



COUNTY OF SAN LUIS OBISPO

Department of Agriculture/Measurement Standards

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California Energy Commission (CEC)
Energy Facilities Siting Division
1516 Ninth St, MS-15
Sacramento, CA 95814

DOCKET

07-AFC-8

DATE DEC 30 2008

RECD. DEC 31 2008

RE: Docket No. 07-AFC-8 (Preliminary Staff Assessment)

Mr. Kessler:

The County of San Luis Obispo Agriculture Department (Ag Dept) appreciates the opportunity to review and comment on the preliminary staff assessment associated with the Carrizo Energy Solar Farm project. Ag Dept comments, attached, relate specifically to mitigating potential impacts to agricultural resources in both the area proposed for permanent conversion and the area with temporary construction-related impacts. Impacts include the permanent conversion of farmland, temporary impacts to farmland, and County General Plan policy inconsistencies relating to the location of improvements and non-agricultural groundwater use. All of these impact issue areas were noted in initial comments by the Ag Dept (March 20, 2008).

The enclosed comments and recommendations are based on policies in the San Luis Obispo County Agriculture and Open Space Element, the California Environmental Quality Act (CEQA), and on current departmental policy to conserve agricultural resources and to provide for public health, safety and welfare while mitigating the negative impacts of development to agriculture.

Please inform me when the Final Staff Assessment is released. Should you have any questions, you can contact me at 805-781-5753 or misensee@co.slo.ca.us.

Sincerely,

Michael Isensee
Agricultural Resource Specialist

cc: John McKenzie, Senior Planner, County of San Luis Obispo

Farmland Conversion

Significant Impact with Mitigation

The County of San Luis Obispo Agriculture Department (Ag Dept) concurs with the Preliminary Staff Assessment (PSA) finding that the conversion of 640 acres is a significant adverse impact and agrees that feasible mitigation such as permanent protection of other similar farmland is appropriate. However, the net result of the proposed project, even with implementation of Condition of Certification **LAND-1**, remains the permanent loss of over 640 acres of quality farmland. **LAND-1** will prevent future conversion of 640 acres of farmland on an as yet to be determined site. However, it will do nothing to avoid or reduce impacts to the agricultural resources on the proposed project site. The proposed permanent farmland protection associated with **LAND-1** is a form of partial compensatory mitigation and therefore appears to represent a feasible mitigation measure, but does not appear to reduce the significant impact associated with the permanent loss of farmland.

The Ag Dept recommends that the PSA discuss the rationale for the ratio of farmland conversion to farmland protection and explain how the impact has been mitigated to the extent determined to be practicable or feasible.

Loss of County Agricultural Resources

The PSA states (see, for instance, page 4.5-10, as well as the bottom of page 4.5.13) that the implementation of **LAND-1** will ensure that the Carrizo Energy Solar Farm (CESF) *does not contribute* to the loss of agricultural lands in the county. This appears to be factually inaccurate for two reasons.

First, the PSA clearly documents that 640 acres of farmland will be permanently converted. The mitigation does not avoid or lessen this conversion. Therefore, the CESF *will contribute* to the loss of agricultural lands in the county. As identified, mitigation implementing **LAND-1** would potentially provide protection to other farmland in the county, but this does not avoid or reduce the permanent loss of more than 640 acres of farmland.

Second, **LAND-1** specifically provides for the possible protection of farmland in other counties as mitigation for the loss of farmland in San Luis Obispo County. To mitigate for the loss of farmland in San Luis Obispo County, the mitigation should also occur within the county.

Farmland Mitigation Goals

The PSA assumes (see page 4.5-10) that implementation of **LAND-1** will result in the protection of agricultural lands of the same or higher quality, yet nothing in the condition specifies that the land to be protected offer similar or better quality agricultural resources (e.g. parcel configuration, soil quality, topography). The primary project site is a single 640-acre parcel of nearly flat ground, coupled with excellent soil quality, no significant impediments to agricultural use, and direct public road access. As with many areas in the county, there are limited water resources to sustain irrigated agricultural operations. However, the county has a long history of dry-farm hay and grain production, as well as rangeland and stubble grazing.

For these reasons, the Ag Dept recommends a mitigation measure that, at a minimum, fulfills the following goals:

- 1) Permanently protect at a minimum an equivalent amount of comparable farmland located within San Luis Obispo County located within a reasonable proximity of the project site utilizing an accepted farmland conservation mechanism or funding for a farmland conservation mechanism to

prohibit in perpetuity any non-agricultural activity that substantially impairs or diminishes the agricultural productivity of the land.

- 2) The farmland conservation mechanism or funding for a farmland conservation mechanism shall be granted for the benefit an entity listed in CA Public Resources Code 10212 et seq.; that is, “a city, county, nonprofit organization, resource conservation district, or a regional park or open space district or regional park or open-space authority that has the conservation of farmland among its stated purposes, as prescribed by statute, or as expressed in the entity’s locally adopted policies.” An appropriate easement holder or fee recipient should receive prior approval by the Compliance Project Manager.
- 3) A protected site should meet the following requirements on a minimum of 640 acres:
 - a) Consist of soils with a NRCS irrigated capability classification of 1 or 2 and non-irrigated capability of 4, although proof of adequate irrigation sufficient for 640 acres should not be required.
 - b) Not be encumbered or become encumbered with any other easement or other encumbrance which would preclude agricultural use including both crop production and grazing.
 - c) Incorporate protections equivalent to those found in the California Farmland Conservancy Program model easement. The model easement can be located at: http://www.conservation.ca.gov/dlrp/cfcp/overview/Pages/cfcp_model_easement.aspx.
- 4) The farmland conservation mechanism or funding for a farmland conservation mechanism should provide appropriate funds to compensate for reasonable administrative costs incurred by the easement holder including all land transaction costs and costs associated with ongoing administration, monitoring, and enforcement of the farmland conservation mechanism.

Application of County General Plan (Agriculture Policies)

The PSA correctly identifies *Agriculture Policy 24* as a relevant local land use policy (4.5-14), but does not appear to identify or discuss *Agriculture Policy 18: Location of Improvements* or *Agriculture Policy 11: Agricultural Water Supplies* or any of the County’s Open Space policies.

County Agriculture Policy 18 directs that new facilities and roads be located to protect agricultural land. As applied by the county, this policy generally limits non-agricultural uses to small portions of a site, seeks to locate improvements in an efficient manner to minimize the loss of productive agricultural land, and protect the county’s high quality soils. Short of locating the proposed facilities off of *Agriculture* designated land, the Ag Dept would not consider the proposed facility to be consistent with this policy.

The applicant’s proposed 380 acre “construction laydown” area also does not appear consistent with the policy’s directive to utilize farmland as efficiently and as compactly as possible. It appears that a more limited amount of farmland could be removed from productive farmland use in the laydown area, but inadequate information is provided about the rationale for needing 380 acres. The applicant’s Project Layout (Detail 1, Fig 1.1-4; URS, Supplemental Application for Certification, July 2008) provides limited detail about the “construction laydown” area. Based upon this figure, the applicant appears to utilize approximately 255 acres of the proposed area. However, many of the proposed use areas appear significantly larger than necessary (see table page 4). The remaining 125 acres of the 380 acre laydown area being taken out of agricultural use does not appear to have any clear proposed use during the construction phase.

Temporary Construction Laydown Area		
Use Area	Acres (approx.)	Notes
Restrooms	1	
Meal Room	3	Appears to be unnecessarily large.
Permanent Road	6	30 foot wide by 8,000+ linear feet
Manufacturing Building	7	As shown in Detail 1, Project Layout, page 1.4-1 in July 2008 submittal. The structure is described as 40,000 sq.ft. structure on page 4.5-4 of PSA. Includes <i>foundation</i>
Offices	8	Appears to be unnecessarily large. Unclear how much office facilities are proposed
Vehicle Parking	9	Appears to be unnecessarily large. Size is sufficient for 800 vehicles. Applicant proposes to transport employees (max. of 396) using up to 21 buses (PSA page 4.10-7)
Vehicle Marshalling	9	Unclear purpose. Appears to be unnecessarily large.
Fueling Station	32	Appears to be unnecessarily large. Includes <i>foundation</i>
Storage (various)	40	Not clear from project description how much land is needed for each of these uses
Assembly Area	64	
Staging Area	76	
TOTAL	255	

County Agriculture Policy 11 states that groundwater supplies are to be protected for production agriculture, both in quality and quantity. The State Department of Water Resources assessment of the groundwater basin determined an annual safe yield to be 600 AFY (DWR Bulletin 18, 1958). The County’s Master Water Plan identifies that the groundwater basin demand currently exceeds the safe yield. Approval of the proposed facility may exacerbate long term groundwater availability.

The project proposes to utilize approximately 21 AFY of groundwater on an ongoing basis. Therefore, the project proposes to utilize 3.5 percent of the total safe yield in the basin. While the PSA includes information showing the facility will utilize relatively little water compared to other power generating facilities, county policy is clear that groundwater resources in agricultural areas should be protected for agricultural uses rather than for industrial use.

The PSA also reaches the conclusion that increased runoff and reduced evapotranspiration will occur on the project site, resulting in increased groundwater recharge. The site’s soil, *Yeguas-Pinspring complex*, has a water holding capacity of 9.2 inches in the top 80 inches of soil (see attached map unit description from the NRCS). This means the site’s average annual rainfall (8 inches, according to PSA page 4.9-29) may be entirely “captured” by the site’s topsoil, and little or no recharge of the groundwater basin occurs. The project, with its proposed retention/detention basins, may provide some recharge. Without site-specific study of the soil, any recharge associated with the project appears speculative.

An appropriate mitigation measure to avoid utilization of groundwater resources would uphold county policy and would ensure the protection of groundwater for agricultural use. A mitigation measure could be to require the applicant to capture, retain, and utilize on-site precipitation.

Temporary Farmland Impacts

The PSA does not identify any potential impacts to farmland associated with the proposed 380 acres of “construction laydown” area. However, the construction laydown area includes a permanent 30 foot wide, 8,280 foot access road (approximately 5.7 acres) which is an additional permanent loss of farmland and additional farmland mitigation is appropriate.

The construction laydown area is farmland with similar capability to the 640 acres that will be permanently converted. Measures should be required to ensure that the site’s soil resources are protected during use of the construction laydown area and restored to their current farmland capability at the conclusion of construction. Specifically:

- In any areas where a foundation or concrete pad is proposed, the topsoil (soil horizon A) should be stockpiled for the duration of use of the laydown area. The stockpiled soil should be protected from erosion and then restored at the conclusion of facility construction.
- In any area where gravel will be utilized, an underlayment of durable, geotextile matting should be placed over the native soil prior to the placement of gravel/base material.
- In any area where construction materials will be stockpiled or manufacturing or assembly will occur, a similar geotextile membrane should be utilized to avoid any comingling or contamination of the soil with construction debris.
- All construction materials, concrete, road base, and geotextile membrane should be removed upon completion of the project.
- The entire “construction laydown” area’s soils should be restored to their pre-construction texture, available water holding capacity, soil permeability, and organic matter content. NRCS soils information provides details about the site’s native soil’s properties and is available at the NRCS website, <http://websoilsurvey.nrcs.usda.gov>. Post restoration, actual crop productivity should be equivalent to productivity on unimpacted farmland consisting of similar soils.

San Luis Obispo County, California, Carrizo Plain Area

310—Yeguas-Pinspring complex, 0 to 2 percent slopes

Map Unit Setting

Elevation: 2,000 to 2,300 feet
Mean annual precipitation: 8 to 10 inches
Mean annual air temperature: 57 to 63 degrees F
Frost-free period: 175 to 200 days

Map Unit Composition

Pinspring and similar soils: 40 percent
Yeguas and similar soils: 40 percent
Minor components: 20 percent

Description of Yeguas

Setting

Landform: Alluvial fans, alluvial flats
Landform position (two-dimensional): Footslope, toeslope
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Convex, linear
Parent material: Alluvium derived from sandstone, shale and basalt

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline (0.0 to 2.0 mmhos/cm)
Available water capacity: High (about 9.2 inches)

Interpretive groups

Land capability classification (irrigated): 2s
Land capability (nonirrigated): 4s
Ecological site: LOAMY BOTTOMLAND (R017XF071CA)

Typical profile

0 to 19 inches: Loam
19 to 35 inches: Clay
35 to 51 inches: Clay loam
51 to 62 inches: Gravelly coarse sandy loam

Description of Pinspring

Setting

Landform: Alluvial flats
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Talf

Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium derived from mixed rocks

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 5 percent
Maximum salinity: Nonsaline (0.0 to 2.0 mmhos/cm)
Available water capacity: High (about 9.1 inches)

Interpretive groups

Land capability classification (irrigated): 2s
Land capability (nonirrigated): 4s
Ecological site: LOAMY BOTTOMLAND (R017XF071CA)

Typical profile

0 to 14 inches: Loam
14 to 30 inches: Clay loam
30 to 39 inches: Sandy loam
39 to 60 inches: Loam

Minor Components

Thomhill, loam

Percent of map unit: 3 percent
Landform: Drainageways
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Dip
Down-slope shape: Linear
Across-slope shape: Concave

Polonio, loam

Percent of map unit: 3 percent
Landform: Alluvial fans
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Convex

Wasioja, sandy loam

Percent of map unit: 3 percent
Landform: Fan remnants
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Convex

Bellyspring, sandy loam

Percent of map unit: 3 percent

Landform: Hills, mountains
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Mountainflank, side slope
Down-slope shape: Convex, concave
Across-slope shape: Convex

Jenks, clay loam

Percent of map unit: 3 percent
Landform: Hills
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Convex

Yeguas, loam

Percent of map unit: 3 percent
Landform: Alluvial fans, alluvial flats
Landform position (two-dimensional): Footslope, toeslope
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Convex, linear

Unnamed area subject to flooding

Percent of map unit: 2 percent
Landform: Drainageways
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Dip
Down-slope shape: Linear
Across-slope shape: Concave

Data Source Information

Soil Survey Area: San Luis Obispo County, California, Carrizo Plain Area
Survey Area Data: Version 7, Jan 3, 2008