

Volume 3

Chapter 7

Responses to Comments

SCH# 2012011029

*Beacon Photovoltaic Project
by Beacon Solar LLC*

Conditional Use Permit 11, Map 152

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the CD found on the inside cover of this Final EIR.**

- Attachment 1:** Attachments to Gideon Kracov Comment Letter (Comment Letter 7)
- Attachment 2:** Five Phase I Environmental Site Assessments, Underground Storage Tank Removal Report, and Site Restoration Report
- Attachment 3:** Beacon Photovoltaic Solar Energy Project Focused Golden Eagle Survey Results
- Attachment 4:** The Impact of Wind Power Projects on Residential Property Values in the United States: A Multi-Site Hedonic Analysis
- Attachment 5:** Fate and Transport Evaluation of Potential Leaching Risks from Cadmium Telluride Photovoltaics

INTERESTED PARTIES

Comment Letter 7: Gideon Kracov (August 23, 2012)

Note to Reader: This commenter submitted a number of reference material, which is included as Attachment 1 and is reproduced on a CD found on the inside cover of this FEIR.

7-A Thank you for your comments. The participation of the commenter in the public review of this document is appreciated. The commenter submitted comments on behalf of Laborers International Union of North America (LIUNA), Local 220 and its members residing in Kern County.

The commenter states that the document contains many errors and omissions that preclude accurate analysis of the project. Additionally, the commenter requests including his office on the mailing list for all CEQA and local land use notices for the Project. The lead agency notes that the commenter has been added to the pertinent mailing list for the project.

7-B The commenter lists a series of deficiencies in the document including the lack of consistency with the General Plan, a failure to analyze cumulative urban decay and risks of abandonment of the project, inadequate analysis of potentially significant impacts to biological resources, air quality, hydrology, water quality, failure to establish a baseline for soil conditions, inadequate analysis of cumulative impacts to land, and that it does not identify a reasonable range of alternatives. Responses to these specific comments can be found below in Responses 7-H through 7-B2.

7-C The commenter states that the comments have been prepared with the assistance of Michael Kavanaugh, PhD and Matt Hagemann, P.G. C.Hg. The comments of Dr. Kavanaugh and Mr. Hagemann are included here and are separately addressed in Responses 7-V through 7-X and 7-Y through 7-B2, respectively.

7-D The commenter states the LIUNA Local 220 recognizes the importance of renewable energy in reducing greenhouse gas emissions and is essential to forestall the consequences of climate change and help California meet its emissions reductions goals. The commenter also states that LIUNA Local 220 supports the development of renewable energy including solar power through properly sited and carefully planned projects that minimize impacts on the environment, avoid impacts to sensitive species and habitats, and should reduce costs to electrical consumers and impacts associated with new transmission corridors. As such, the project falls short and as a consequence, the DEIR should be revised and recirculated. These comments are reiterated below and are specifically addressed in Responses 7-H through 7-B2.

7-E The commenter characterizes the project from the project description as a proposed photovoltaic (PV) solar facility generating 250 megawatt (MW) using about 972,000 solar panels, including various on-site features (e.g., inverters, transformers, substations, etc) and 2 miles (*sic*) of transmission lines, on a total of 2,301 acres of land near California City, Mojave, and Cantil/Rancho Seco.

The commenter also correctly summarizes the project construction timeframe and project lifespan, lists the various construction-related components, existing zoning of the project site,

and notes that the applicant is seeking a Conditional Use Permit (CUP) in order to comply with the Kern County Zoning Ordinance.

The commenter reiterates assertions regarding the inadequacy of the DEIR and the proposed mitigation measures, as well as the omission of analysis on construction related impacts, discussion of economic impacts including urban decay, and permanent cumulative impacts of the conversion of agricultural land to a non-agricultural use. These comments are separately reiterated below and are specifically addressed in Responses 7-H through 7-B2

7-F The commenter states that LIUNA Local 220 has members who live, work and recreate in the immediate vicinity of the project site, and may be affected by the project. Therefore LIUNA Local 220 and its members have a direct interest in ensuring that the project is adequately analyzed and that its environmental and health impacts are mitigated to the fullest extent feasible.

The lead agency recognizes that LIUNA Local 220 has members who may live, work or recreate in Kern County. The lead agency notes that standing is a legal doctrine that constrains who can file suit in court, and the State of California has standing requirements in terms of requiring a showing of some sort of harm caused by the alleged CEQA violation that a court can redress.

7-G The commenter cites Public Resource Code Sections and California Supreme Court case law related to the preparation and certification of EIRs, and the DEIR's inherent purpose and value in serving as an informational document for the public and responsible officials and these comments are so noted.

The lead agency concurs that the DEIR is an informational document. The Beacon Photovoltaic Project DEIR was prepared and reviewed by County Staff and technical experts and is consistent with State CEQA Guidelines. The document includes analysis related to Aesthetics, Air Quality, Biological Resources, Cultural Resources, Geology and Soils, Greenhouse Gas Emissions, Hazards and Hazardous Materials, Hydrology and Water Quality, Land Use and Planning, Noise, Public Service, Transportation and Traffic, Utilities and Service Systems, and Mineral Resources. Furthermore, Chapter 2, *Introduction*, of the DEIR specifically states the purpose of the document (see Section 2.2, *Purpose of This Environmental Impact Report*, on pages 2-1 and 2-2).

The lead agency concurs that the DEIR is a public informational document used in the planning and decision-making process. This project-level DEIR analyzes the environmental impacts of the proposed project. The Kern County Planning Commission and, if necessary, Board of Supervisors, will consider the information in the DEIR, including public comments and responses to those comments, during the public hearing process. The final decision is made by the Kern County Planning Commission for projects that require only a CUP. If appealed, the Board of Supervisors will need to make the final decision regarding the certification of the DEIR and the proposed CUP. The Planning Commission or, if necessary, Board of Supervisors may approve, conditionally approve, or deny the project. The purpose of a DEIR is to identify:

- The significant potential impacts of the proposed project on the environment and indicate the manner in which those significant impacts can be avoided or mitigated,

- Any unavoidable adverse impacts that cannot be mitigated, and
- Reasonable and feasible alternatives to the proposed project that would eliminate any significant adverse environmental impacts or reduce the impacts to a less-than-significant level.

Furthermore, Chapter 2, “Introduction,” of the DEIR specifically states the purpose of the document (see Section 2.2, “Purpose of This Environmental Impact Report,” on pages 2-1 and 2-2). The DEIR also discloses potential impacts found not to be significant and significant cumulative impacts of past, present, and reasonably foreseeable future projects. CEQA requires an EIR to reflect the independent judgment of the lead agency with respect to impacts, disclose the level of significance of the impacts both with and without mitigation, and describe the mitigation measures proposed to reduce the impacts.

An EIR must contain a reasonable range of feasible alternatives to the project, or to the location of the project, which can attain most of the project’s objectives and would avoid or substantially lessen any of the project’s significant effects. Pub. Res. Code § 21100(b)(4); 14 Cal. Code. Regs § 15126.6(a). The selection of alternatives to be discussed in an EIR is governed by the rule of reason. *Id. See also Laurel Heights Improvement Association v. Regents of the University of California (1988) 47 Cal.3d 376*. An agency may eliminate from consideration alternatives that do not avoid or substantially lessen the project’s significant environmental impacts. *Mann v. Community Redevelopment Agency (1991) 233 Cal.App.3d 1143, 1150-51*.

An EIR is required to include a reasonable range of alternatives. However, to satisfy that requirement, a project is not obligated to include an alternative that will not substantially reduce or avoid the project’s significant impacts. In *Tracy First v. City of Tracy (2009) 177 Cal.App.4th 912*, a case involving a proposed specific plan amendment and conditional use permit to build a 95,900 square foot WinCo Foods store, the petitioners argued that the project EIR’s range of alternatives was insufficient because it did not include a “reduced-store-size” alternative. The court rejected this argument as “without merit” because the record did not establish that “a reduced-size alternative would substantially diminish any of the significant environmental impacts of the project.”

A DEIR is circulated to responsible agencies, trustee agencies with resources that would be affected by the project, and interested agencies and individuals. The review process gives both agencies and individuals an opportunity to share expertise, discuss agency analyses, assess for accuracy, detect omissions, as well as solicit public concerns. Reviewers of a DEIR are requested to focus on the sufficiency of the document (i.e., the thoroughness of its identification and analysis of possible impacts on the environment as well as ways to avoid or mitigate such impacts). The lead agency is of the opinion that this DEIR and the public review process has sufficiently complied with State CEQA Guidelines.

7-H The commenter asserts that the project is fatally inconsistent with the County’s General Plan, violating CEQA and land use law. The commenter goes on to state that the County must treat its analysis of conflicts with the General Plan seriously and land use decision must be consistent with the plan, as noted in CEQA Guidelines. He paraphrases portions of various court cases regarding the intent of the General Plan as a “constitution,” “a charter,” and a “guide” for all future developments in the County. Any local decision affecting land use and

development depends upon consistency with the applicable general plan and its elements. The commenter also notes that projects impacts may be deemed significant if they are in conflict with any applicable land use plan, policy or regulation of an agency with jurisdiction over the project.

In response, the lead agency notes that all projects would be subject to any adopted County standard unless specific variances, modifications, and/or approval are granted. The Draft EIR assessed the project's consistency with the Kern County General Plan, the Kern County Zoning Ordinance, the Airport Land Use Compatibility Plan (ALUCP) and other appropriate regulations, which are thoroughly discussed in Section 4-9, *Land Use and Planning*. The lead agency notes the General Plan is a set of long-term goals and policies that the County uses to guide development decisions. Although the plan establishes standards for population density, building intensity, and the distribution of land uses, it does not directly regulate site specific land use development proposals. Zoning, on the other hand, is regulatory. Under the Zoning Ordinance, development must comply with specific, enforceable standards such as minimum lot size, maximum building height, minimum building setback, and a list of allowable uses. Zoning applies lot-by-lot, whereas the general plan has a community-wide perspective. The lead agency notes that the DEIR comprehensively evaluated the applicable land use policies and regulations of the Kern County General Plan, the Kern County Zoning Ordinance, and ALUCP to the proposed project and determined the project to be generally consistent with those goals and policies. The commenter does not provide evidence to contradict the conclusions of the DEIR, and as such, the document has adequately addressed this issue under CEQA

- 7-I The commenter asserts that the DEIR is inconsistent with Section 1.3 *Physical and Environmental Constraints* and Section 1.9 *Resource*, of the General Plan, that the DEIR fails to conduct a complete consistency analysis. Additionally the DEIR should be revised to analyze inconsistencies, identify appropriate mitigations, or set the foundation for a finding of overriding considerations.

The commenter contends that the DEIR fails to mention Policy 1 and that the project is not consistent with Policy 1 because it would be located in an area with potential seismic and flood hazards. The commenter alleges that the DEIR failed to cite studies establishing that the project would not result in significant impacts related to flooding and seismic hazards. The lead agency disagrees with this comment. DEIR Section 4.5 *Geology and Soils* is based on technical analyses provided in a Soil Characterization Report (AECOM, 2011) and a Preliminary Hydrology and Hydraulics Study (AECOM, 2012), both prepared specifically for this project. (See DEIR Appendix G and Appendix H).

Policy 1 is provided in Section 4.5, *Geology and Soils*, pages 4.5-8 and 4.5-9; and Section 4.8, *Hydrology and Water Quality*, page 4.8-8 and 4.8-9, of the DEIR. As discussed in Section 4.5, *Geology and Soils*, the proposed onsite building would incorporate the 2010 California Building Code (CBC) earthquake design requirements. In addition, Mitigation Measure MM 4.5-1 requires that a geotechnical engineer design project facilities to withstand seismically induced ground shaking on the site. With incorporation of the mandatory CBC requirements and Mitigation Measure MM 4.5-1, significant impacts related to seismic hazards would not occur and the project would be consistent with Policy 1. Furthermore, no office or other human-occupied structures would be constructed in the seismic hazard zone.

Impacts related to on- and off-site flooding are discussed in Section 4.8, *Hydrology and Water Quality pages 4.8-1 – 4.8-20*).

As discussed in Impacts 4.8-4 and 4.8-5 (pg. 4.8-10 of the DEIR), the proposed project would alter site drainage patterns as compared to existing conditions. Concrete pads, the operation and maintenance building, PV panel posts, etc, would introduce new impervious surfaces that could potentially increase the rate or amount of runoff. However, the total amount of new impervious surfaces for the site would be eight acres, which represents 0.4 percent of the total site. As proposed, large areas of pervious surfaces that would remain and be sufficient to absorb stormwater runoff and would ultimately not represent a significant increase of flows on- or off-site. In addition, site drainage and grading plans would be required to comply with specific guidelines related to flood control, erosion, and on-site drainage flow requirements. Proposed grading would elevate access roads and also act to detain flows from flooding off-site. Therefore, with implementation of MM 4.5-2, MM 4.7-1, MM 4.8-1 and MM 4.8-2, the alterations to the existing drainage patterns and impacts to runoff and flooding at the project site would be less than significant. In addition, the project has been designed to avoid the area designated as a shallow flood zone. Therefore, the project would be consistent with Policy 1.

As noted on page 4.8-2 and shown in Figure 4.8-1, there are portions of the subject property in a 100-year floodplain. However, as described for Impact 4.8-7 (see page 4.8-19), the project has been designed such that no structures would be located within the jurisdictional extent of Pine Tree Creek, and solar panel would be designed in such a way as to reduce any potential to impede or redirect flood flows. Therefore, with compliance with all State and local regulations as well as the proposed mitigation measures, there would be no project impacts resulting from flooding.

The commenter asserts that the DEIR includes an inadequate discussion of Policy 2 because it does not include an explanation of the ordinances and programs that would be implemented to mitigate potential hazards. Development standards and building requirements that address seismic and flood hazards are discussed in the DEIR, as are project-specific mitigation measures. Section 4.5, *Geology and Soils*, discusses the fact that onsite building would incorporate the 2010 CBC earthquake design requirements and Mitigation Measure MM 4.5-1 requires that a geotechnical engineer design project facilities to withstand seismically induced ground shaking on the site. Site drainage and grading plans would be required to comply with Division Four of the Kern County Development Standards, which establish specific guidelines related to flood control and on-site drainage flow requirements. The commenter alleges that the DEIR does not include mitigation measures to reduce impacts to flood hazards, as required by Policy 10. As discussed above, Section 4.8, *Hydrology and Water Quality*, includes a discussion of impacts related to flood hazards and provides mitigation measures that reduce impacts related to flooding to a less than significant level. The proposed project would be required to implement a Stormwater Pollution Prevention Plan (SWPPP) (Mitigation Measure MM 4.8-1) and a drainage plan (MM 4.8-2), which would minimize potential surface water pollution of waters that could ultimately enter the groundwater basin. Additionally, the proposed project does not include use of hazardous materials that could potentially be injected into wells or percolate into the soils that could affect the quality of ground water (see Section 4.7, *Hazards and Hazardous Materials* for a description of impacts related to hazardous materials).

The lead agency also notes that the responsible agencies such as the State Water Resources Control Board (SWRCB) or Regional Water Quality Control Board (Lahontan RWQCB) or Kern County Environmental Health Services Department have not commented on this project or the DEIR. Additionally, the lead agency received comment from the Kern County Engineering, Surveying and Permit Services, Floodplain Management Section who did not raise concerns regarding the impacts of the proposed project of the DEIR on hydrology and flood issues.

The commenter contends that the project would result in the loss of valuable agricultural land and therefore conflicts with Section 1.9, Resource, of the General Plan. As discussed in the Notice of Preparation/Initial Study (NOP/IS, Appendix A of the DEIR), the project site and surrounding areas include land that is within the A (Exclusive Agriculture) and A-1 (Limited Agriculture) zone districts. However, a solar_electrical generating facility is a permitted use and within the A (19.12.030.G) and A-1 (19.14.030.G) zone districts with approval of a Conditional Use Permit (CUP).

Although zoned for agriculture, no active agricultural lands would be affected by the project. The proposed project site is entirely undeveloped and is substantially disturbed from past agricultural activities that occurred up to the mid-1980s. The property is designated as either non-agricultural/natural vegetation or undeveloped/disturbed land by the California Department of Conservation Farmland Mapping and Monitoring Program (FMMP). Therefore, implementation of the project would not result in the loss of valuable agricultural land and would not result in the loss of any land currently used for agriculture. According to the California Department of Conservation (CDC), Division of Land Resource Protection's *Kern County Important Farmland 2010* map, there is no designated Prime Farmland, Unique Farmland, or Farmland of Statewide Importance within the project site. While the site contains fallow agricultural land, it has not been actively farmed since the 1980s, and is not recognized as important farmland by the CDC. In addition, there is no important farmland located adjacent to or in the vicinity of the project site. Therefore, there would be no direct or indirect impacts to important farmland designated as Prime, Unique, or of Statewide Importance.

The commenter points out that solar generating facilities are not explicitly listed as permitted land uses in the descriptions of "Intensive Agricultural" and "Resource Management" land use designations (Section 1.9 of the General Plan). As discussed in Response 7-H above, the General Plan lays out goals and policies that the County uses to guide development decisions; it does not directly regulate site specific land uses such as solar development. The Zoning Ordinance identifies specific, enforceable standards and a list of permitted and conditionally permitted uses. As discussed in Section 4.9, *Land Use and Planning*, the project site has a designated land use of 8.1 (Intensive Agriculture, min. 20 acre Parcel Size); 8.5 (Resource Management, min. 20 acre parcel size); 8.1/2.1 (Intensive Agriculture, min. 20 acre Parcel Size/Seismic Hazard); 8.5/2.1 (Resource Management, min. 20 Acre Parcel Size/Seismic Hazard); 8.5/2.5 (Resource Management, min. 20 Acre Parcel Size/Flood Hazard); 5.6 (Residential). The three mile portion of the property that is zoned as Platted Lands is undeveloped, and would be used for the transmission line. The majority of the site is zoned A (Exclusive Agriculture) or A-1 (Limited Agriculture), which allows for the operation of a solar facility with approval of a CUP. There are several approved solar projects located on

agricultural lands in Kern County, such as Valley Solar by enXco, Maricopa Sun Solar Complex and Lost Hills Solar, and the Kern County Board of Supervisors have determined that these solar uses are considered consistent with an agricultural designation. It should be further noted for the record that the Kern County General Plan has an adopted Energy Element (Chapter 5 of the Kern County General Plan). Within this element there are numerous goals and policies related to energy development including Section 5.4.5 of the General Plan which is specifically dedicated to solar Energy Development. The state goal within the plan is to encourage safe and orderly commercial solar development. Further the various policies encourage domestic and commercial solar development to improve air quality and specifically states that the County should permit solar energy development in the desert and valley planning regions that when it does not pose significant environmental or public health and safety hazards or located on undisturbed land supporting state or federally protected plant and wildlife species. Given the sites previous use as farmland and the fact that the DEIR does not identify any significant public health and safety hazards that cannot be mitigated, development of a solar facility at this site would be consistent with the adopted General Plan.

Further, Policy 16 of Section 1.9, states that “The County will encourage development of alternative energy sources by tailoring its Zoning and Subdivision Ordinances and building standards to reflect Alternative Energy Guidelines published by the California State Energy Commission.” The commenter states that the project is inconsistent with Policy 3 because solar is not compatible with agricultural land uses. Policy 3 states, “The County will support programs and policies that provide tax and economic incentives to ensure the long-term retention of agriculture, timber, and other resource lands.” As previously discussed, while the site contains fallow agricultural land, it has not been actively farmed since the 1980s, and is not recognized as important farmland by the CDC. However, approved solar projects play a significant role in meeting the Board of Supervisors’ adopted goal to promote the development of 10,000 MW of renewable energy within the County by year 2015. This would create over 8,000 construction jobs, 1,500 operational jobs and up to \$25 billion of investment in the County, and as such, are consistent with the policies laid out in the General Plan.

Based on the information presented above, the DEIR adequately analyzes and documents potential impacts of the project, including impacts related to land use, hydrology, and water quality, and concludes that with the implementation of the proposed mitigation measures, these impacts are less than significant. The DEIR also evaluated the applicable established land use policies and regulations of the Kern County General Plan, the Kern County Zoning Ordinance, and ALUCP to the proposed project and determined the project to be generally consistent with those goals and policies. The commenter does not provide evidence to contradict the conclusions of the DEIR, and Kern County, as lead agency, has adequately addressed this issue under CEQA.

7-J The commenter asserts that the DEIR does not adequately address urban decay. Response to this comment has been subdivided into four aspects.

Urban Decay – CEQA Requirements

The commenter cites several CEQA cases for the proposition that an EIR must analyze a project's potential to cause urban decay on both a cumulative and project level. The commenter asserts that the project will likely result in urban decay impacts that should have been analyzed in the DEIR. However, it is the lead agency's determination that the CEQA Guidelines and case law do not require an urban decay analysis under these conditions. Urban decay impacts from a solar energy project on agricultural land in a rural area are too remote and do not require analysis under CEQA.

In certain situations, courts have recognized urban decay as an indirect physical impact to the environment caused by a project's social and economic impacts which requires analysis under CEQA. While CEQA does not require analysis of the economic or social impacts of a proposed project (14 Cal. Regs. Section 15131(a)), the physical changes that are caused by a project's social or economic changes are characterized as indirect effects that must be analyzed under CEQA. (14. Cal. Regs. 15064(e)).

However, urban decay, as the concept has been developed by case law, has been limited to retail center development projects (often so-called "supercenters") that could draw business away from existing retail businesses. The environmental concern is that the competition from the new retail developments could cause the closure, abandonment, and vacancy of existing retail businesses (particularly in downtown areas), which in turn could lead to the physical deterioration and decay of the urban and/or downtown environments. See, e.g., *Citizens Assoc. for Sensible Development of Bishop Area v. County of Inyo* (1985) 172 Cal.App.3d 151; *Bakersfield Citizens for Local Control v. City of Bakersfield* (2004) 124 Cal.App.4th 1184; *Anderson First Coalition v. City of Anderson* (2005) 30 Cal.Rptr.3d 738.

The commenter cites no cases, and the lead agency is unaware of any, in which a court has held that urban decay analysis is applicable to a non-retail project, and certainly not to a commercial photovoltaic solar project proposed in a rural area. Furthermore, there is no substantial evidence presented in the DEIR that the Beacon Photovoltaic Project would cause urban decay. The project site is located in a rural area and will not result in vacancies in downtown business areas or otherwise adversely affect the livelihood of people in Kern County. The project will not cause people to abandon shops in nearby California City, much less in downtown Bakersfield, or neglect their homes and businesses such as to cause a physical degradation of the County. In fact, the project is expected to create hundreds of jobs during construction and several full time positions during project operation. The project site is vacant, previously disturbed land, and the construction of the project will not displace any existing businesses or residences. Thus, the central concern of the urban decay line of cases – that existing business would be displaced – is not present. While the commenter speculates that the conversion of agricultural land will lead to urban decay, the commenter provides no substantial evidence to support this assertion. Instead, the commenter posits, citing the comments of another commenter, that the project would have cumulative urban decay impacts based on the following causal chain: converting land to a solar PV use has the potential to put downward pressure on local employment and wages, which could result in a reduction in spending and draw downs in savings, which could result in reduced building maintenance and increases in mortgage delinquencies (no indication is given where these events might occur), which could lead to deterioration of residential and commercial properties (no indication is provided that this deterioration would result in "blight"), which

could ultimately result in adverse physical changes to the environment. Without any evidence to support this chain of tenuous assumptions, the claim is unsupported and has no basis in fact. CEQA does not require the County to engage in speculation or to analyze impacts that are unlikely to occur. The potential for project specific or cumulative urban decay impact is too remote to require analysis in the EIR for this proposed project.

Acres to MW Ratio

The commenter states that the proposed project is not an efficient use of the land since it would have a high acre to megawatt (MW) ratio compared to other proposed solar projects in Kern County. A project's total electrical generation is based on many factors such as panel efficiency, panel layout, distance to transmission lines, etc. The proposed project the County is processing is a Conditional Use Permit. Although many factors can be taken into account by the Planning Commission when considering a project, the proposed Conditional Use Permit is based on the identified project site, and not the estimated amount of electricity produced. It should be noted for the record that the identified 250 Megawatt proposal is an estimate based on the project proponents experience in developing solar facilities. CEQA does not require a specific standard for project efficiency to be associated with a proposed land use development. Regardless, as shown in the DEIR Chapter 3- *Project Description*, Figure 3-3a, although the entire site is included in number of acres analyzed, this project has been specifically designed to avoid the railroad right-of-way and washes (see Response 7-I) that run through the middle of the project property and along the railroad. When the acreage of these areas (that were avoided by the developer specifically to reduce other types of impacts and concerns) are accounted for, the Beacon PV Project has a MW per acre ratio that is similar to other solar projects.

Low Workers per Acre

The commenter maintains that the project would adversely affect employment in the area due to the low workers per acre associated with a solar project compared to the number of workers per acre associated with other land uses. The project site is currently vacant and has not been used for agricultural purposes since the mid 1980s. The project site and a large area of land surrounding the project site, currently employs zero (0) workers per acre. Consequently, the construction and operation of a solar power plant on this property would cause an increase in the workers per acre and could potentially induce other businesses to develop in the area, further increasing the worker population.

Misconception that Project is Permanent

The commenter alleges that the project is permanent, which is not an accurate characterization. The project has an expected life of 20-30 years, which corresponds with the useful life of the equipment that would be installed. This useful project life could be extended by replacing or retrofitting equipment in the future. The duration of the site's useful life will ultimately be dictated by commercial realities – i.e., if the owner is able to secure power purchase agreements or otherwise develop a way to profitably operate the site for additional time beyond the initial 20-30 year interval, the project would be left in place. Otherwise, the project would be decommissioned and converted to another land use.

The lead agency is of the opinion that potential project impacts have been fully disclosed and adequately analyzed under CEQA, therefore no further analysis with respect to urban decay is required.

- 7-K The commenter alleges that the DEIR fails to adequately analyze and mitigate for risks of widespread abandonment of solar projects.

As discussed in DEIR Section 4.9, *Land Use and Planning*, potential land use impacts require evaluation on a case-by-case basis. This is true with regard to land use compatibility impacts, which are generally a function of the relationship between the interactive effects of a specific development site and those of its immediate environment. In addition, with approval of all discretionary requests, the proposed project would be an allowable use that would not conflict with the land use or zoning classification for the sites. The proposed project is required to have a decommissioning plan backed by financial assurances, as stipulated in the proposed Mitigation Measure MM 4.9-1. The requirement of having a County-approved decommissioning plan and financial assurances are tied to the CUP, an entitlement that is attached to the land, not the property owner. As such, even if the project is sold, each owner would be required to adhere to the same decommissioning plan and financial assurance requirements. The commenter offers no evidence that solar facilities as opposed to any other development project are more likely to be abandoned if they failed or become obsolete. Mitigation measures related to the decommissioning of utility-sized solar facilities is included as a requirement of all proposed solar projects in Kern County, not just this project, in order to establish safeguards to ensure the maintenance of the health, safety, and welfare of the citizens of the County. Therefore, it has been determined that with implementation of the proposed mitigation, cumulative land use impacts related to abandonment would be considered less than significant.

Additionally, as with any project operating with approval of a conditional use permit, the project operator is obligated to comply with all mitigation measures and conditions of approval as approved by the decision-making body (i.e., the Planning Commission and/or the Board of Supervisors). As noted in the Kern County Zoning Ordinance *Article V. Discretionary Permit Decisions by the Board of Supervisors*, 19.102.020, any permit, conditional use permit, variance, or zone modification issued pursuant to this chapter may be modified or revoked by the official or decision-making body that originally approved the permit by the same procedure under which the permit was issued for any of the following causes:

- A. That any term or condition of the permit, conditional use permit, variance, or zone modification has not been complied with.
- B. That the property or portion thereof subject to the permit, conditional use permit, variance, or zone modification is used or maintained in violation of any statute, ordinance, law, or regulation.
- C. That the use for which the permit, conditional use permit, variance, or zone modification was granted has been so exercised as to be detrimental to the public health or safety or as to constitute a nuisance.

- D. That changes in technology or in the type or amount of development in the vicinity of the use or other good cause warrants modification of the conditions of operation or imposition of additional conditions of operation to assure that the use remains compatible with existing and potential uses of other property within the general area in which the use is located.

The potential for the abandonment of other solar projects is outside of the scope of the DEIR and is not required under CEQA. However, it is anticipated that other solar projects would have the same or similar requirements regarding decommissioning and financial assurances. The financial assurance options are adequate and are routinely used for other projects such as mining operations by Kern County.

The lead agency is of the opinion that potential project impacts have been fully disclosed and adequately analyzed under CEQA, therefore no further analysis or revisions are required

- 7-L The commenter contends that the DEIR fails to adequately address impacts to golden eagles and wildlife movement corridors; improperly defers mitigation for permanent impacts to western burrowing owls; improperly defers mitigation for impacts to desert tortoise, western burrowing owl, and Mohave ground squirrel; fails to adequately mitigate cumulative impacts to biological resources; and fails to provide monitoring of avian collision fatalities. Each of these comments is addressed below.

The DEIR Fully Analyzes Potential Project Impacts to Golden Eagles

The commenter alleges that the DEIR fails to adequately assess impacts to golden eagles because its conclusions regarding the potential for the project site to provide foraging habitat for nesting golden eagles are unsupported. As noted in the DEIR, Section 4.3 *Biological Resources*, the analyses were based on a number of studies prepared by qualified biologists specifically for this project. The DEIR's conclusions regarding potential project impacts to golden eagles are fully supported in the analysis provided in Section 4.3 *Biological Resources*, page 4.3-17 and the Biological Technical Report (BTR) (DEIR Appendix D) cited therein. The presence of golden eagle nest sites and the potential for foraging on the Project site was fully analyzed in the DEIR. The BTR also includes a full analysis of potential Project impacts to golden eagles (see pages 38 to 40).

As described in the DEIR (page 4.3-32), between June 2 and June 7, 2011, an intensive raptor nest inventory and aerial surveys covering over 252,304 acres was conducted to document nest locations and nesting status of golden eagles. The surveys were conducted in accordance with the United States Fish and Wildlife Service (USFWS) Interim Golden Eagle Inventory and Monitoring Protocols. The DEIR, page 4.3-37, then analyzed the project's potential direct and indirect impacts to golden eagles, including loss of foraging habitat and interference with reproductive success due to noise and human activity.

An additional focused, ground-based data collection program with surveys for golden eagle was conducted between May 23 and June 16, 2012. (*See Beacon Photovoltaic Solar Energy Project Focused Golden Eagle Survey Results – June 2012 – CH2M Hill, July 13, 2012 – hence worth referred to as the “2012 Survey Report”*) This 2012 Survey Report was finalized after release of the DEIR, and is provided in Attachment 3 of the Final EIR. This program coincided with the active period for golden eagles when fledglings are feeding and eagle pairs

are foraging. Surveys occurred for 14 days during a 30-day period, and no eagles were observed in the area of the Project site. (*See* 2012 Survey Report, page 4 [Attachment 3 of this Final EIR]). The 2012 survey results further support the findings discussed in the DEIR.

The DEIR, BTR and the two golden eagle survey reports also analyze the vegetation on the Project site for its potential to provide a prey base for golden eagles. The 2012 Survey Report concluded that the Project site does not support suitable foraging habitat or prey base for golden eagles based on the following factors: (1) the project site has been disturbed by historic agricultural practices and is currently dominated by desert salt bush species; and (2) in those areas where Mojave Desert wash scrub, mixed desert shrub and creosote exist on the Project site, this desert vegetation is a less preferable food source for black-tailed jackrabbits (a key prey species for golden eagles) than the areas of creosote bush that occur elsewhere in the vicinity of the Project site. (*See* 2012 Survey Report at page 4 [Attachment 3 of the FEIR]).

While the DEIR acknowledges that raptors, including golden eagles, may conduct some foraging on the project site, there is no evidence that if converted to a solar facility, impacts on golden eagles would be significant due to the fact that there golden eagles have not been seen foraging onsite, are using the project site for foraging, and the golden eagle foraging habitat on the project site is of low quality.

The DEIR Fully Analyzes Potential Project Impacts to Wildlife Movement Corridors

The commenter contends that the DEIR's conclusion that the project will not impact wildlife movement corridors is faulty because the commenter disagrees with the factual evidence upon which that conclusion relies. The commenter, however, provides no scientific or even factual evidence to refute the information and evidence upon which the DEIR relies for its conclusions. The DEIR and the BTR [Appendix D to the DEIR] fully analyze the potential for wildlife to use corridors across the project site for wildlife movement. The analysis concludes that the project site does not have features that would be used as wildlife corridors (DEIR Section 4.3 *Biological Resources*, pages 4.3-52 to 4.3-53; BTR, pages 47 to 48). The vegetated wash within the central section of the project site, and its accompanying vegetation, disperses at the northern boundary of the project site, which limits its utility for cross-site movement of wildlife. The wash running along the western side of the railway line is degraded and devoid of natural wash vegetation, making its value as a corridor low (DEIR Appendix D, BTR, pages 47 to 48). No other existing linear features occur within the project that could provide a corridor for wildlife movement. An existing, degraded chicken wire fence currently encompasses most of the project site, which provides an additional barrier to wildlife movement through the site (*Id.* at 48). Finally, open space will remain to the east and south of the project site, thereby facilitating wildlife movement around the solar facility site, as noted in the DEIR, page 4.3-53. All of these factors support the DEIR's conclusion that the Project will not impact wildlife movement corridors.

The DEIR Provides Appropriate Mitigation for Permanent Impacts to Western Burrowing Owls

The commenter contends that the DEIR improperly defers mitigation for western burrowing owls by failing to identify suitable land parcels as compensation land. There is nothing in CEQA that requires identification of specific parcels of compensation land in an EIR. CEQA

Guideline 15126.4(a)(1)(B) provides that “formulation of mitigation measures should not be deferred until some future time. However, measures may specify performance standards which would mitigate the significant effect of the project and which may be accomplished in more than one specified way.” Cal. Code Regs., tit. 14, Section 15126.4. Once an agency has evaluated potentially significant impacts of a project and identified measures that will mitigate those impacts, the agency does not have to commit to any particular mitigation measure in the EIR. The details of exactly how mitigation can be achieved can be determined at a later date. See *California Native Plant Society v. City of Rancho Cordova*, 172 Cal. App. 6th 603, 621, 91 Cal. Rptr. 3d 571, 586 (2009) (citing *Sacramento Old City Assn. v. City Council*, 229 Cal. Ap. 3d 1011, 280 Cal. Rptr. 478 (1991)). Section 4.3, *Biological Resources* Mitigation Measure MM 4.3-16 describes the requirements for compensatory mitigation for western burrowing owls, if they are found onsite, and requires that such mitigation be in accordance with California Department of Fish and Game guidance, which is published and readily available. This measure further describes the specific requirements that must be met for a mitigation land management plan. The DEIR therefore fully complies with CEQA requirements for fully describing required mitigation for western burrowing owls, and does not improperly defer mitigation with respect to western burrowing owls.

The DEIR Provides Appropriate Mitigation for Impacts to Desert Tortoise, Western Burrowing Owl, and Mohave Ground Squirrel

The commenter also contends that the DEIR improperly defers mitigation for desert tortoise, western burrowing owl and Mohave ground squirrel by failing to identify specific parcels of compensation land to be included in a Habitat Mitigation and Monitoring Plan for these species. As discussed above, CEQA does not require identification of specific parcels of compensation lands in the EIR. Rather, it requires only that the specific characteristics of that land, or performance standards, be included in proposed mitigation measures. MM 4.3-17(a) fully describes the performance standards that must be met for lands to be considered adequate compensation lands, and MM 4.3-17(b) includes four specific performance standards that must be met in the Habitat Mitigation and Monitoring Plan. There is no improper deferral of mitigation for desert tortoise, western burrowing owls or Mohave ground squirrels.

The DEIR Provides Adequate Mitigation for Cumulative Impacts to Biological Resources.

The commenter contends that the County must require that land area equal to the project area must be purchased and managed in perpetuity as habitat for special status species to compensate for cumulative impacts to biological resources. The DEIR includes adequate mitigation for cumulative impacts to biological resources. Those measures include MM 4.1-4, MM 4.3-1 through MM 4.3-23, MM 4.5-2, MM 4.7-1, MM 4.8-1, MM 4.8-2 and MM 4.8-3. While the lead agency concluded that a significant cumulative biological impact remains, based on the loss of habitat for primarily transient species that may use habitat at the project area when combined with habitat loss resulting from the large number of other alternative energy projects proposed for the County, there is nothing in CEQA that mandates that the lead agency require this project to mitigate those impacts in the manner proposed by the commenter. This is especially so where, as here, the impacts to sensitive species are small and the amount of habitat actually being used by those species is even smaller. CEQA

requires that the project be adequately analyzed and that its environmental and health impacts are mitigated to the fullest extent feasible. The proposed mitigation measures satisfy CEQA, and also satisfy the Kern County General Plan Policy 9 by providing mitigation for the cumulative impacts to biological resources.

There is no Evidence To Suggest That Monitoring of Avian Collision Fatalities Is Necessary

The commenter has failed to provide any scientific or biological basis for its assertion that avian collision fatalities with photovoltaic panels are likely to occur or are significant, and therefore post-construction fatality monitoring should be required. With respect to the transmission lines, MM 4.3-23 requires compliance with the 2006 Avian Power Line Interaction Committee (APLIC) guidelines to ensure that avian collisions are avoided. The lead agency notes that the California Department of Fish and Game did not raise this concern (see Response 4), and therefore does not believe that there is any justification, based on available scientific evidence, for the commenter's assertion that post-construction monitoring is necessary to determine whether avian collisions are occurring.

Based on the information presented above, the lead agency is of the opinion that potential project impacts related to biological resources have been fully disclosed, adequately analyzed and appropriately mitigated to the extent feasible under CEQA, therefore no further analysis or revisions are required except for clarification as noted above.

7-M The commenter states that the DEIR and its supporting documents fail to provide any documentation to substantiate the 66 percent reduction in the project's PM₁₀ emissions during the construction phase. In addition, the commenter states that no rationale is provided in the DEIR on why estimates of NO_x emissions from project construction are lower than other comparably sized solar projects, and that the DEIR fails to adequately analyze air quality impacts of the project, particularly PM₁₀ and NO_x.

A detailed Air Quality and Greenhouse Gas Report prepared for this project (see Appendix C.2 of the DEIR). The commenter offers no evidence or data, and provides no specific problem with the calculations to substantiate the basis for the claim that air quality impacts are not adequately addressed in the DEIR. DEIR Section 4.2 *Air Quality* pages 4.2-26 to 4.2-27 provide a discussion of the methodology used to analyze the construction emissions of the project. The methodology discussion states that the project would be subject to Eastern Kern Air Pollution Control District (EKAPCD) Rule 402 during construction, and that the project's fugitive dust emissions after compliance with Rule 402 were estimated by applying a 68 percent control efficiency to the project's calculated fugitive emissions. In the follow-up memorandum to the Air Quality and Greenhouse Gas Report prepared for the project (see Appendix C.1 of the DEIR), it is indicated that the 68 percent control efficiency is consistent with existing standards.

The application of a 68 percent control efficiency for the project's fugitive PM₁₀ emissions during construction can be substantiated by the findings presented in the Western Regional Air Partnership's (WRAP) Fugitive Dust Handbook (http://www.wrapair.org/forums/dejf/fdh/content/FDHandbook_Rev_06.pdf). The fugitive dust control efficiencies for defined control measures presented in this document have been cited and used by air quality districts in California, such as the South Coast Air Quality

Management District (SCAQMD). The specific PM₁₀ control efficiencies of the various control measures that are required under EKAPCD Rule 402, which includes control measures implemented for construction operations, unpaved roads, materials handling, etc., are all presented throughout the WRAP document.

Proposed Dust Control Measures and Control efficiency for Beacon PV Project

Source	Mitigation Measure	SCAQMD Recommended Efficiency*
Main access road and parking area	(1) Pave; or (2) stabilize using soil binders - prior to initiating construction in the main power block area	(1) 92.5 - 99% (2) 45 - 85%
Unpaved roads and parking area	(1) Apply water 2x daily (2) Apply water 3x daily, or non-toxic soil stabilizer per manufacturer's specifications	(1) 55% (2) 45-85%
Disturbed site areas	(1) Apply water 2x daily (2) Apply water 3x daily	(1) 34 - 68% (2) 45 - 85%
Unpaved road travel	Limit traffic speed to ≤10 mph on unstabilized unpaved areas within the site, and ≤ 25 mph on stabilized unpaved roads	40-70%
Mud/dirt trackout	Inspect and wash equipment vehicle tires as necessary to be cleaned free of dirt prior to entering paved roadways.	40 - 70%
Mud/dirt trackout	Provide gravel ramps of at least 20 feet in length at the tire washing/cleaning station. Gravel or treat all unpaved exits from the construction site to prevent track-out to public roadways. All construction vehicles to enter the construction site through the treated entrance roadways.	42 - 80%
Paved roads	Sweep all paved roads within the construction site daily or as needed (less during periods of precipitation) on days when construction activity occurs.	25 - 60% (daily) 16 - 26% (14-day frequency) 9% (once/month frequency)
Storage piles and inactive disturbed areas	Cover, or treat with appropriate dust suppressant all soil storage piles and disturbed areas that remain inactive for longer than 10 days	30 - 80%
Soil/bulk material	All vehicles that are used to transport solid bulk material on public roadways and that have potential to cause visible emissions shall be provided with a cover, or the materials shall be sufficiently wetted and loaded onto the trucks in a manner to provide at least one foot of freeboard.	7 - 91%
Storage piles and disturbed areas	Apply wind erosion control techniques (such as windbreaks, water, chemical dust suppressants, and/or vegetation) on all construction areas that may be disturbed	4 - 90%
<p>Note * - The control efficiency range is derived from different references (different references provide different efficiency for the same measure)</p> <p>References –</p> <ol style="list-style-type: none"> 1. SCAQMD CEQA Handbook, 1993 update 2. http://www.aqmd.gov/ceqa/handbook/mitigation/fugitive/MM_fugitive.html 		

As indicated in the table above, the application of water alone during various intervals to disturbed areas within a construction site can achieve PM_{10} control efficiencies between 61 percent and 74 percent; where soil moisture of 12 percent is achieved by watering for earthmoving activities, a PM_{10} control efficiency of 69 percent can be achieved; where on-site vehicle speeds are limited to 15 miles per hour, a PM_{10} control efficiency of 57 percent can be achieved; where dust suppressants are applied to disturbed areas, PM_{10} control efficiency of 84 percent can be achieved; where the speed on unpaved roads is limited to 25 miles per hour, a PM_{10} control efficiency of 44 percent can be achieved; etc. Thus, given the various reductions in fugitive PM_{10} emissions that can be achieved by the application of the numerous dust control measures required under EKAPCD Rule 402, an overall control efficiency of 68 percent is reasonable for the project's fugitive PM_{10} emissions. Furthermore, it should be noted that while compliance with EKAPCD Rule 402 alone would result in less-than-significant PM_{10} emissions during construction, the project would nonetheless also implement Mitigation Measures MM 4.2-1 through MM 4.2-4, which are listed on pages 4.2-29 through 4.2-32 of the DEIR, to further reduce the less-than-significant PM_{10} emissions of the project during construction. These mitigation measures would reduce the project's construction PM_{10} emissions beyond what is required under EKAPCD Rule 402.

The commenter notes that the estimated NO_x emissions during construction of the project are lower than the construction-generated NO_x emissions of several other solar projects and that a revised DEIR must be prepared with revised NO_x emission calculations. The commenter lists mitigation measures that he believes should be required if NO_x emissions exceed Eastern Kern Air Pollution Control District CEQA significance thresholds for NO_x emissions. This comment implies that the estimated emissions for the project must be wrong since they are lower than some other projects, but does not provide any specifics on how Beacon's estimate is incorrect.

There are a number of factors that may affect estimated air quality emissions of a proposed project. The commenter does not identify any specific evidence that there are errors in the calculation in the DEIR or Appendix C.2.

There may be various reasons why other solar projects have higher annual NO_x emissions during construction, such as the use of model defaults rather than the use of refined project construction information in the emissions modeling, greater requirement for cut and fill or grading operations at the construction site, shorter construction schedules (resulting in more intensive construction activities), overlapping of numerous construction phases, etc. However, it is beyond the scope of this EIR to present a comparison of the project's construction NO_x emissions with other solar projects in Kern County to provide a rationale as to why its NO_x emissions would be lower than those of other solar projects, and doing so would be a speculative effort.

With respect to this project's construction NO_x emissions, the methodology on how the emission calculations were performed is discussed on pages 4.2-26 and 4.2-27 of DEIR Section 4.2 *Air Quality*. In addition, a more detailed and thorough discussion of the methodology, including the disclosure of all assumptions used in the emissions calculations, along with the computer model inputs and outputs are included in Appendix C.2 of the DEIR. The Air Quality and Greenhouse Gas Report prepared for the proposed project and presented as Appendix C.2 of the DEIR provides a clear and detailed account of all assumptions and

steps that were taken to calculate the construction emissions of the project. The lead agency also notes that EKAPCD did not comment on the DEIR. Based on the information presented above, the lead agency is of the opinion that project impacts related to air quality have been fully disclosed, adequately analyzed and appropriately mitigated to the extent feasible under CEQA, therefore no further analysis or revisions are required except for clarification as noted above

7-N With regard to the assertion that the proposed project would contribute to significant cumulative impacts to toxic chemicals related to cadmium telluride (CdTe), as stated on DEIR Section 4.7, *Hazards and Hazardous Materials*, page 4.7-4 current CdTe PV modules pass federal leaching criteria for non-hazardous waste, which means they would not pose a risk for cadmium leaching if placed in a landfill. Additionally as discussed in DEIR Section 4.7, *Hazards and Hazardous Materials*, page 4.7-17, it has been demonstrated that standard operation of CdTe PV systems does not result in cadmium emissions to air, water, or soil. CdTe releases are unlikely to occur during accidental breakage of the PV panels. Similarly, fire damage would not result in the release of CdTe. The CdTe PV panels do not pose a threat to nearby residences. The use of CdTe PV modules at the project site would not result in human or aquatic exposure of cadmium. The commenter provides research article, *Fate and Transport Evaluation of Potential Leaching Risks From Cadmium Telluride Photovoltaics* (P. Sinha et al, 2012, see Attachment 5), which further substantiates the appropriate less than significant impact determination of the DEIR. The study states that cadmium telluride (CdTe) thin film photovoltaic (PV) modules have the lowest life cycle carbon footprint and fastest energy payback time of current PV technologies. Additionally, the study indicates that under normal operation, CdTe PV modules do not pose a threat to human health or the environment due to their construction. The study evaluates the worst-case scenario to estimate potential exposures to Cd compounds in soil, air or groundwater. The results show that exposure point concentrations in soil, air, and groundwater are one to six orders of magnitude below human health screening levels, indicating that is highly unlikely that exposures to these media would pose potential health risks to onsite workers or off-site residents. Additionally, releases into the aquatic environment could occur after decommissioning only if such modules end up in municipal landfills and the materials leach out. However, cadmium telluride is encapsulated between two sheets of glass and is unlikely to leach to the environment under normal conditions. No atmospheric emissions of CdTe can occur under any foreseeable conditions.

The DEIR analysis includes a discussion of applicable federal, state, and local regulations and guidelines that apply to the implementation of the project, including the Hazardous Materials Release Response Plan and Inventory Act, Hazardous Waste Control Act, and Unified Hazardous Waste and Hazardous Materials Management Regulatory Program (see pages 4.7-5 through 4.7-13 for a discussion of applicable rules and regulations). Moreover, Impact 4.7-1 and 4.7-2 as well as Mitigation Measures MM 4.7-1 through MM 4.7-4 (pages 4.8-16 through 4.8-19) address the potential for the reasonable upset and accident conditions involving the release of hazardous materials into the environment. The Draft EIR determined that the project's potential for accidental release of hazardous materials would be less than significant with implementation of mitigation measures that require preparation of a Hazardous Materials Business Plan (Mitigation Measure MM 4.7-1). The lead agency is of the opinion that the analysis of the potential of accidental release of hazardous materials is adequate and no new analysis is required.

Therefore, development of a solar facility with CdTe PV modules at the project site would not have the potential to combine with other past, present, and reasonable projects, to result in a cumulative impact related to CdTe, and impacts are anticipated to be similarly less than significant. The lead agency also notes that the Kern Environmental Health Services Division or Waste Department, CalRecycle or any other responsible agency did not comment on the DEIR. Based on the information presented above, the lead agency is of the opinion that project impacts related to hazards and hazardous waste, specifically CdTe, have been fully disclosed, adequately analyzed and appropriately mitigated to the extent feasible under CEQA, therefore no further analysis or revisions are required.

- 7-O The commenter suggests that treatment of locally sourced groundwater for panel washing is not discussed in the DEIR and that treatment will require a waste discharge permit with the use of an evaporation pond. The commenter states that the DEIR provides no discussion of the water treatment and that the DEIR should be revised to include Report of Waste Discharge permit and any potential impacts. The commenter also claims that the DEIR does not identify where panels will be placed within jurisdictional waters.

With regard to treatment of groundwater for panel washing, page 3-21 of DEIR Chapter 3-*Project Description*, states that “water for panel washing is expected to come from existing on-site wells after treatment using portable demineralization equipment.” Treatment would be accomplished through portable packaged wastewater treatment equipment, which is a pre-fabricated method of treating wastewater with a combination of filters and demineralizers. Typically water is run sequentially through a fine filter, cation exchange vessel, anion exchange vessel, and a mixed bed demineralizer to produce a high quality water. All vessels on the portable trailer would be regenerated and backwashed offsite at the equipment provider’s facility. Consequently, there would not be any wastewater discharges onsite, nor would the use of evaporation ponds be required at the project site. The final effluent used for panel washing would be of high quality and, as mentioned on page 4.8-19 of DEIR Section 4.8, *Hydrology and Water Quality*, solar panel washing would be infrequent and unlikely to result in any runoff offsite.

With regard to waste discharge requirements, as discussed on page 4.3-26 of DEIR Section 4.3, *Biology*, fill placement within jurisdictional Waters of the State, would be “required [to] obtain authorization through an Order of Waste Discharge or waiver thereof from the RWQCB and comply with other requirements of Porter-Cologne Act.” In addition, as stated on page 4.8-12, any fill work necessary to construct the crossings “will comply with all pertinent regulations.” For clarification purposes, the following text change to the second paragraph on page 4.8-12 of the DEIR is made:

The total impact will be minimal from these crossings and will comply with all pertinent regulations which may include a Waste Discharge permit for dredged or fill discharges to jurisdictional waters obtained from the Lahontan Regional Water Quality Control Board.

With regard to placement of panels within jurisdictional waters, as discussed in Section 4.8, *Hydrology and Water Quality* (page 4.8-12), no panels or solar facility structures would be placed within high-flow areas as determined in the hydrology study for the 100-year event, in addition to avoidance of the Pine Tree Creek wash. Therefore, since no panels or structures are proposed within jurisdictional waters there is no need for a Report of Discharge Waste

other than what might be required for fill placement associated with the proposed crossings as discussed, above. As such, the potential impact related to waste discharge requirements and jurisdictional waters is less than significant. It is noted that the responsible agencies such as the State Water Resources Control Board (SWRCB) or Regional Water Quality Control Board (Lahontan RWQCB), US Army Corps of Engineers or CDFG did not comment on this issue. The lead agency is of the opinion that potential project impacts to hydrology and water quality have been adequately analyzed under CEQA and therefore there is no need to revise the DEIR, except for clarification as noted above.

7-P The commenter contends that the DEIR fails to establish a baseline for soil conditions and assess potential pesticide and herbicide-related impacts related to construction workers and residents in the area. The commenter notes that project construction will require earthwork and states that a Phase I Environmental Site Assessment (ESA) should be conducted for the project site to evaluate past pesticide use.

A series of Phase I ESAs were prepared for the project plant site and transmission line corridor in 2007 to 2008 as additional parcels were purchased for the project, and these reports are included in Attachment 2 of the Final EIR as follows:

- Phase I Environmental Site Assessment of The Fremont Valley Ranch, Highway 14, Kern County, California ;
- Phase I Environmental Site Assessment of 80 Acres of Desert Land, Fremont Valley, Near Highway 14, Kern County, California ;
- Phase I Environmental Site Assessment of 20 Acres of Desert Land, Fremont Valley, Near Highway 14, Kern County, California;
- Phase I Environmental Site Assessment of 14.39 Acres of Desert Land, Fremont Valley, Highway 14, Kern County, California;
- Phase I Environmental Site Assessment of 97.75 acres of Desert Land, Highway 14, Fremont Valley, Kern County, California

According to these Phase I ESAs, there is no evidence of pesticide misuse on the project site and no recognized environmental conditions related to pesticide use were identified; therefore, soil sampling pursuant to a Phase II ESA is not warranted. Furthermore, as noted in Response 7-I, the site has not been used for agriculture since the mid-1980s, and any remaining pesticide residue is highly unlikely. The use of pesticides and the potential for asbestos-containing materials that may be uncovered during construction was discussed in DEIR Section 4.7, Hazards and Hazardous Materials, Impact 4.7-2. However, Mitigation Measure MM 4.7-2 requires the appropriate use and application of pesticides for weed control, and MM 4.7-3 would require the all work at the project sites to halt if asbestos materials were uncovered, so that a proper assessment can be made of the suspect materials. It was determined that with implementation of MM 4.7-2 and MM 4.7-3 impacts related to hazards during construction and operation would be reduced to less than significant levels.

Additionally, the initial Phase I ESA notes that two underground storage tanks (USTs – one gasoline tank and one diesel tank) were identified on site, and were considered to be a potential recognized environmental condition. These tanks were subsequently removed from the project site in 2011. A UST Removal Report, including the results of soil sampling around the USTs, was prepared by Beacon Solar, LLC and submitted to the Kern County Division of Environmental Health, and is also included in Attachment 2 of this Final EIR. In

addition to the removal of the two USTs, site restoration activities on the project site included the removal of a residence, maintenance facility, four duplex apartment buildings, seven dilapidated mobile homes, and several debris piles. Upon completion of the restoration activities, a Site Restoration Report was prepared in November 2011 and is included in Attachment 2 of this FEIR. The Kern County Division of Environmental Health issued a letter stating that the UST removal report was approved and no further action would be needed (see Appendix G of the Site Restoration Report in this FEIR Attachment 2).

Based on the information presented above, the lead agency has determined that project impacts related to hazard and hazardous materials have been fully disclosed, adequately analyzed and appropriately mitigated to the extent feasible under CEQA, therefore no further analysis or revisions are required

7-Q The commenter summarizes CEQA Guidelines Sections 15130 and 15355 which address CEQA's requirement for an EIR to discuss cumulative impacts. The commenter also presents a summary of CEQA court cases in which courts made rulings regarding the need of cumulative impact analysis in EIRs and cases that determined the cumulative analysis for a given impact in previous EIRs from other lead agencies were inadequate. The commenter questions why 24 projects were included for analysis of cumulative impacts and suggests that several other existing and proposed projects located in Kern County should be included in the cumulative analysis of the EIR. The commenter suggests that a cumulative analysis that includes these additional projects will likely result in significant cumulative impacts to water usage, air quality, agricultural production and toxic chemicals (specifically related to cadmium telluride).

With regard to the need to address cumulative impacts, cumulative impact discussions for each environmental topic area addressed in the EIR are provided at the end of each technical analysis contained within Chapter 4, under "Impacts and Mitigation Measures." Cumulative projects addressed in the EIR for the proposed project are listed in Chapter 3, *Project Description*, Table 3-4 and shown on Figure 3-10.

With regard to the number of projects included for cumulative analysis, as set forth in CEQA Guidelines Section 15355, "The cumulative impact from several projects is the change in the environment which results from the incremental impact of the project when added to *other closely related* past, present, and reasonably foreseeable probable future projects"(emphasis added). As such, the lead agency developed the cumulative projects list presented on page 3-26 of the DEIR by identifying all projects within six miles of the proposed project as well as all proposed and approved solar projects located within the Kern County portion of the Mojave Desert air basin. The most relevant projects to the cumulative analysis for the proposed project are other solar energy projects. Several new wind and/or solar developments are currently proposed in Kern County and are listed in Table 3-4 and shown on Figure 3-10 of the EIR. This EIR generally considers cumulative impacts of projects within six miles; however the nature of impacts under certain issue areas requires consideration of projects outside this range. The cumulative analysis presented in the EIR does not consider projects proposed in the San Joaquin Valley Air Pollution Control District or projects that the lead agency has rejected for development.

With regard to the assertion that the proposed project would contribute to significant cumulative impacts to water usage, as presented in DEIR Chapter 3, *Project Description*, (pages 3-20 and 3-21), water for construction and operation would be supplied by on-site wells that access the Koehn subbasin. As discussed in DEIR Section 4.8, *Hydrology and Water Quality* (page 4.8-20), the proposed project would require 304 acre-feet of water during the 22-month construction period and 405 acre-feet of water over the expected 30-year life of the project. The total water use during the construction period of the proposed project and another proposed project within the Koehn subbasin, Nautilus Solar Energy Park, expected to use a minimal amount of water, which is an insubstantial reduction in the annual recharge to the Koehn subbasin when compared to the estimated total volume of natural recharge to the basin. Additionally, impacts to the Koehn subbasin water supply from the proposed Fremont Valley Preservation Water Bank and Solar Project are anticipated to be similarly less than significant. Given these projects anticipated minimal water usage, the amount rainfall and subbasin recharge rates, and the expected impact to water recharge within the Koehn subbasin would be considered less than significant.

With regard to the assertion that the proposed project would contribute to significant cumulative impacts to air quality, the analysis of cumulative air quality impacts presented in Section 4.2, *Air Quality*, (pages 4.2-40 through 4.2-44), determined that construction emissions from the proposed project would combine with emission from other past, present, and reasonably foreseeable projects to result in a significant and unavoidable cumulative impact with respect to VOCs, NO_x, and PM₁₀. The Planning Commission (or, if necessary, the Board of Supervisors) may approve, approve with additional conditions, or not approve the proposed project at the scheduled hearing. If the Planning Commission (or, if necessary Board of Supervisors) approves the project, or approves with conditions, the lead agency would be required to prepare a Findings of Fact (per State CEQA Guidelines Section 15091) and Statement of Overriding Considerations (per State CEQA Guidelines Section 15093) that outlines why, in the view of the Planning Commission (or the Board of Supervisors), that the benefits of the project outweigh the environmental costs, including the cumulative impacts to air quality. The Statement of Overriding Considerations considers the economic, legal, social, technological, and other benefits of the project against its unavoidable risks in determining whether to approve the project. If the specific economic, legal, social, technological, and other benefits of the project outweigh the unavoidable adverse environment effects of the project, then the adverse environmental effects may be considered “acceptable.”

With regard to the assertion that the proposed project would contribute to significant cumulative impacts to agricultural production, the lead agency notes that the proposed project site has not been used for agricultural production for nearly 30 years. Therefore, development of a solar facility on the project site would have no impact to agricultural production and therefore would not have the potential to combine with impacts related to agricultural production from other past, present, and reasonable projects, and therefore would not contribute to a cumulative impact. See also Response 7-I, above.

- 7-R The commenter indicates that the Beacon PV Project D EIR should have considered a reduced scale alternative, an alternative that avoids seismic and flood hazards, and an alternative that avoids cadmium telluride panels. The analysis of these new alternatives can be found as a revised Chapter 6, on pages 7-9 through 7-23 of this FEIR.

The DEIR analyzed a No Project Alternative, a General Plan Buildout Alternative, and a No Utility-Solar Development – Distributed Commercial and Industrial Rooftop Solar Only Alternative. (See DEIR page 6-6). These additional alternatives were not required to be analyzed because, as discussed below, CEQA does not require analysis of alternatives that do not avoid or substantially lessen a project’s significant environmental impacts, and in the case of the Beacon PV Project, the alternatives proposed by the commenter, including but not limited to a reduced scale alternative, would not avoid or substantially reduce significant impacts.

An EIR must contain a reasonable range of feasible alternatives to the project, or to the location of the project, which can attain most of the project’s objectives and would avoid or substantially lessen any of the project’s significant effects. Pub. Res. Code § 21100(b)(4); 14 Cal. Code. Regs § 15126.6(a). The selection of alternatives to be discussed in an EIR is governed by the rule of reason. *Id. See also Laurel Heights Improvement Association v. Regents of the University of California (1988) 47 Cal.3d 376*. An agency may eliminate from consideration alternatives that do not avoid or substantially lessen the project’s significant environmental impacts. *Mann v. Community Redevelopment Agency (1991) 233 Cal.App.3d 1143, 1150-51*.

An EIR is required to include a reasonable range of alternatives. However, to satisfy that requirement, a project is not obligated to include an alternative that will not substantially reduce or avoid the project’s significant impacts. In *Tracy First v. City of Tracy (2009) 177 Cal.App.4th 912*, a case involving a proposed specific plan amendment and conditional use permit to build a 95,900 square foot WinCo Foods store, the petitioners argued that the project EIR’s range of alternatives was insufficient because it did not include a “reduced-store-size” alternative. The court rejected this argument as “without merit” because the record did not establish that “a reduced-size alternative would substantially diminish any of the significant environmental impacts of the project.”

The Tracy First EIR concluded that the proposed store would cause two significant impacts – on air quality and traffic. The court found that the record did not support petitioner’s claim that impacts to air quality and traffic could be diminished by building a smaller store: “There is no evidence in the record that fewer customers would patronize the WinCo Foods store if the store were smaller. Thus, we can only speculate that traffic would be lighter. Tracy First offers only its ‘presumption’ that air quality would be improved over the project as planned, but we have no way of knowing whether that is true or, if it is true, how significant that improvement would be.” *Id.* at 929. Consequently, the court found that the petitioners had failed to show that the alternatives analyzed did not present a reasonable range.

Likewise here, no evidence exists to support the conclusion that the proposed additional alternatives would substantially reduce or avoid the project’s significant environmental impacts. Therefore there is no legal requirement that these alternatives be analyzed. Nonetheless, for informational purposes only, the lead agency has added an analysis of these alternatives to the Final EIR. The analysis in the Final EIR demonstrates that these alternatives will not substantially reduce any of the project’s four significant environmental impacts: visual impacts (both project-specific and cumulative), cumulative air quality impacts during construction and cumulative biological impacts.

Discussion of these additional alternatives does not require recirculation of the DEIR. The CEQA Guidelines require recirculation only when “significant new information” is added to an EIR after the DEIR is released for public review but before certification of the FEIR. Cal. Pub. Res. Code § 21092.1; 14. Cal. Code Regs § 15088.5(a.). Analysis that is provided only for informational purposes (and that is not legally required) does not qualify as significant new information. Discussion of alternatives that are neither feasible nor would clearly lessen the project’s environmental impacts does not require recirculation.

The commenter further states that the EIR incorrectly considers the environmentally superior alternative (Alternative C: No Utility-Solar Development – Distributed Commercial and Industrial Rooftop Solar Only) as infeasible; however, this is an incorrect conclusion reached by the commenter. If the lead agency found that Alternative C were impractical or infeasible, it would not have been provided as a viable alternative to the project, and would have been dismissed in Section 6.4, *Alternatives Eliminated from Further Consideration*. However, the lead agency considered this a feasible alternative, and therefore conducted a full analysis of its environmental impacts, as compared to the proposed project. The commenter states that the EIR dismisses this alternative as “impractical or infeasible,” however, this conclusion is taken out of context. The full text in the EIR is as follows, regarding Alternative C:

“Given the size of the proposed project, the project objectives, and the need to arrange a suitable assemblage of participating commercial and industrial properties, it is impractical and infeasible to propose a distributed generation project of this type and still proceed within a reasonably similar timeframe.”

The above text, when considered in context, shows only that the alternative would be impractical and infeasible within a reasonable timeframe, given the scale of the proposed project. It does not render the alternative altogether infeasible. It is not necessary for the EIR to establish an exact timeframe for this alternative to evaluate its environmental effects and identify it as a feasible environmentally superior alternative. Reference to a timeframe for implementation is only provided for comparative purposes.

The commenter incorrectly states that the lead agency is “required to select the Environmentally Superior Alternative if it would avoid significant impacts and meet Project objectives and is feasible.” This is an incorrect interpretation of CEQA Guidelines. The EIR is required to *identify* an environmentally superior alternative, other than the No Project alternative, as stated in CEQA Guidelines 15626.6(e)(2), which it has done on page 6-18 of the DEIR. The ultimate decision on how or if the project will move forward (approval or rejection of the proposed project CUP or selection of a project alternative) will be made by the Kern County Planning Commission and Board of Supervisors, who may select the proposed project, or any of the alternatives (including the Environmentally Superior Alternative), based on their review of all available information provided in the EIR, including public comments received and supporting materials in the administrative record. Further, as described in Section 15043 of the CEQA Guidelines, the lead agency may approve a project even though the project would cause a significant effect on the environment, if the agency makes a fully informed and publicly disclosed decision that: (a) there is no feasible way to lessen or avoid the significant effect; or (b) specifically identified expected benefits from the project outweigh the policy of reducing environmental impacts. If the lead agency does

approve the proposed project, Findings will be required under Section 15091 of the CEQA Guidelines, and because the EIR identifies impacts to aesthetics, air quality, and biological resources that would remain significant and unavoidable even after mitigation, a Statement of Overriding Considerations would be prepared identifying that economic, legal, social, technological, or other benefits, including region-wide or statewide environmental benefits, outweigh unavoidable adverse environmental effects (see CEQA Guidelines Section 15093).

- 7-S The commenter asserts that the DEIR should consider how the proposed project and the alternatives will impact ratepayers. The concern appears to focus on whether or not uneconomical renewable energy projects will be constructed.

The CEQA environmental review process is intended to evaluate a project's environmental impacts and inform the appropriate decisionmakers and the public about those impacts. The potential effect of a solar electrical generation facility to ratepayers is not considered an environmental impact, and is therefore beyond the scope of a CEQA EIR document. The California Public Utilities Commission is the appropriate regulatory body and forum to discuss potential impacts to ratepayers, not a CEQA document.

Although not a CEQA issue, it is unknown and therefore speculative as to how or if the project and alternatives would affect ratepayers. It is anticipated that the proposed 250 MW project would not substantially affect ratepayers as 250 MW is very small proportion of electrical power when compared to the total electrical output available to ratepayers in California. Furthermore, the proposed project is being developed with private funding, and not by the rate payers; no public funds were used to finance this project.

However, if approved, the project would employ an estimated 385 construction workers for approximately 22 months, and maintain a staff of between 5 and 10 permanent employees for long-term operations and maintenance activities. Employment of construction personnel would be beneficial to local businesses and the regional economy through increased expenditure of wages for goods and services. Personnel for construction would be drawn from local population, creating new temporary employment in these counties. A number of construction personnel would purchase food, beverages, and other commodities, which would provide additional economic benefit to the local economy. This project is anticipated to contribute approximately \$18 million in property, sales and use taxes over the expected 30-year lifetime of the project.

- 7-T The commenter states that the county should prepare and recirculate a supplemental EIR.

A recirculated DEIR is not warranted as substantial new information has not been presented since the DEIR was released for public review. A recirculation of the DEIR is also not warranted, as the commenter has failed to provide credible evidence or establish grounds to warrant such an action. The commenter's comments are appropriately addressed in the response to comments section of the Final EIR. Based on the information presented above, the lead agency has determined that project environmental impacts have been fully disclosed, adequately analyzed and appropriately mitigated to the extent feasible under CEQA, therefore no further analysis or revisions are required except for clarifications as noted in this Final EIR.

7-U The commenter concludes that the project DEIR is wholly inadequate and requires significant revision, recirculation and review. The commenter also restates various assertions made throughout the letter.

The lead agency notes that the commenter provided no evidence or corroborative data to substantiate the necessity to revise or recirculate the DEIR. As noted in the previous responses (Responses 7-H through 7-T), the DEIR thoroughly disclosed, discussed and analyzed the potential environmental impacts of the proposed project based on technical reports and studies prepared by qualified individuals, and proposed feasible mitigation measures to reduce those impacts as required under CEQA. The DEIR was circulated to responsible agencies and as noted above, recommended clarifications and modifications were proposed as noted in this FEIR,

The Planning Commission (or, if necessary, the Board of Supervisors) may approve, approve with additional conditions, or not approve the proposed project at the scheduled hearing. If the Planning Commission (or, if necessary Board of Supervisors) approves the project, or approves with conditions, the County would be required to prepare a Findings of Fact (per State CEQA Guidelines Section 15091) and Statement of Overriding Considerations (per State CEQA Guidelines Section 15093) that outlines why, in the view of the Planning Commission (or, if necessary, Board of Supervisors), that the benefits of the project outweigh the environmental costs, including the impacts to aesthetics, biological resources, and cumulative, short-term construction-related impacts to air quality. The Statement of Overriding Considerations considers the economic, legal, social, technological, and other benefits of the project against its unavoidable risks in determining whether to approve the project. If the specific economic, legal, social, technological, and other benefits of the project outweigh the unavoidable adverse environment effects of the project, then the adverse environmental effects may be considered “acceptable.”

Therefore, the lead agency has determined that the Draft EIR has adequately analyzed and discussed these potential environmental impacts and proposed sufficient mitigation measures to reduce impacts as required under CEQA, and revision, recirculation and/or a supplemental DEIR is not warranted.

7-V The commenter states that the letter is divided into two parts: one part covers topics that the commenter thinks should be addressed in the DEIR and the second part addresses the commenter’s proposed changes to the mitigation measures. The comment is noted for the record.

7-W The commenter alleges that the DEIR does not adequately address urban decay. Please see Response 7-J above for a response to the comment on urban decay.

7-X The commenter contends that the DEIR must analyze the project’s potential to cause cumulative impacts with relation to the lifespan of the project, decommissioning plan requirements of other projects, financial assurances, and implementation of the project’s decommissioning plan. Please refer to Response 7-K.

7-Y The commenter provides a description of the proposed project and states that the DEIR fails to adequately disclose potentially significant impacts related to workers and offsite receptors and contends that a revised DEIR should be prepared. This comment does not provide a basis

for why a revised DEIR should be prepared. The comment is noted for the record. See also Response 7-N and 7-P.

7-Z The commenter alleges that the air quality impact analysis needs to be revised and that a revised DEIR should be prepared. Please see Response 7-M.

7-A2 The commenter provides opinions on the hydrology and water quality analysis of the DEIR. Please see Responses 7-N and 7-O.

7-B2 The commenter alleges that baseline soil conditions of the project site are not addressed. Please see Response 7-P.

Thank you for your comments. Your comments have been noted for the record and have been provided to the Kern County Planning Commission and Board of Supervisors for consideration.