's statement, "The project has been revised to eliminate large vehicles from using Huasna Road and avoid potential conflict with these school buses," all service vehicles to the project site will use Huasna Road. These include regular propane delivery trucks, water trucks, portable-toilet service trucks, and may include trucks required to haul excess produced water and/or hazardous materials. In fact, the MND makes it impossible to evaluate the possible traffic on Huasna Road since the details of the easement agreement across the Porter Ranch are not part of the project documentation and may limit the number and type of vehicles allowed to use the private easement across the Porter Ranch.

The MND acknowledges that Huasna Road has Lucia Mar Unified School District (LMUSD) bus traffic four times per day and that there may potentially be hundreds of trips made each month by workers, support vehicles, and service vehicles along the Huasna Road that would directly affect LMUSD. It fails to assess the traffic collision road safety issues due to project traffic that may impact LMUSD busses.

As demonstrated by a recent survey of the Huasna Road grade, large vehicle traffic cannot negotiate 8 of the 26 curves on the Huasna Road grade without crossing the centerline and cannot share the road with an oncoming school bus without a collision.²³ The same holds true for several bridges along Huasna Road, including the bridge at the intersection of Huasna Road and Alisos Road. In addition, there is a curve on Branch Mill Road that has an above average collision rate for the state and was previously deemed unacceptable by the county to use as a transportation route for oil truck traffic.

The MND also fails to recognize or analyze the potential health hazard to LMUSD school children, as project propane delivery vehicles will travel on roads used by school buses and pass by schools carrying a hazardous material.

The MND should require an emergency response plan and notification of LMUSD in the event of a traffic accident involving a propane delivery truck or a hazardous material spill or fire in the Huasna Oilfield, since emergency vehicles would access the site along the Huasna

Road/Arroyo Grande City route. Vehicle weight requirement of the Huasna River Bridge or occurrence of an emergency during flooding of the Porter Ranch Road may require oil tanker truck traffic carrying oil-spill and/or other hazardous waste materials to share roads with school buses and pass by LMUSD schools.

Conclusion Regarding Schools

The MND fails to assess impacts to health and safety of LMUSD schoolchildren by the proposed project. Mitigations are needed to reduce impacts to health and safety of LMUSD schoolchildren. Installation of grid-based power to the project site would eliminate the propane deliver vehicle traffic that poses the biggest threat to school bus safety.

4) Roads

The MND completely fails to analyze the suitability of Huasna Road, Huasna Townsite Road, and the Huasna River Bridge to service an industrial project. Given the data in the MND, it is impossible to fully evaluate the possible traffic on any of these roads, since the details of the easement agreement to take project traffic across the Porter Ranch are not part of the project documentation.

However, one thing is clear. The proposed project will result in vehicle traffic that will exceed the weight limits of the Huasna River Bridge and must travel along Huasna Road to reach the project site. Some of this heavy traffic will be too large to legally and safely navigate the Huasna Grade, may cause road failure at the "area of potential slope failure" on the Huasna Road Grade, and may exceed the capacity of bridges along Huasna Road, including the bridge at Huasna Road and Alisos Road, which is considered "problematic" by the San Luis Obispo County Public Works Department. The MND fails to address or mitigate these issues.

The MND also fails to recognize that Huasna Townsite Road is currently an un-striped single lane road in desperate need of repaving. It must be widened and re-paved prior to safely and legally handle project vehicle traffic.

The MND acknowledges that the Huasna River Bridge requires retrofitting to ensure a twenty-ton weight limit, but fails to produce plans for a fully engineered, seismically upgraded, and inspected (by the appropriate County and State agencies) bridge. The MND's proposed mitigation of a new deck, installed by the applicant without adequate engineering data is not a legitimate mitigation. A private party cannot modify public property to suit their own benefit and a proper retrofitting of the Huasna Bridge should be bid out by the county and be conducted according to all appropriate engineering standards and regulations.

Conclusion Regarding Roads

The MND fails to address issues with the likely use of public roads by project vehicles and several safety issues associated with those roads.

Transportation

The MND's discussion of project impacts on traffic and circulation is inadequate. The MND's traffic impact analysis does not take into account the fact (recognized by CalTrans) that truck traffic associated with this type of project is significantly more prone to accidents. The traffic analysis must be revised to consider this fact to decide whether the project's impact on traffic could be greater than anticipated owing to an increased risk of truck-related accidents.

1) Highway 101/State Route 166

To address the higher rate of accidents, which are significantly associated with improper turns, Cal Trans asked that the County to require to project applicant to design and implement improvements at the intersection of SR 166 and Alamo Creek Road by (1) designing left turn channelization for Eastbound SR 166 out to Alamo Creek Road and (2) right turn flaring and acceleration lane taper for Alamo Creek Road right-turn movement onto west-bound SR 166. The MND does not contain a detailed description of these proposed improvements, or an analysis of the potential impacts of these improvements.

There will be cumulative traffic impacts at the Highway 101/ State Route 166 south-bound on-ramp with its non-standard merge distance with Highway 101 through lanes onto the Santa Maria Bridge. CalTrans has done an adequate analysis of the effects on Highway 101, SR 166 and the off and on ramps but does not address the effects on Thompson Avenue, Cuyama Lane and Hutton Road on both sides of Cuyama Lane. Currently during peak hours vehicles seeking to exit or enter the above roads are subject to increasingly longer delays. With the cumulative effects of the Diani Asphalt Plant, the Diamond Rock, Sand and Gravel Quarry, the proposed Santa Maria ethanol plant, and the proposed expansion of Conoco-Phillips refinery these intersections could fail.²⁴

Although CalTrans has proposed appropriate mitigations to traffic safety impacts on the Alamo Creek Road/State Route 166 interchange prior to commencement of the Production Phase of the project, no mitigations have been proposed to mitigate the traffic safety impacts during the Exploration/Testing phase of the project, when a higher number of vehicles are expected to use the interchange. A number of those construction vehicles will be oversized or overweight and present a higher safety risk than the Production Phase oil tanker traffic.

2) Haul Route Private Roads

As noted by Dr. Curry (see Exhibit 1), some of the local private roads that are proposed as truck routes for this project are prone to liquefaction as a result of high groundwater saturation. Regular oil truck traffic could result in significant damage to these roads and liquefaction, thereby significantly affecting local traffic patterns. The MND indicates that some of these roads will need to be improved by the project applicant, but it does not include an adequate discussion of what exactly these mitigation measures will consist of, or the degree to which they will be able to address potential project impacts on local roads.

In addition, it is likely that the Road Easement Agreement between Excelaron and the owners of the Porter Ranches, which was negotiated at a time the project description required only sixteen haul truck roundtrips per day, does not allow for adequate tanker truck traffic or any construction traffic to transit the road. The MND's claim that the applicant will shut down operations whenever the haul route road is deemed "impassible" appears economically infeasible and should be subject to economic analysis, as the oil storage stock tanks and pipelines must be continuously heated in order to keep the thick oil flowing. Such economic pressures might give rise to poor decision-making regarding road conditions, resulting in accidents and/or spills.

3) Public Roads

The MND fails to acknowledge that the proposed project will result in vehicle traffic that will exceed the weight limits of the Huasna River Bridge and must travel along Huasna Road to reach the project site. Some of this heavy traffic will be too large to legally and safely navigate the Huasna Grade, may cause road failure at the "area of potential slope failure" on the Huasna Road Grade, and may exceed the capacity of bridges along Huasna Road, including the bridge at Huasna Road and Alisos Road, which is considered "problematic" by the San Luis Obispo County Public Works Department. The MND fails to address or mitigate these issues.

The section of Huasna Road between School Road and Huasna Townsite Road already has an above average accident rate (1.6 times the state average collision rate). The addition of service vehicles and other potentially hazardous vehicle traffic to this already unsafe section of road, combined with oil truck traffic and/or hazardous waste traffic during times of emergency, road flooding, or to meet the air quality mitigation to use a closer refinery, could result in a higher collision rate.

In the event of a fire, hazardous materials spill, or release of hazardous gases, emergency and other vehicles would access the site along the Branch Mill Road/East Cherry Lane route or through the City of Arroyo Grande. Fire trucks and tanker trucks carrying spilled oil and other hazardous materials exceeding the 20-ton weight limit of the Huasna River Bridge must travel north from the project site along Huasna Road to Branch Mill Road/East Cherry Lane or through the Village of Arroyo Grande. During times when the southern access route is flooded, all emergency and cleanup traffic would use this route. This scenario is not analyzed or accounted for in the Mitigated Negative Declaration.

It is likely that propane delivery trucks and employee vehicles will use Branch Mill Road and East Cherry Lane as a shortcut traveling to the project site from Hwy 101. One curve on Branch Mill Road has an above average accident rate for the state that was previously deemed unacceptable by the county to use as a transportation route for oil truck traffic. An increase, by an unknown amount, of propane delivery vehicles and other support vehicle traffic would result in increased accidents along this route.

There will also be significant impacts on Arroyo Grande or Nipomo traffic if the suggested air quality mitigation to change the destination refinery results in oil trucks re-entering the county to go to the Conoco-Phillips refinery.

Conclusion Regarding Transportation

The MND lacks complete information regarding project related traffic and as such is unable to fully evaluate significant impacts on traffic.

Water (See Exhibit 1)

As explained by Dr. Curry, Ph.D., the MND's discussion of the project's potential impact on groundwater resources is inadequate. According to Dr. Curry, the project as proposed could potentially result in significant contamination of the groundwater because re-injected water could result in oil and produced water, with its associated hazardous material contaminants, seep upward into the local domestic wells and the groundwater basin. Accordingly, it can be fairly argued that the project, as proposed will result in a significant adverse impact on groundwater resources.

Again, the MND defers discussion of impact to surface waters to future studies and future proposed monitoring. An analysis of likely impacts as well as requirements to avoid and/or mitigate such impacts should be a part of the information considered by County decision makers and the public. Based on the information in the MND, the County cannot find that impacts have been mitigated to a level of less than significant

The MND fails to discuss the proposed source for the typical "hundreds of thousands of gallons of water (that) are required to drill and complete a conventional (oil) well."²⁶

Conclusion Regarding Water

The MND completely fails to assess impacts to freshwater, a mandate of the San Luis Obispo County Land Use Element. Section 22.34.010 states, "The fresh water supply must be fully protected from pollution by petroleum operations." (Ord. 2892 § 1 (part), 2002). A fair argument is raised by Dr. Robert Curry, Phd., that there will be significant, unmitigable impacts on the freshwater supply and therefore and EIR is required.

Conclusion

This project is much too complex and has far too many unknown impacts to be approved using the Mitigated Negative Declaration CUP process. There are serious unanswered questions remaining regarding potential scope of the project and potential piecemeal approaches, disposal of produced make-up water and other fluids, produced natural gas, reuse of existing abandoned wells, and transport of products on local unstable roadways.

The Mitigated Negative Declaration is required to present substantial evidence in the record to support a finding that the proposed project will not result in significant environmental impacts. In this regard the San Luis Obispo County's Mitigated Negative Declaration (ED07-311) fails. The evidence, analysis, and testimony in the record, including the comments here and the expert comments and analyses appended in Exhibits 1-6, support a fair argument that the proposed project, despite the inclusion of the proposed mitigation measures, may result in significant environmental impacts.

The proposed mitigation measures are defective because they inappropriately defer surveys and mitigation to uncertain dates in the future and leave the identification of mitigation measures to other trustee agencies and/or consultants until after the project has already been approved. This is not consistent with the intent of the California Environmental Quality Act (CEQA) as a Mitigated Negative Declaration cannot be based on the presumed success of mitigation measures not formulated at the time of approval of the project. Furthermore, mitigations must avoid impacts if feasible, not just minimize impacts. Of the mitigations that are proposed, the Mitigated Negative Declaration fails to include specific performance standards, assess whether the mitigations are capable of reducing the project's impacts to less than significant, or analyze the impacts of the proposed mitigation, as required under the California Environmental Quality Act (CEQA).

Accordingly, it can be fairly argued that the proposed project will result in significant adverse environmental impacts. The proposed project must be addressed through a full EIR process. The County, the Community, and the State all need to be able to review and critique the many real and potential impacts of this proposed project.

References

- 1 "Process Flow Diagram", Rincon Air Quality Report, Appendix A. December 8, 2008. SLO County Negative Declaration and Notice of Environmental Determination, February 5, 2009.
- 2 "Significant Well Data and Production History." 1980 Lorena Project Environmental Impact Report. Appendix D, Part IV. Data can also be found in well logs on file with The Division of Oil, Gas, and Geothermal Resources.
- 3 "Agency Contact Sheet - John Zuelberti, Division of Oil and Gas, Santa Maria." 1980 Lorena Project Environmental Impact Report. Appendix E, Part I.
- 4 Letter from DOGGR to Ron Skinner, August 4, 2008. SLO County Negative Declaration and Notice of Environmental Determination, February 5, 2009.
- 5 Testimony submitted to the House Committee on Energy and Commerce by Victor Carillo, Chairman, Texas Railroad Commission, representing the Interstate Oil and Gas Compact Commission. February 10, 2005.
<http://www.rrc.state.tx.us/commissioners/carillo/press/energytestimony.html>).
- 6 "Our drinking water at risk", Oil and Gas Accountability Project, April 2005.
- 7 U.S. Environmental Protection Agency EPA 816-D-02-006, August 2002.
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- 9 "The EIR provides additional details that are generally valid relating to the construction work necessary to prepare the site and well holes." SLO County Negative Declaration and Notice of Environmental Determination, February 5, 2009. Page 4.
- 10 Rincon Air Quality Report, December 8, 2008. SLO County Negative Declaration and Notice of Environmental Determination, February 5, 2009.
- 11 Radon, a radioactive gas formed by the decay of small amounts of uranium and thorium naturally present in rock and soil, is associated with Monterey Formation geological units extending over 17.8 percent (590 square miles) of San Luis Obispo County. A 2005 study by the Department of Public Health Indoor Radon Program estimated 5.9% of San Luis Obispo residents live in homes with radon levels exceeding the U.S. EPA recommended action level above which remedial action should be considered (California Geological Survey, Department of Conservation, 2008. "Radon Potential in San Luis Obispo County, California."). Radon gas can move from underlying soil and rock into houses and become concentrated in the indoor air, posing a significant lung cancer risk for the residents. Indoor radon exposure is estimated to be responsible for 21,000 lung cancer deaths annually in the United States (U.S. EPA, 2007).

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- 19 Case # 1081052. November 26, 2008. California Superior Court, San Luis Obispo.
- 20 South County Advisory Council request to the *Planning Commission/Board of Supervisors* to require a formal environmental impact report for the proposed Huasna Oil Production Project.
- 21 Excelaron response letter to APCD, January 21, 2009.
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- 23 "Huasna Road Grade Survey." Submitted to SLO County Public Works division by Grant Dorman, PLS 7691 on August 22, 2008.
- 24 See reference 20.
- 25 Letter to the U.S. Environmental Protection Agency from Burlington Resources, June 21, 1999. Cited in "Drilling to Disaster", S. Smith, K. Rexford and K. Teitgen. *Bluewater Network* 2002. p. 4.

Acknowledgements

The Huasna Valley Association would like to acknowledge the following people for their help in the preparation of this document: Dr. Robert Curry, Ph.d., P.G., Watershed Systems for the Hydrologic and Geologic Review; Gordon Hensley, San Luis Obispo Coastkeeper (EPI) for the Biology and Surface Water Review; Dr. David Lord, Ph.D., 45dB Acoustics Consulting for the Acoustic Study and Review; Paul Scheibe, Ph.d, P.E. and Ron Skinner, M.S. for their assistant with Energy Budget Calculations; Babak Naficy, Legal Counsel; And the many individuals who contributed advice and comments, including: Morgan Rafferty, Doug Timewell, Tracy Del Rio, Lyn Schultz, Trish Norman, Anna Gabriel, Dennis Allan, and Peter Keith. The author, Ron Skinner, would also like to thank his wife and children for their support in this effort.

Exhibit 1 - Hydrologic and Geologic Review

Exhibit 2 - Biological Review

Exhibit 3 - Acoustic Review (to be submitted at a later date)

Exhibit 4 - Background Noise Level Study

Exhibit 5 - Energy Budget Calculations