

DOCKETED

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Document Title:	Additional Information Requested in the PSA/DEIS Provided by Occidental of Elk Hills
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Additional Information Requested in the PSA/FEIS 9-30-13
Provided by Occidental of Elk Hills, INC.

The Executive Summary of the Preliminary Staff Assessment/Draft Environmental Impact Statement (PSA/DEIR) lists information staff requires prior to issuing an FSA/FEIS. See Executive Summary p. 1-35 et seq. Most of the information requests appear to be directed to HECA, the project applicant, but some of the requests are directed at the OEHI component. Below is a list, arranged by technical area, of outstanding information staff requires prior to issuing an FSA/FEIS that require a response from OEHI. Please refer specifically to each technical section for a detailed discussion and the context for which the information is required.

BIOLOGICAL RESOURCES

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The following is a list of information related to biological resources that the applicant must provide to staff in order to finalize preparation of the FSA/FEIS:

- Additional focused protocol-level botanical surveys (CDFG 2009) along all linear routes and additional baseline botanical data, primarily the proposed carbon dioxide pipeline route;

Response: The past two summer seasons have been too dry to conduct a protocol-level botanical survey and, accordingly, we have been unable to collect the botanical survey information requested for the OEHI project area. If precipitation is favorable, botanical surveys will be conducted in the spring of 2014. The proposed locations of the CO2 pipeline, CO2 plant and other laterals have been slightly changed. The survey report will reflect the slight change in locations.

- Extent of CDFW Section 1600 jurisdiction and impacts to state waters (ephemeral drainages) in the project area, including all linear routes and ephemeral drainages that may occur along the proposed carbon dioxide pipeline route;

Response: The OEHI Preliminary Jurisdictional Delineation of Waters of the U.S. Report was submitted to CEC by URS and was docketed August 1, 2013. Since the report was developed, OEHI has determined that the planned locations of the CO2 pipeline, CO2 plant and other laterals must be shifted slightly. As appropriate, the report will be updated to reflect these slight changes.

- Extent of U.S. Army Corps of Engineers Section 404 jurisdiction in the project area and impacts to Waters of the U.S.;

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Response: URS also submitted the Jurisdictional Delineation Report to ACOE and a copy of the letter is docketed with the Report. As noted the report will be updated to reflect the minor changes in the planned locations of some of the facilities.

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- Habitat mitigation strategy for habitat loss impacts from OEHI component of HECA at the Elk Hills Oil Field. Please identify whether species impacts including habitat loss for the OEHI component would be included under the Section 10 Habitat Conservation Plan currently under preparation or if habitat loss for the OEHI component of HECA would be mitigated under separate consultations with CDFW and USFWS;

Response: Consultation on the 2081 permit and HCP is underway with CDFW, but the scope of the coverage and mitigation strategy for OEHI habitat loss impacts have not been finalized.

CARBON SEQUESTRATION AND GREENHOUSE GAS EMISSIONS

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5. Further information describing how OEHI would abate CO₂ if it leaks to the surface and escapes into the atmosphere.

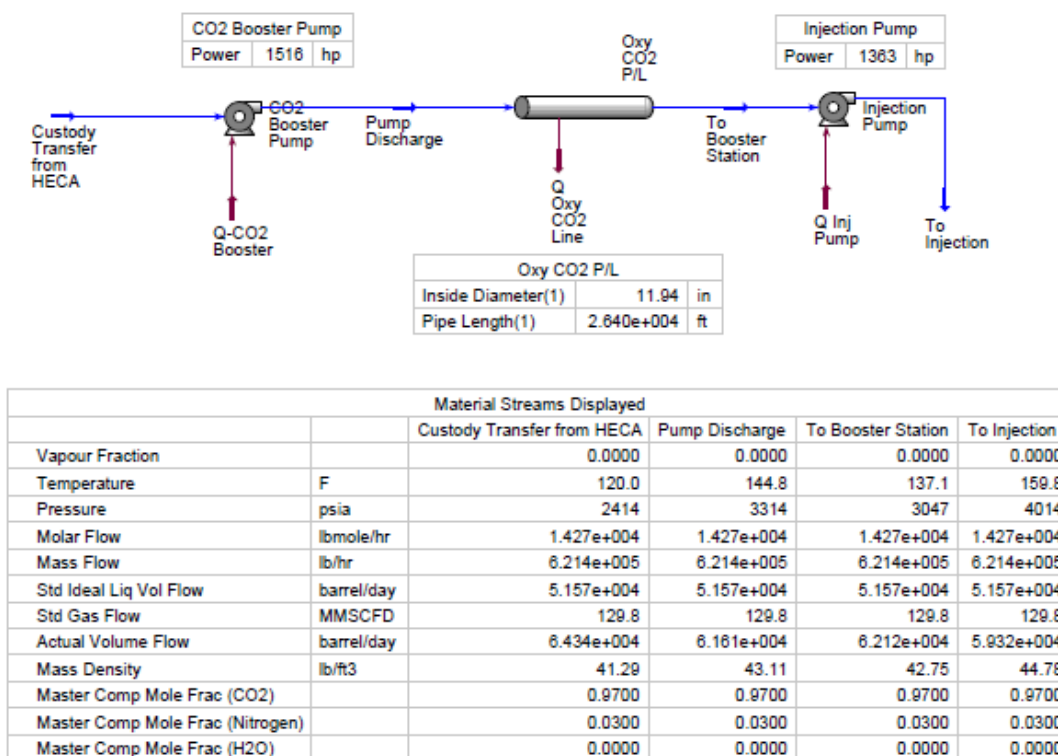
Response: OEHI will submit a revised Monitoring, Reporting and Verification (MRV) Plan to address this request.

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- J. The applicant stated that the power consumption for initial CO₂ compression that is completed at the HECA site was sufficient to provide CO₂ at a pressure necessary for geologic sequestration.
 - Please confirm that means that the compression completed at the HECA site and the power consumed by the compressors on the HECA site is adequate to provide a level of compression that is sufficient to provide pressure necessary for geologic sequestration, or if the power consumption calculations include additional compression power consumption beyond that which is actually done at the HECA site that would be needed to obtain the desired pressure.

Response: Additional compression is required, above that supplied by HECA, to inject CO₂ into the target geologic formation. The document below (provided on June 27, 2013) summarizes power requirements for the additional compression.

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- Please indicate if the assumed pressure necessary for geologic sequestration is the same pressure that is required by Oxy Elk Hills (OEHI) to inject the CO₂ into the Stevens formation.

Response: The answer is yes.

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M. Please provide a detailed list of the monitoring and recordkeeping methods and procedures that are proposed to be used to demonstrate ongoing compliance with the SB 1368 emission performance standard (EPS) during facility operations. This should include:

- Monitoring methods and locations to establish CO₂ emissions from all onsite project sources, including fugitive emissions sources.
- Monitoring methods and locations to establish net electricity generation values for all electricity consumed and generated.

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- Recordkeeping measures to ensure completeness and accuracy of data collected.
- Coordination with OEHI to obtain necessary data on carbon sequestration to support the value of the sequestered CO₂ that can be used to account for the amount of CO₂ shipped to OEHI.

NOTE: Questions 4.3-100 M (1-4) apply to both HECA and OEHI, but the following response to question 4 is provided by OEHI.

Response: OEHI will coordinate data sharing with HECA to support HECA's demonstrations with respect to SB1368 emission performance standards. Carbon sequestration data collection at OEHI is documented in the Monitoring, Reporting, Verifications (MRV) Plan, which will be revised as needed to address these requests.

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UNRESOLVED AREAS RELATING TO CULTURAL RESOURCES

Staff believes the HECA and related OEHI components would result in direct and indirect impacts to NRHP/CRHR-eligible cultural resources. However, staff requires additional information about cultural resources in order to complete its analysis. Without this information, staff cannot make a determination whether project impacts to sensitive cultural resources would be reduced to less than significant levels.

Staff will continue to work with the applicant, OEHI, and the DOE to resolve all outstanding information needs prior to the FSA/FEIS. Additional conditions of certification or modifications to currently proposed conditions of certification are likely to be necessary based on further consultation with agency personnel and information provided by the applicant. In summary, staff requires the following information in order to prepare and complete a FSA/FEIS:

- For the EOR components: all of the information required for cultural resources in the Energy Commission Siting Regulations, Appendix B (20 Cal. Code Regs., §1704(b)(2), App. B).
- Complete pedestrian survey results for all of HECA's linear alignments.

Response: Plans are underway to revise and resubmit the Cultural/Paleontological Report for the EOR components in accordance with the Energy Commission Siting Regulations, Appendix B (20 Cal. Code Regs. §1704(b)(2), App. B). The proposed locations of the CO₂ pipeline, CO₂ plant and other laterals have been slightly changed. The survey report will reflect the minor change in locations.

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- Results of test excavations and evaluations of CRHR/NRHP eligibility for all archaeological sites that staff has identified as having the potential to be directly impacted by HECA or OEHI.

Response: Test excavations have not been done for the EOR component.

- Results of geoarchaeological field sampling.

Response: Geoarchaeological field sampling will be done if the pipeline alignment and the revised Cultural/ Paleontological Report show that it is necessary.

These four categories of information need are discussed in detail below. In addition to these considerable data gaps, staff also needs to determine the function of the unidentified canal on MR 8, Adohr/Palms Farm.

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Cultural Resources Data for Enhanced Oil Recovery Components

OEHI personnel informed staff in January 2013 that their environmental consultant, Stantec Corporation, completed a cultural resources inventory and report on the EOR components of the proposed project. Staff has yet to receive the cultural resources inventory report and records search materials, however. From conversations with OEHI, staff understands that the records search materials fill at least one paper-ream box, indicating that there is much information to review in concert with the inventory report. In order to have adequate time to review the cultural resources inventory report and records search materials—and meet the presiding committee’s scheduling order—staff requests that the applicant provide this documentation to staff 8 weeks prior to the filing date for the FSA/FEIS. Assuming that the inventory report and records search materials adequately answer outstanding data requests concerning cultural resources in the proposed EOR components, staff would be able to incorporate the new information into and analyze it in the FSA/FEIS by the current filing date of July 15, 2013. Outstanding data requests concerning cultural resources in the proposed EOR components include A141–146, A189, and A190.

Responses to data requests A141–146 were docketed on July 25, 2013, and data requests A189, and A190 were docketed on May 22, 2013. However, plans are underway to revise and resubmit the Cultural/Paleontological Report in accordance with the Energy Commission Siting Regulations, Appendix B (20 Cal. Code Regs., §1704(b)(2), App. B). The proposed locations of the CO2 pipeline, CO2 plant and other laterals have been slightly changed. The survey will reflect the slight change in locations.

SOILS AND SURFACE WATER RESOURCES

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Additional Information for the draft Drainage Erosion Sedimentation Control Plan

- The applicant has identified that HDD would be used to pass the CO₂ pipeline under the Outlet Canal, the Kern River Flood Control Channel (KRFCC), and the California Aqueduct (Aqueduct), as shown on **Soil & Surface Water Figure 9**. In addition, the draft DESCP states that an assessment of the crossing methods (conventional open trenching or HDD) would be made for all water bodies, such as irrigation canals, along other pipeline routes. If additional HDD locations are anticipated, staff needs to analyze the proximity of potential resources at and in the vicinity of these locations. Please show all potential locations of HDD activities in the DESCP and update the disturbed soil estimates of entry/exit pits. If HDD sites are not yet finalized, please be conservative and include all potential sites.

Response: OEHI is not aware of any HDD locations other than those mentioned.

WASTE MANAGEMENT

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- Staff was not provided a breakdown of types and quantities of nonhazardous and hazardous waste that will be generated from the OEHI component of HECA to confirm that the project will not have an impact on Kern County landfills. This data would be needed for staff to complete an assessment of potential impacts.

Response: The following information can be found in the OEHI Supplemental Environmental Document submitted in Volume II of the HECA Amended AFC. Section 4.16 Utilities and Service Systems. Activities at the EHOFF generate many types of solid waste, most of which are non-hazardous waste streams.

A total of approximately 4,000 tons/year (equivalent to one truck trip every three days) of non-hazardous solid waste, such as construction debris and domestic-type wastes and trash, are removed from the EHOFF. The amount of solid waste generated as a result of the Project will not be significantly greater than that generated during existing construction and operations at the EHOFF without CO₂ EOR. Therefore, no substantial increase in the generation of solid wastes above existing baseline conditions are anticipated as a result of project implementation. As such, the Project is not expected to be served by a landfill with insufficient permitted capacity to accommodate the Project's solid waste disposal needs. Considering the above, the project would have a less than significant impact on landfill capacities and facilities.

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