

# CARRIZO PLAIN PLANNING UNIT

## Carrizo Plain

### Existing Conditions & Uses

#### Overview

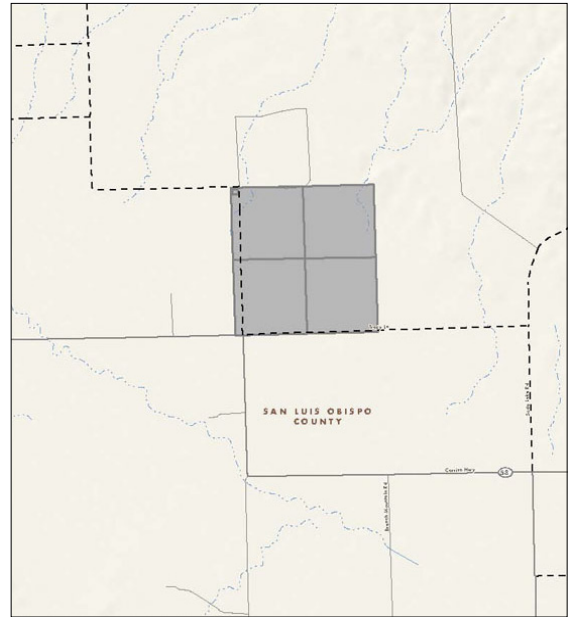
- About one square mile of cropland and grassland, much of which until recently supported a solar power generation facility, in a remote and lightly populated agricultural area
- 655 acres in San Luis Obispo County
- No FERC-licensed Project is associated with the parcels

The Carrizo Plain Planning Unit consists of a roughly one square mile section of flat to gently sloping grassland and cropland. It is in a semi-arid, lightly populated agricultural area at the north end of the Carrizo Plain, along Highway 58 (see Figure CP-1). The Carrizo Plain is an enclosed basin about 45 miles long from north to south and about 10 miles wide, situated between two low mountain ranges southwest of the San Joaquin Valley, between Bakersfield and San Luis Obispo. The elevation of the planning unit ranges between about 2,000 and 2,100 feet.

The small unincorporated community of California Valley is about six miles south of the planning unit. There are less than 500 residents in a few homes and in widely dispersed farms and



Barley field within the agricultural lease area



Carrizo Plain Planning Unit  
San Luis Obispo County

ranches in the area. The northern boundary of the 250,000-acre Carrizo Plain National Monument (CPNM) is located about eight miles south of the planning unit.<sup>1</sup>

PG&E purchased the planning unit lands for the Carrisa Plain Photovoltaic Power Plant, a demonstration solar energy facility built by ARCO Solar in the 1980s.<sup>2</sup> The facility operated between 1983 and 1994 and, at the time of its construction, was the largest utility photovoltaic system in the United States, generating about 6 megawatts (MW) of peak power. The facility was dismantled in the late 1990s and all of the solar panels, support pylons, and their foundations have been removed. A warehouse/shop building remains onsite.<sup>3</sup> A large water tank is near the building, and the facility had been connected to the local electric utility service. The former solar facility land is surrounded by a high chain-link fence topped by barbed wire. An electric substation that supported the solar facilities and that is currently in operation as a distribution substation is at the northwest corner of the site. The substation is surrounded by a security fence. Electric transmission lines cross the northern edge of the planning unit.

# Carrizo Plain Planning Unit

## Existing Conditions

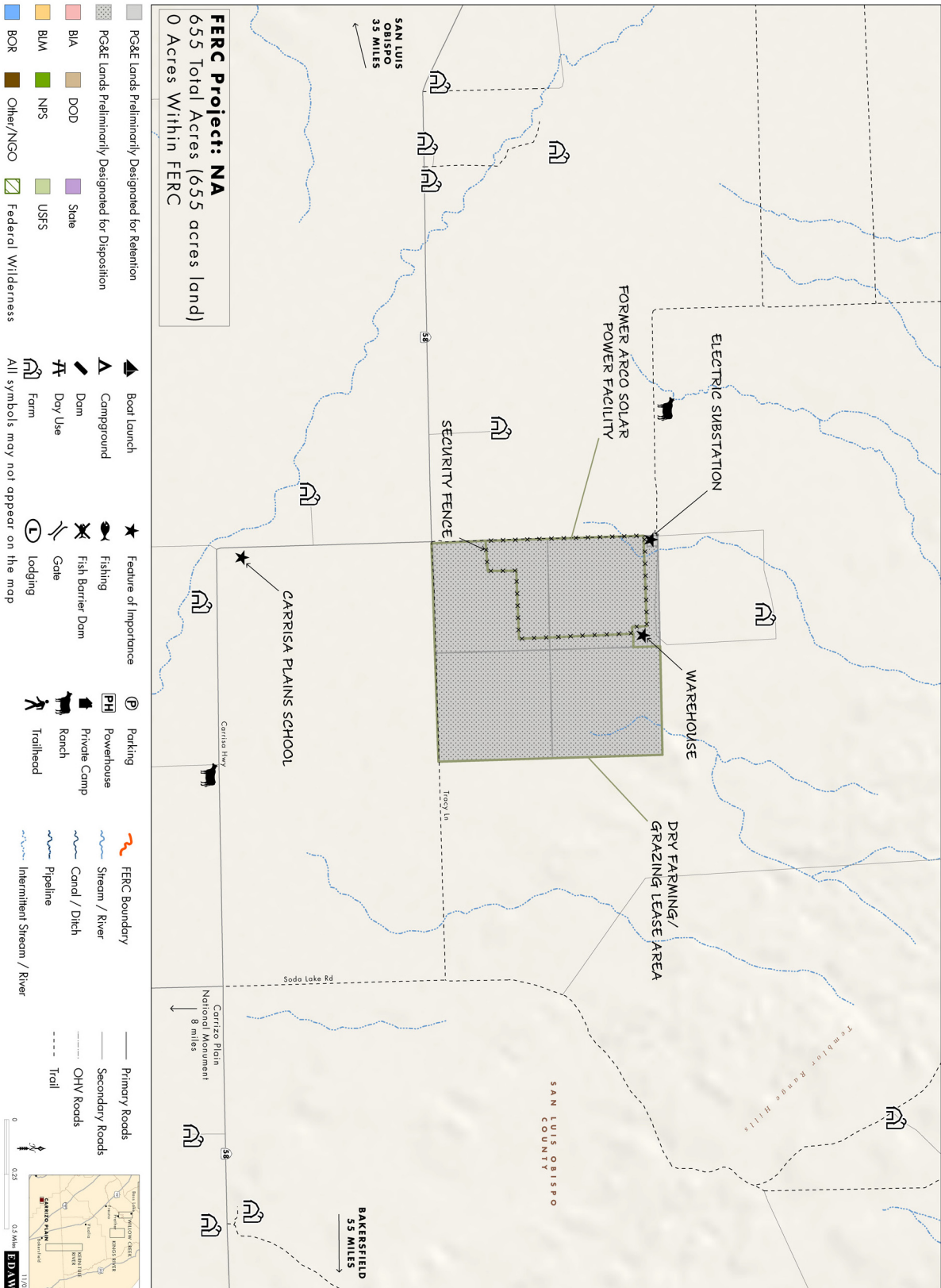


Figure CP-1

# CARRIZO PLAIN PLANNING UNIT

## Carrizo Plain

### Fish, Plant, and Wildlife Habitat

There is little information available on plant and wildlife species that might be present on the planning unit. Some of the numerous special status species of reptiles, mammals, and birds known to occur within the CPNM may occur on the planning unit (e.g., burrowing owl). The former industrial land use and current agricultural land use would limit habitat values of the lands, with reduced habitat richness and diversity as compared to less disturbed native perennial and non-native annual grasslands in the area. However, the land used for dryland crops provides habitat for rodents, which are prey to hawks, owls, and other predators.

Waterfowl may feed on new plant growth during the wet winter months, and deer, tule elk, and pronghorn antelope may forage in grain fields. Native plants and wildlife may have become re-established on the former solar facility land in the years since the facility was dismantled. During a July 2006 site visit, ground squirrels were frequently observed along the roads throughout the area, and barn owls and pigeons were roosting in the shop building, having access through a large garage-type door at one end that had been left open. Vultures, hawks, and crows were also observed several times in the vicinity and what appeared to be a raptor nest was observed on a power pole along a road that borders the planning unit.

### Open Space

The planning unit provides agricultural and grassland open space similar to that found on most of the surrounding lands and characteristic of the Carrizo Plain. Views across the lands are interrupted only by the security fence and the warehouse/shop building and electric substation at the northern edge of the planning unit.

### Outdoor Recreation

There are no recreation facilities in the planning unit and no known recreation uses. However, the CPNM attracts recreation visitors to the area and is open to hiking, picnicking, nature study, camping, and hunting.

### Forest Resources

There are no forest resources within the planning unit.

### Agricultural Uses

PG&E leases 440 acres of the planning unit (most of the land that was not occupied by the former solar facility) to a tenant for dryland (unirrigated) farming and cattle grazing. The property is on a summer fallow rotation, with barley planted every other year. After the barley harvest, cattle graze the crop stubble. The crop lands are surrounded by a barbed wire fence. PG&E reports that the agricultural tenant also dry-farms and grazes the former solar facility land, although no crops were observed on that portion of the lands during



Nest on power pole



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PG&E substation

the site visit, suggesting perhaps less regular agricultural use. The land appeared to have a sparse grass cover.

Nearly all of the northern Carrizo Plain surrounding the planning unit is utilized for agriculture, including cattle grazing and dryland farming. Several farmsteads, cattle paddocks, and similar agricultural facilities are in the area surrounding the planning unit. Grazing also occurs on a large portion of the CPNM, as part of a management program to restore native grasses.

### Historic Resources

There are no known cultural resources on the planning unit parcels. However, the Carrizo Plain area is within the ancestral territory of the Chumash Tribe, who inhabited the area from the Carrizo Plain west to the coast, and south to near present-day Los Angeles. The Chumash, as well as Salinan and San Joaquin Valley Yokuts, hunted the abundant game on the plain and had seasonal encampments there. A significant Native American cultural and sacred site is at Painted Rock, within the CPNM, one of the most important Native American pictograph sites in California. Today, the Federally recognized Chumash Tribe lives just outside Santa Ynez, about 120 highway miles from the planning unit. Other Native American groups who claim Chumash association are spread throughout the original Chumash territory.

## Stewardship Council Recommendations

The Stewardship Council recommends that the land and land uses at the Carrizo Plain Planning Unit be preserved and enhanced by focusing on habitat and cultural resources, recreation opportunities, as well as agricultural enhancements. In presenting the Recommended Concept provided here (see Figure CP-2), our objective is to preserve and enhance habitat, cultural resources protection, and open space resources, while also enhancing recreation opportunities and agricultural values. We recommend this effort be conducted in close coordination with PG&E.

**Objective: Preserve and enhance biological, cultural and agricultural resources, while preserving open space and investigating recreation opportunities.**

As shown on Table CP-1, the Stewardship Council has identified a number of preservation and/or enhancement measures that may contribute to the conservation management program for the Carrizo Plain Planning Unit. Additional detail and background regarding these potential measures can be found in the Supporting Analysis for Recommendations, provided under separate cover. These measures are intended to be illustrative in nature, not prescriptive, and will be amended, deleted, or augmented over time in coordination with future land owners and managers to best meet the objective for this planning unit.

### Fish, Plant, and Wildlife Habitat

**Objective: Preserve and enhance habitat in order to protect special biological resources.**

No data is available regarding wildlife or plant species that may occur in the planning unit; however, adjacent lands indicate that there is potential for planning unit lands to provide

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habitat for special status species. In order to preserve and enhance the habitat and resources found here, the Stewardship Council recommends that baseline studies and plans be developed to gain a clear understanding of the resources and to ensure their protection. These studies will likely be followed by management plans to ensure implementation of preservation and enhancement measures for specific resources. We also recommend investigating the potential for use of the warehouse/shop building in support of habitat restoration activities on the Carrizo Plain. The Stewardship Council encourages close coordination with resource-focused organizations working in the region.

### Open Space

**Objective: Preserve open space in order to protect natural and cultural resources, viewsheds, and agricultural land uses.**

This concept would preserve open space through permanent conservation easements. Conservation easements would describe all prohibited uses to maintain open space values, including the level of uses allowed and the requirement to maintain scenic qualities.

The removal of unused security fencing would help restore the appearance of the lands to that which exists in the surrounding agricultural area and would enhance the value of the lands as open space.

### Outdoor Recreation

**Objective: Assess opportunities to provide recreational facilities in order to provide recreation opportunities.**

The planning unit does not currently provide recreation opportunities. The Stewardship Council looks to potentially provide recreation opportunities on the site by investigating the potential for recreational use of the warehouse/shop building. This use could take the form of



Security fence surrounding the former solar facility

“bunkhouse style” lodging for groups wishing to stay in the area overnight, recognizing that there are few other lodging options for CPNM visitors. Coordination with the grazing lessee as well as an assessment of the suitability of this building for human use would need to be conducted.

### Agricultural Uses

**Objective: Preserve and enhance agricultural uses in order to support associated economic benefits, as well as to protect open space and habitat resources.**

Agricultural use is the primary use on the majority of the Carrizo Plain Planning Unit



Abandoned warehouse/shop

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and surrounding lands. PG&E leases over 400 acres of land within the planning unit to a tenant for dryland farming and cattle grazing. The Stewardship Council looks to preserve this resource and important economic use as part of the long-term management of the Carrizo Plain Planning Unit. To support this effort, as well as enhance habitat and open space, we recommend removing barriers to agricultural use of the former solar facility portion of the planning unit. We also recommend taking steps to restore uses to the warehouse/shop building that would support agricultural activities, potentially in conjunction with uses related to habitat restoration and recreation activities, particularly those associated with the CPNM.

### Preservation of Historic Values

**Objective: Document and manage cultural resources in order to ensure their protection if discovered in the future.**

This concept recommends measures to investigate potential ethnographic uses and to protect cultural resources given the high cultural importance of nearby sites on the Carrizo Plain. To ensure any cultural resources found within the planning unit in the future are protected and appropriately managed, we recommend that cultural resource protection measures be incorporated into conservation easements. These measures would describe the process for addressing any cultural materials found during ground-disturbing activities. We also recommend that an ethnographic study be conducted to identify traditional use areas that may be present. Throughout this effort, the Stewardship Council recommends close coordination with Native American entities.

### Endnotes

<sup>1</sup> The Carrizo Plain National Monument was designated in 2001 and is jointly administered by the BLM, the DFG, and The Nature Conservancy (TNC). The monument is primarily visited in the fall, winter, and spring and is managed for habitat preservation and

restoration, cultural resource protection, and recreation. The monument is known for spectacular spring wildflower displays, abundant bird life, and rare native species. Federally endangered species known to occur at the CPNM include blunt nosed leopard lizard, giant kangaroo rat, and San Joaquin kit fox.

<sup>2</sup> About 200 acres of the land was occupied by Phase I of the facility, which consisted of about 900 solar panels mounted on steel pylons. Future phases were planned for most of the remainder of the land, but were never built.

<sup>3</sup> The steel building covers an area of approximately 100 feet by 70 feet, and no obvious major exterior structural damage was apparent during a site visit. The interior is largely open, with small enclosed office spaces and a restroom along one side. There is apparent damage to the fiberglass insulation on the underside of the roof, which appeared to have been torn away by animals in several areas and littered the floor.



Water tank near abandoned warehouse/shop

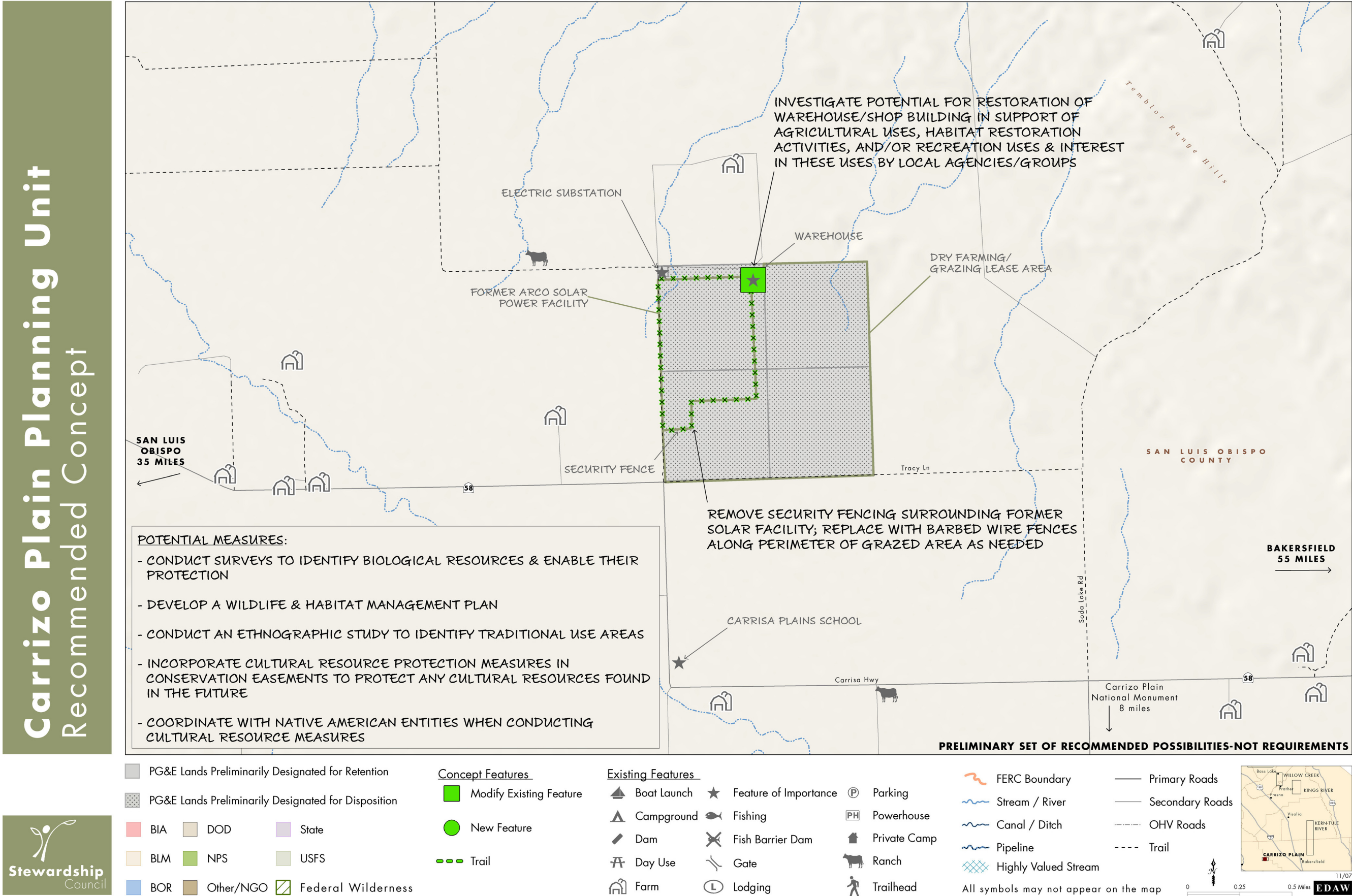


Table CP-1 Objectives to Preserve and/or Enhance – Recommended Concept

Planning Unit Objective: Preserve and enhance biological, cultural and agricultural resources, while preserving open space and investigating recreation opportunities.		
Beneficial Public Value	Objective	Potential Measures to Preserve and/or Enhance BPVs – Not Requirements*
Protection of the Natural Habitat of Fish, Wildlife, and Plants	<b>Preserve and enhance habitat in order to protect special biological resources.</b>	<ul style="list-style-type: none"><li>Conduct surveys of the planning unit to identify biological resources and enable their protection.</li><li>Develop a wildlife and habitat management plan for the planning unit.</li><li>Investigate the potential for restoration of the warehouse/shop building in support of habitat restoration activities on the Carrizo Plain and interest on the part of local agencies and groups in these uses.**</li></ul>
Preservation of Open Space	<b>Preserve open space in order to protect natural and cultural resources, viewsheds, and agricultural land uses.</b>	<ul style="list-style-type: none"><li>Apply permanent conservation easements to ensure a higher level of open space protection.</li></ul>
Outdoor Recreation by the General Public	<b>Assess opportunities to provide recreational facilities in order to provide recreation opportunities.</b>	<ul style="list-style-type: none"><li>Investigate the potential for restoration of the warehouse/shop building in support of recreation uses of the Carrizo Plain, and interest on the part of local agencies and groups in these uses.**</li></ul>
Sustainable Forestry		None proposed.
Agricultural Uses	<b>Preserve and enhance agricultural uses in order to support associated economic benefits, as well as to protect open space and habitat resources.</b>	<ul style="list-style-type: none"><li>Remove chain-link and barbed wire security fencing surrounding the former solar facility; replace with barbed wire fencing at the site margin as needed for agricultural uses.**</li><li>Investigate the potential for agricultural lessee use of the warehouse/shop building.**</li></ul>
Preservation of Historic Values	<b>Document and manage cultural resources in order to ensure their protection if discovered in the future.</b>	<ul style="list-style-type: none"><li>Conduct an ethnographic study to identify traditional use areas.</li><li>Incorporate cultural resource protection measures in conservation easements to protect any cultural resources found in the future.</li><li>Coordinate with Native American entities when conducting cultural resource measures.</li></ul>

\* This is a set of recommended possibilities for the preservation and enhancement of BPV’s, and is not intended to be a set of requirements for future land management.

\*\* Denotes site specific measure.





## Carrizo Plain Planning Unit

### Agricultural Uses

#### Potential Measure:

- *Remove chain-link and barbed wire security fencing surrounding the former solar facility; replace with barbed wire fencing at the site margin as needed for agricultural uses.*

The Stewardship Council recommends removal of the unneeded chain-link and barbed wire security fence surrounding the former solar power facility lands, which would eliminate a barrier to use of the land for dryland farming and grazing. Although the lessee apparently has access to the fenced area and grazes cattle there, along with the lease area, the fence is a hindrance to planting, harvesting, and grazing activities. Observations during a site visit in July 2006 suggest the fence is a limiting factor in agricultural use; unlike the lease area, the former solar facility lands were not planted in a grain crop, but had only a sparse grass cover. The DFG has indicated that removal of the fence could also benefit wildlife, particularly the native tule elk and pronghorn antelope that have been reintroduced on the CPNM and may use planning unit lands.

#### Potential Measure:

- *Investigate the potential for agricultural lessee use of the warehouse/shop building.*

The former warehouse and shop building represents the major infrastructure remaining onsite and may have the potential for re-use associated with restoration of agricultural use of the adjacent land, or other uses. Therefore, the Stewardship Council recommends investigating opportunities for re-use of the warehouse/shop building, which was in use for relatively few years and, superficially, appeared to be in reasonably good condition. Damage to the interior roof insulation was observed, and there appeared to be a gap in the roof at the south end of the building, but the overall structural integrity appeared sound and no vandalism was noted.

Hand-in-hand with an evaluation of the building would be a determination of what interest in future use of the building exists on the part of governmental agencies, Native American Tribes, conservation organizations, educational institutions, youth groups, or other groups, and what types of uses would be appropriate to enhance agricultural, habitat, or recreation values on the planning unit or on the larger Carrizo Plain. This determination would involve discussions with the agricultural lessee, the managing agencies of the Carrizo Plain National Monument (CPNM), conservation groups such as Friends of Carrizo Plain, the local school district, and universities in the area, such as the California Polytechnic State University in San Luis Obispo. Such use may have the potential to enhance agricultural use of the land, for example, by providing space for storing farm machinery.

### Outdoor Recreation

#### Potential Measure:

- *Investigate the potential for restoration of the warehouse/shop building in support of recreation uses of the Carrizo Plain, and interest on the part of local agencies and groups in these uses.*

The warehouse/shop building may also have potential for non-agricultural uses that would not be in conflict with the recommended agricultural use of the surrounding lands. Possible uses that would enhance BPVs might include storage, work, or meeting space in support of habitat restoration, recreation, and/or education on the Carrizo Plain. Given the remoteness of the area and lack of lodging, groups wishing to stay in the area overnight might be provided “bunkhouse” type sleeping quarters in the building. However, evaluation of the potential hazards and restoration potential of the building is necessary before any resumption of human use, beyond the agricultural storage use mentioned above, can occur. The assessment would include evaluation of the steps necessary to restore potable water, sanitary facilities, and electric service.

## **Fish, Plant, and Wildlife Habitat**

### **Potential Measure:**

- *Conduct surveys of the planning unit to identify biological resources and enable their protection.*

No data are available regarding wildlife or plant species that may occur on the planning unit. Although the agricultural lease area is primarily devoted to dryland grain crop production, fencerows and other undisturbed areas may host wildlife and non-crop plant species of value to wildlife, and wildlife may use the agricultural habitat of the cropland itself. Also, in the several years that have passed since the solar facility was dismantled, that portion of the planning unit has revegetated to some extent, and native wildlife may be using the area, including special status species known to occur elsewhere on the Carrizo Plain such as the San Joaquin kit fox, giant kangaroo rat, blunt nosed leopard lizard, or burrowing owl. Like the area surrounding the agricultural lease land, fencerows and relatively undisturbed roadsides around the former solar facility lands may provide plant and wildlife habitat. Recognizing the lack of available biological data and the potential habitat values, the Stewardship Council recommends conducting surveys of the planning unit to identify biological resources and provide needed information for future management decisions.

### **Potential Measure:**

- *Develop a wildlife and habitat management plan for the planning unit.*

The Stewardship Council recommends using the biological resource survey data to create a wildlife and habitat management plan. Once surveys are completed, potential habitat enhancements and restoration opportunities can be identified and developed into a plan describing goals and objectives for habitat and species, as well as measures to enhance and protect habitat for both plant and wildlife species. If surveys determine that sensitive species known to occur on the Carrizo Plain or other native plants and animals are present, the plan would specify agricultural use and practices on the planning unit that would best protect those species. For example, it is possible that the recommended expansion of agricultural use of the former solar facility lands may need to be restricted to meet habitat goals, by leaving some areas unplanted and by not conducting agricultural activities during certain periods of the year. Conversely, enhancement of raptor habitat in the planning unit may yield benefits for agricultural use by increasing control of rodents, which can cause crop damage.

### **Potential Measure:**

- *Investigate the potential for restoration of the warehouse/shop building in support of habitat restoration activities on the Carrizo Plain and interest on the part of local agencies and groups in these uses.*

There is a potential to provide roosting and/or nesting structures for barn owls to replace the roosting site that would be lost with any restored human use of the warehouse and shop building. Several raptor organizations such as the Raptor Trust and the Birds of Prey Foundation highlight the potential for enhancing habitat for barn owls in proximity to human activity, and provide designs for barn owl roosting and nesting boxes. These boxes may be attached to the outside of an existing structure such as the warehouse/shop building, or erected on a pole. However, managing for other sensitive species, such as the giant kangaroo rat or burrowing owl, if supported based on survey results and the wildlife plan, could require that conditions for barn owls not be enhanced to avoid conflicting purposes.

## **Preservation of Historic Values**

### **Potential Measures:**

- *Conduct an ethnographic study to identify traditional use areas.*
- *Incorporate cultural resource protection measures in conservation easements to protect any cultural resources found in the future.*
- *Coordinate with Native Americans and interested stakeholders when conducting cultural resource measures.*

No ethnographic uses of planning unit lands are known, and these may be unlikely given the current agricultural and former solar facility use of essentially the entire area, and the absence of any features that distinguish other ethnographic sites on the Carrizo Plain, such as rock outcroppings. However, given that no actual data are known to exist on these potential uses and the site's proximity to other very important Native American cultural sites within the CPNM, the Stewardship Council recommends conducting an ethnographic study of the planning unit to identify any traditional use areas that may exist. The Stewardship Council also recommends preserving cultural resources through permanent conservation easements that include cultural resource protection measures. These measures would describe the process for addressing any cultural materials found during ground-disturbing activities. The ethnographic study and development of cultural resource protection measures would be coordinated with Native American entities.

## **Open Space**

### **Potential Measure:**

- *Apply permanent conservation easements to ensure a higher level of open space protection.*

The Stewardship Council recommends preserving open space values through permanent conservation easements. Conservation easements would describe all prohibited uses to maintain open space values, including the level of uses allowed.



Removal of the security fence would also help restore the appearance of the lands to that which exists in the surrounding agricultural area and would enhance the value of the lands as open space. The enclosure of a large portion of the land by over one mile of this visually intrusive fencing detracts from the agricultural open space setting that characterizes the surrounding lands of the Carrizo Plain. The security fence on the north and west sides of the planning unit may need to be replaced with barbed wire fencing that is more typical of the agricultural lands in the area to permit continued grazing of the lands.

## **Sustainable Forestry**

None recommended.