5.18 Mandatory Findings of Significance

5.18.1 Environmental Impacts and Assessment

This section discusses mandatory findings of significance, as well as potential cumulative and growth-inducing impacts, related to the Sanger Substation Expansion Project (proposed project) proposed by Pacific Gas and Electric Company (PG&E, or the applicant). California Environmental Quality Act (CEQA) Guidelines Section 15065 requires that the lead agency determine whether the proposed project would have a significant effect on the environment. Table 5.18-1 contains the criteria for making the determination.

Table 5.18-1 Mandatory Findings of Significance Criteria

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a.	Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b.	Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☒	☐	☐
c.	Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

a. Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

Biological Resources

Areas impacted by construction and operation of the proposed project provide minimal foraging habitat for some special status bird species; abundant foraging habitat would still be available surrounding the project area and within range of such species. The proposed project therefore would not degrade environmental quality through habitat modification or substantially reduce the habitat of a fish or wildlife population to drop below self-sustaining levels.

The proposed project area is heavily modified agricultural land with no native plant species. Plants in the project area consist mainly of seasonal agricultural crops. The proposed project would not threaten to

eliminate a plant community. The area provides marginal foraging habitat for some general wildlife and potentially for some special status species; there is abundant similar land adjacent to the project area and in the immediate vicinity of the project area. The proposed project would not threaten to eliminate an animal community.

No special status plant species have been located on site or have the potential to be found on site. The proposed project would not substantially reduce the number or restrict the range of any rare or endangered plant species.

There is a moderate potential for Swainson's hawk *(Buteo swainsoni)* to occur in the project area. There is low potential for burrowing owl *(Athene cunicularia)*, loggerhead shrike (*Lanius ludovicanus*), San Joaquin kit fox *(Vulpes macrotis mutica)*, and white-tailed kite (*Elanus leucurus*) to occur in the project area. Observations of pallid bat (*Antrozous pallidus*) and western red bat (*Lasiurus blossevillii*) have not been reported within a 10-mile radius of the project area. As discussed in greater detail in Section 5.4, "Biological Resources," the applicant would implement Applicant Proposed Measures (APMs) as part of the proposed project; however, not all APMs were applied to reduce impacts. APM BIO-9 and APM BIO-11 were applied to reduce impacts to biological resources. APM BIO-9 would prohibit pets and firearms in the project area. APM BIO-11 would require inspection of excavation sites prior to backfilling and placement of structures.

Impacts to all species would remain significant even with these APMs. The applicant would be required to implement several mitigation measures as well, including Mitigation Measure (MM) BIO-1, which would ensure that all construction personnel are aware of the special status species in the area and the project commitments to reduce impacts; MM BIO-2, which would ensure that preconstruction surveys for special status species are performed prior to construction; MM BIO-3, which would ensure that special status species in the project vicinity are monitored to reduce disturbance by project activities to the fullest extent possible; MM BIO-4, which would ensure that a qualified avian biologist identifies any active nests prior to construction and would implement the appropriate nest buffers; MM BIO-5, which would reduce harassment and potential vehicle strikes of wildlife; MM BIO-6, which provides specific protocols for burrowing owl surveys; and MM BIO-7, which would describe protocols for Swainson's hawk specifically. With mitigation, the proposed project would not substantially reduce the number or restrict the range of any rare or endangered animal species. There are no known native wildlife nursery sites or migratory routes for any native resident or migratory fish or wildlife species in the project area. The proposed project would not fragment any wildlife habitat. The impacts would be less than significant after implementing the above-stated mitigation measures and APMs.

Cultural Resources

The proposed project would not eliminate important examples of major periods of California history or prehistory. There are no known resources in the project area that would qualify as important historical examples of this type. Though it is unlikely that such a resource would be discovered during excavation, there is potential for discovery. Damage to such a resource would be a significant impact. As discussed in greater detail in Section 5.5, "Cultural Resources," PG&E has proposed APM CUL-1 and CUL-3, respectively, to train workers on cultural resources in general and to outline the process to follow in the event that a cultural resource is discovered. Impacts would still be significant after implementation of these APMs. The applicant would be required to implement several mitigation measures, including MM CUL-1, which would supersede APM CUL-3 and require preparation of a Cultural Monitoring and Treatment Plan that has procedures for unanticipated discovery of resources, and MM CUL-2, which would supersede APM CUL-1 and would in part require training workers on cultural resources that may be encountered at the site. The proposed project would not eliminate important examples of major periods of California history or prehistory after implementation of mitigation. With the implementation of MM CUL-1 and MM CUL-2, impacts under this criterion would be less than significant.

b. Does the project have impacts that are individually limited, but cumulatively considerable?

Cumulative Impacts

A cumulative impact is when "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts" (CEQA Guidelines section 15355).

Cumulative Scenario

In discussing cumulative impacts, the CEQA Guidelines outline two approaches for characterizing projects that may occur in the vicinity of a proposed project:

1. **Project list:** A list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, projects outside the control of the agency (CEQA Guidelines section 15130(b)(1)(A)).
2. **Summary of projections:** A summary of projections contained in an adopted local, regional or statewide plan, or related planning document, that describes or evaluates conditions contributing to the cumulative effect (CEQA Guidelines section 15130(b)(1)(B)). This summary can be supplemented with additional information, including a regional modeling program.

This document uses both approaches, depending on which is more appropriate for the resource area being analyzed. The approach selected depends on the resource area and the nature and character of expected impacts. The rationale for selecting an approach is provided in the cumulative impacts discussion for each resource area.

Projects Considered

Table 5.18-2 includes a list of projects considered in the cumulative impacts analysis. The list in Table 5.18-2 was compiled by contacting local and state agencies regarding planned projects and projects currently under construction. PG&E was also queried to determine if they had any planned projects near the proposed project. The following agencies were queried:

- Fresno County
- City of Sanger
- U.S. Forest Service, Sierra National Forest
- California Department of Transportation (Caltrans)
- Federal Energy Regulatory Commission (FERC)

No Caltrans, FERC, U.S. Forest Service, or PG&E projects were identified for inclusion in the cumulative impacts analysis in this section. No projects were identified in the vicinity of the Fence Meadow Repeater Station; therefore, the antenna system component at the Fence Meadow Repeater Station was not evaluated for cumulative impacts in this section. Generally, projects within 5 miles were evaluated for inclusion in the cumulative impacts analysis. Projects carried forward for analysis in this section had to be probable future projects with impacts that would combine with impacts of the proposed project.

Table 5.18-2 Cumulative Project List

No.	Project Name	Project Description	Location and Distance from Existing Sanger Substation	Status
1	Royal Woods Subdivision - Phase 3	This subdivision includes the construction of 187 homes. The project also includes various improvements such as sidewalks, drainage facilities, water mains, utilities, and landscaping. The site is located on about 50 acres.	Northeast of intersection of East Jensen Avenue and South Indianola Avenue; 1.5 miles east of existing Sanger Substation	Under construction; as of October 2015, 74 lots had been completed. Phase 3 will include construction of 93 additional homes and will be completed by February 2017.
2	Agricultural Commercial Center (Fresno County CUP Application No. 3349)	This commercial center would include a gas station and market. The site would be located on about 1.8 acres.	Southeast of intersection of State Route 180 and McCall Avenue; 1.9 miles north of existing Sanger Substation	Approved: The project was approved in April 2014. There was no construction on the site as of March 2015. Construction schedule is unknown.
3	Vita Pakt Citrus Products Company Commercial Dehydrator Facility Expansion (Fresno County CUP Application No. 3497)	This project would involve almost 28,000 square feet of new buildings on about 4.4 acres for fruit and vegetable processing. The new building would replace about 31,000 square feet of existing facilities.	8898 East Central Avenue in Del Rey, California; 2.1 miles southwest of existing Sanger Substation	Approved. The project was approved in August 2015.
4	Rezone of AE20 to C2, and General Plan Amendment	This project would involve a general plan amendment and rezoning of 5.22 acres from agricultural use to commercial use for a community shopping center. Future uses could include retail, office, and public facilities.	East of North McCall Avenue, about 420 feet north of intersection with State Route 180; 2.0 miles north of existing Sanger Substation	Approved. The amendment was approved in 2014. There was no construction on the site as of March 2015. No known application for construction has been submitted.

Sources: Sheppard 2015; City of Sanger 2016b; Fresno County 2014a; PG&E 2015; Motta pers. comm. 2015; Fresno County 2014b; Google Earth 2015; Fresno County 2014c

The projects located near the proposed project were evaluated to determine whether they would contribute to a cumulatively significant impact and whether the proposed project would make a cumulatively considerable contribution to that significant cumulative impact. The locations of the cumulative projects are shown on Figure 5.18-1.

Not all projects are considered part of the cumulative scenario for all impacts. The potential for cumulative impacts on a given resource is in part dictated by geographic scope. For example, cumulative noise and vibration impacts are highly localized because both attenuate over distance. For each resource category, a geographic scope is given and applied to limit the list of projects considered in the cumulative impact analysis.

Cumulative Impacts

Resources with No Impacts

The proposed project would have no impact and would therefore not contribute to a cumulative impact on the following resources:

- Land Use and Planning
- Mineral Resources
- Public Services

These resource areas are therefore not discussed in this section.

Aesthetics

Aesthetic and visual resource impacts are project-specific and highly localized; therefore, the list approach was used to evaluate potential cumulative impacts. The geographic scope of cumulative impacts on aesthetics includes all areas where more than one project would be visible with the proposed project in the same public view. None of the cumulative projects are located within the same public view as the proposed project because all projects are at least 1.5 miles away from the proposed project across relatively flat land. Therefore, there would be no cumulatively significant impact.

Agriculture and Forestry Resources

The projections approach is used for agriculture and forestry resources, since these resources are in general managed at a regional level. The geographic scope of cumulative impacts on agriculture resources includes the entirety of Fresno County because agricultural resources are typically managed at the county level. Cumulative impacts for agriculture resources include lands designated as Prime Farmland and Farmland of Statewide Importance in Fresno County. The County of Fresno contains over 678,000 acres of Prime Farmland and over 404,000 acres of Farmland of Statewide Importance (CDC 2014).

The proposed project would not impact forestry resources (significance criteria (c) and (d)) and therefore would not contribute to a cumulative impact for these resources. The proposed project would not involve other changes that would result in conversion of forest land to non-forest use (significance criterion (e)) and therefore would not contribute to a cumulative impact for these resources. The proposed project would not conflict with a Williamson Act contract or agricultural zoning and therefore would not contribute to a cumulative impact (significance criterion (b)). Furthermore, no countywide impacts involving other activities that would result in conversion of agricultural land to non-agricultural use have been identified in the Fresno County General Plan; therefore, the proposed project would not contribute to a cumulative significant impact (significance criterion (e)). Significance criteria (b), (c), (d), and (e) are therefore not further discussed.

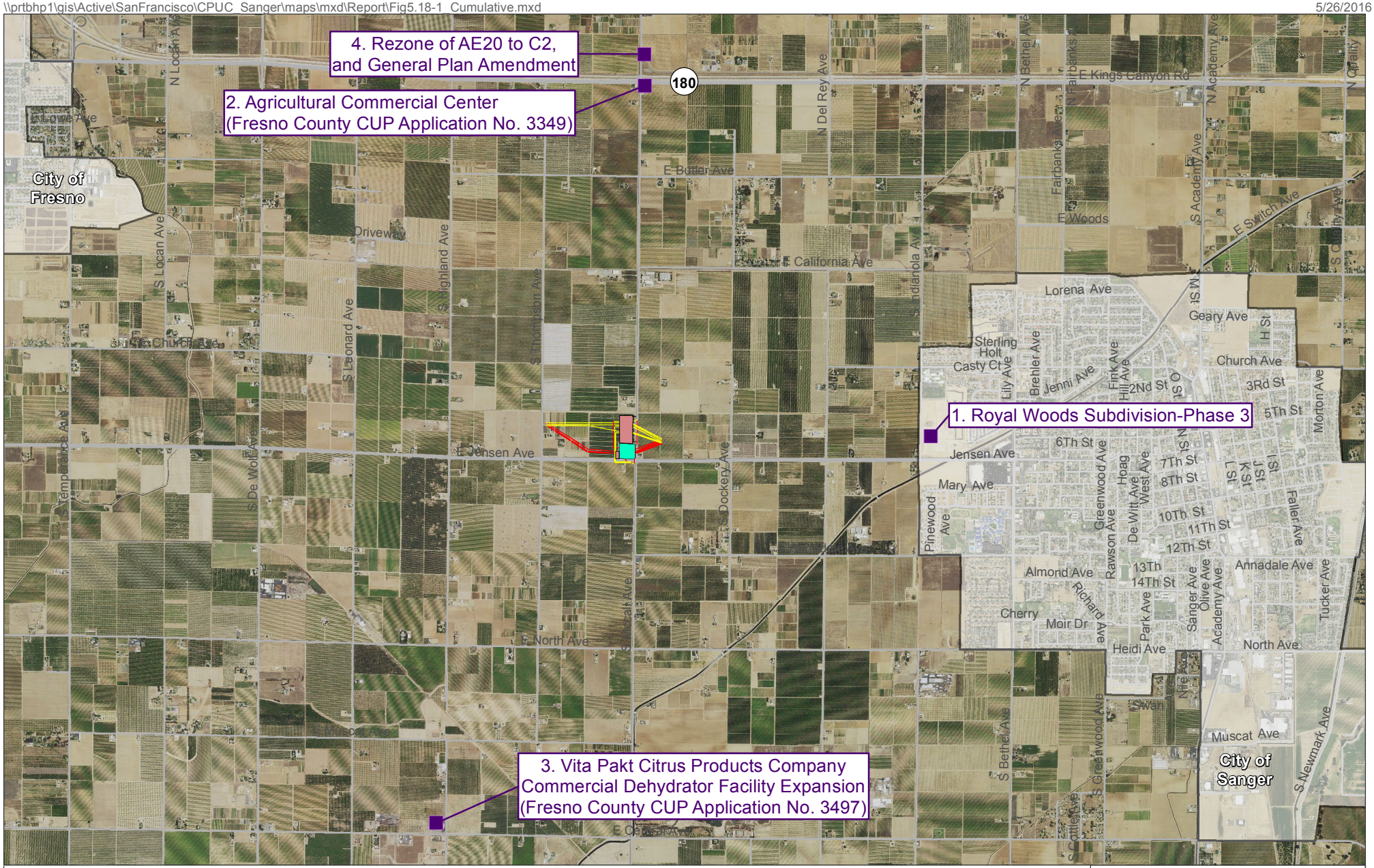

Figure 5.18-1
Locations of Cumulative Projects
Sanger Substation
Fresno County, CA

Construction and Operation and Maintenance

Construction of the proposed project would temporarily impact 21.84 acres of Farmland. Of this, 14.94 acres of Prime Farmland and 6.9 acres of Farmland of Statewide Importance would be disturbed. The proposed project would permanently disturb and convert 7.15 acres of land to non-agricultural use; 7.09 acres are designated as Prime Farmland, and 0.05 acres are designated as Farmland of Statewide Importance. The Fresno County General Plan Environmental Impact Report (EIR) states that, under the General Plan, up to 37,373 acres of prime and/or important farmland would be converted to urban land uses to the year 2020. Similarly, the loss of agricultural production is identified as a significant and unavoidable impact (Fresno County 2000). This represents a significant cumulative agricultural impact, and the proposed project would contribute to the significant cumulative impact through conversion of Farmland during construction and operation. However, the proposed project's contribution to the significant cumulative impact would not be cumulatively considerable. For mitigation of direct conversion impacts, the Fresno County General Plan EIR indicates policies related to:

- Residential development on agricultural land
- Minimum parcel size in agricultural areas
- Preference of siting uses in urban areas
- Directing urban growth away from agricultural areas
- Avoiding encroachment of and conflicts with incompatible land uses. (Fresno County 2000)

Mitigation listed in the General Plan EIR indicates that projects related to electric conveyance are not a key impetus for agricultural land conversion. Furthermore, substations are listed in the General Plan policies as an allowed use under certain conditions (Policy LU-A.3); Sanger Substation is an existing use, so the proposed project would be part of an already allowed use at the site consistent with the General Plan. Given that the proposed project is not of the type that is chiefly responsible for agricultural land conversion as indicated by General Plan Policies, and given the small acres temporarily and permanently converted to non-agricultural use by the proposed project, the proposed project would not make a cumulatively considerable contribution to agricultural land conversion (significance criterion (a)).

Air Quality

The list approach was used to determine localized air quality impacts, such as odor and exposure of sensitive receptors to substantial air pollutants. The geographic extent for exposure of receptors to substantial pollutant concentrations is 1,000 feet due to eventual dispersion of most diesel particulate matter at that distance from concentration of trucks (CARB 2005). There are no projects within 1,000 feet of Sanger Substation; therefore, the proposed project would not contribute to a cumulative exposure impact to sensitive receptors (significance criterion (d)). The geographic extent for odor impacts is 36 feet, given that is the maximum distance at which perception of diesel exhaust emissions can be perceived (Colucci and Barnes 1970). There are no projects within 36 feet of the substation sites; therefore, the proposed project would not contribute to a cumulative odor impact (significance criterion (e)). Significance criteria (d) and (e) are not further discussed.

To characterize basin-wide impacts, this analysis used a comparison to significance thresholds adopted by the San Joaquin Valley Air Pollution Control District (SJVAPCD), per the projections approach. The SJVAPCD has adopted several attainment plans that outline the long-term strategies designed to achieve compliance with National Ambient Air Quality Standards and California Ambient Air Quality Standards. According to the SJVAPCD (2015 par. 7.12, page 65), "projects with emissions below the thresholds of significance for criteria pollutants would be determined to 'Not conflict or obstruct implementation of the District's air quality plan.'"

Construction

Air quality emissions would be below significance thresholds for all criteria pollutants, as described in Section 5.3, "Air Quality," for significance criteria (a), (b), and (c). Construction of the proposed project therefore would not make a cumulatively considerable contribution to any significant air quality impact at the basin level (significance criteria (a), (b), and (c)).

Operation and Maintenance

There would be no increase in criteria pollutant emissions during operation and maintenance, as future operation and maintenance activities would be comparable to the existing activities, and the proposed project would be unstaffed, with no new permanent employees. Therefore, the proposed project would not contribute to a cumulative air quality impact (significance criteria (a), (b), and (c)) during operation and maintenance.

Biological Resources

The list approach was used for the biological resources cumulative analysis. The habitat in the surrounding area is highly homogenous, and the project area is limited in reach such that impacts are expected to be somewhat localized. The geographic scope of cumulative impacts on biological resources is 2 miles due to the largely homogenous agricultural surroundings. Therefore, there is abundant similar agricultural habitat in the vicinity. Furthermore, the impacts of the proposed project are minimal and not expected to result in impacts to sufficient wildlife individuals to have widespread effects. The Royal Woods Subdivision, an agricultural market project, and rezoning projects are located within 2 miles of the proposed project.

The proposed project would not impact any riparian habitat or sensitive natural communities; it would not contribute to a cumulative impact to sensitive natural communities (significance criterion (b)). The proposed project would not impact any federally or state projected wetlands; it would therefore not contribute a cumulative impact to wetlands (significance criterion (c)). The proposed project would not interfere with wildlife movement or migration; it would therefore not contribute to a cumulative impact to wildlife movement or migration (significance criterion (d)). The proposed project would not conflict with local biological resources protection policies or the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other such plan; it would therefore not contribute to any cumulative impact related to conflict with a biological resources protection plan (significance criteria (e) and (f)). Significance criteria (b), (c), (d), (e), and (f) are therefore not further discussed.

Construction

There is a moderate potential for one special status species— Swainson's hawk—to occur in the area, and low potential for burrowing owl, loggerhead shrike, pallid bat, San Joaquin kit fox, western red bat, and white-tailed kite. Land impacted by the proposed project is primarily agricultural. Nearly half of Fresno County's land is involved in agricultural operations (Fresno County Farm Bureau n.d.), and the majority of land within 2 miles of Sanger Substation is agricultural land. As a result, potential habitat for the special status species in the project area is representative of potential habitat near and at the site of the proposed project. The Royal Woods Subdivision project has already been graded, and the agricultural market project site is already disturbed (Google Earth 2015). The rezoning project area currently contains vineyards (Google Earth 2015). This means there is little to no habitat at the cumulative project sites for special status species, though the sites may be used for foraging by the same species and individuals as the proposed project site. Royal Woods Subdivision, the agricultural market project, and the eventual development on the rezoned area may result in minimal impacts to special status species. On its own, the proposed project would result in a potentially significant impact to Swainson's hawk, burrowing owl,

loggerhead shrike, San Joaquin kit fox, and white-tailed kite. Other projects may have similar impacts on these species from vegetation removal and grading, which means the impact would be cumulatively significant. All of the proposed project's significant impacts would be reduced to less than significant with implementation of APM BIO-9 (mitigates potential for pets to kill San Joaquin kit foxes), APM BIO-11 (mitigates potential for San Joaquin kit fox to be entrapped in excavations), MM BIO-1 (worker training to reduce impacts to special status species), MM BIO-2 (mitigation of impacts of special status species through avoidance), MM BIO-3 (mitigation of impacts to special status species through monitoring), MM BIO-4 (mitigates impacts to nesting birds), MM BIO-5 (mitigates construction impacts to wildlife in general), MM BIO-6 (mitigates impacts to burrowing owl), and MM BIO-7 (mitigates impacts to special status raptors). The proposed project's contribution to the significant cumulative impact (significance criterion (a)) would not be cumulatively considerable after mitigation.

Operation and Maintenance

With the proposed expansion, Sanger Substation would continue to be operated remotely. Power line inspections would not change from those on the existing lines and new structures, including the expanded substation and transmission lines. The proposed project would not contribute to a cumulative biological resources impact during operation and maintenance.

Cultural Resources

Cultural and paleontological resources impacts are highly localized in that they impact resources in discrete areas; therefore, the cumulative cultural resources analysis uses the list approach. The geographic scope of cumulative impacts to cultural and paleontological resources would include all ground-disturbing projects within 100 feet of the proposed project that could impact known or undiscovered cultural resources. The geographic scope is limited because cultural resources are discrete and typically not very large, such that two projects must be very close to impact the same resource. None of the cumulative projects are located within 100 feet of the proposed project. Therefore, the proposed project would not contribute to a cumulative impact to cultural and paleontological resources (significance criteria (a), (b), (c), and (d)).

Geology and Soils

Geology and soils impacts are project-specific and highly localized; therefore, the cumulative geology and soils analysis uses the list approach. The geographic scope of cumulative impacts would include projects in the immediate vicinity of the proposed projects; for geology and soils impacts of different projects to accumulate, the projects must be close together so that impacts combine in the same location. All of the cumulative projects are located 1.5 miles or more from the proposed project. Therefore, the proposed project would not contribute to a cumulative impact to geology and soils (significance criteria (a), (b), (c), (d), and (e)).

Greenhouse Gases

The CEQA Guidelines address how a lead agency can assess cumulative impacts of projects that emit greenhouse gases (GHGs) (CEQA Guidelines Section 15064(h)(3)):

> A lead agency may determine that a project's incremental contribution to a cumulative effect is not cumulatively considerable if the project will comply with the requirements in a previously approved plan or mitigation program (including, but not limited to . . . regulations for the reduction of greenhouse gas emissions) that provides specific requirements that will avoid or substantially lessen the cumulative problem within the geographic area in which the project is located.

For this analysis, compliance with state-level policies is used to assess cumulative impacts, given that a substantial amount of GHG reduction programs and policies are undertaken or spearheaded at the state level. The cumulative scenario includes all GHG emission sources in California, which includes sources such as transportation, manufacturing, energy production, and agriculture.

Construction and Operation

Regional and global development patterns continue to rely on methods and practices that contribute large volumes of GHGs to the atmosphere, and impacts related to GHGs have widespread and potentially harmful consequences. The increase in GHGs in the atmosphere, caused in large part by human activity, is now considered one of the key causes of global climate change. Current scientific research indicates that potential effects of climate change include variations in temperature and precipitation, sea-level rise, impacts on biodiversity and habitat, impacts on agriculture and forestry, and human health and social impacts. As described in the state's Climate Change Scoping Plan of 2014 (CARB 2014), GHG sources in the state collectively result in emissions that are higher than the targets established by Assembly Bill 32, which indicates that GHG emissions in the state continue to contribute to a total significant state-wide cumulative impact.

The proposed project would contribute to a cumulative GHG impact because it would result in emission of GHGs. During construction, emissions would be generated by equipment/vehicle usage. During operation, emissions would be generated by equipment/vehicle usage and through sulfur hexafluoride (SF_6) leakage from circuit breakers.

The proposed project would comply with regulations related to reduction of GHG emissions from heavy-duty trucks during construction, including the Low Carbon Fuel Standard and, if applicable, "Phase 2" heavy-duty truck GHG standards and other standards and regulations adopted over time. Compliance with these standards is discussed in greater detail in Section 5.7, "Greenhouse Gases." The proposed project's contribution to the cumulative significant impact would therefore not be cumulatively considerable.

Hazards and Hazardous Materials

The cumulative hazards and hazardous materials analysis uses the list approach for hazardous materials impacts because the impacts are project-specific and highly localized. The geographic scope of cumulative impacts for hazardous materials and hazards, including wildfire, would be the area within 100 feet of the proposed project disturbance areas. The limited geographic scope is due to the fact that there is low risk for a hazardous material spill or release as a result of the proposed project. Furthermore, any release would not travel far due to the types of materials involved in construction. The greatest risk would be spillage of gasoline, diesel fuel, oil, or lubricants during construction. In the event of an accident, none of these substances are expected to be released in large quantities or to travel long distances. Furthermore, a wildfire would be limited geographically by roadways among the agricultural fields. None of the cumulative projects are located within 100 feet of the proposed project. Therefore, the proposed project would not contribute to a cumulative impact involving hazards and hazardous materials (significance criteria (a), (b), (c), (d), (e), (f), (g), (h)).

Hydrology and Water Quality

The cumulative hydrology and water quality analysis uses both the list approach and the projection approach, depending on the impact. Certain hydrology and water quality impacts are project-specific and highly localized, including water quality, drainage impacts, and runoff. Some impacts, however, are basin- or countywide, such as groundwater supply, making the projection approach most appropriate to evaluate cumulative impacts. The geographic scope of cumulative impacts for hydrology and water quality is dependent on the impact. Impacts related to groundwater supply and water quality are regional and thus examined at the county level. The other impacts would be more localized, and the geographic

scope is within 0.25 miles of the proposed project because this area encompasses the nearest drainages where local impacts to hydrology and water quality could combine. There are no projects located within 0.25 miles of the proposed project, so there would be no cumulative impacts related to drainage alteration (significance criteria (c) and (d), and (e)). Significance criteria (c), (d), and (e) as they relate to stormwater drainage are therefore not discussed further.

The proposed project would not result in impacts related to 100-year floods, seiches, tsunamis, or mudflows. The proposed project therefore would not contribute to a cumulative impact related to 100-year floods, seiches, tsunamis, or mudflows (significance criteria (g), (h), and (j)). The proposed project would not affect groundwater recharge and would therefore not contribute to a cumulative impact to groundwater recharge (significance criterion (b)). Construction of Sanger Substation would require 1 million gallons of water sourced from the City of Sanger, City of Fowler, and Sunnyside Farm (which owns the expansion parcel); operation would not use groundwater. Since construction and operation would represent a net reduction of groundwater use at the parcel, the proposed project would not contribute to cumulative adverse impacts to groundwater supply (significance criterion (b)). Significance criterion (b) is therefore not discussed further.

Construction

The proposed project and the projects identified in Table 5.18-2 would be required to adhere to applicable water quality regulations at the local, state, and federal levels. Likewise, all projects would be required to comply with applicable permitting requirements such as a Construction Activities Storm Water General Permit (Order 99-08-DWQ) for storm water discharges associated with construction activities. For any projects that would disturb more than 1 acre, a Stormwater Pollution Prevention Plan would also be required, which would mandate implementation of best management practices prior to construction, such as fiber rolls, silt fence, and mulch. Projects would also need to comply with applicable hazardous materials regulations to prevent spills. With compliance with existing regulations, cumulative impacts to water quality from sedimentation and hazardous materials spills (significance criteria (a), (e), and (f)) would not be significant.

Catastrophic failure of the Pine Flat Dam would cause inundation of a large and populated area of southern Fresno County, which would result in a significant impact. The proposed project would temporarily place workers within the inundation area, contributing to the significant impact (significance criterion (i)) in the event of dam failure. Given that the area would eventually drain, that water would be only 2 feet deep at the substation site, and that it is unlikely that dam failure will occur during the construction period, the proposed project's contribution to the significant impact would not be cumulatively considerable.

Operation and Maintenance

Operation of the expanded substation would be appreciably the same as current operations with regard to hazardous material use, and no additional ground disturbance would occur. No employees would be located on site. Operation of the proposed project would therefore not contribute to a cumulative impact to water quality from sedimentation and hazardous materials spills (significance criteria (a), (e), and (f). Operation also would not contribute to a cumulative impact related to dam failure (i).

Noise and Vibration

Noise and vibration impacts are highly localized; therefore, the cumulative noise and vibration analysis uses the list approach. The geographic scope for cumulative noise impacts is the area in which noise from the proposed project could combine with noise from cumulative projects to affect a sensitive receptor. For the loudest projects (i.e., those that could generate noise at 90 A-weighted decibels (dBA) at 50 feet from the noise source during Phase 5, which is the loudest phase of construction) and given attenuation of

noise over distance, the geographic scope is presumed to be about 0.6 miles, where noise would attenuate to under 54 dBA due to distance. It is likely that noise would be even further reduced due to intervening structures and vegetation. With this additional attenuation, noise at this distance would fade into ambient background noise (see Table 5.12-2). For vibration, the scope is even smaller due to the rapid attenuation of vibration over distance; the most intensive activities associated with proposed project construction would not be perceptible beyond about 36 feet (Amick and Gendreau 2000). Projects identified in Table 5.18-2 are more than 0.6 miles from Sanger Substation, such that noise and vibration from the proposed project would not combine with noise or vibration from another project to affect a sensitive noise receptor. Therefore, there would be no cumulative noise or vibration impact (significance criteria (a), (b), (c), and (d)). Furthermore, the proposed project would not be located within an airport land use plan or in the vicinity of a private airstrip and would therefore not contribute to related cumulative impacts (significance criteria (e) and (f)).

Population and Housing

The projection approach was used to analyze the proposed project's cumulative impact on population and housing. Because population growth occurs at a city, county, and regional level, a project list approach would not adequately represent the cumulative scenario. Therefore, a summary of projections approach was used to evaluate potential cumulative impacts. The cumulative scenario covers Fresno County, based on the assumption that projected population growth across the county would take into account the average growth of cities to which workers may relocate if they are working on the proposed project or any of the cumulative projects. The proposed project would not displace existing housing or people; it would not contribute to related cumulative impacts (significance criteria (b) and (c)); therefore, significance criteria (b) and (c) are not further discussed.

Construction

Caltrans forecasts that the population in Fresno County will grow approximately 1.2 percent from 2015 to 2020 (Caltrans 2016). Construction of 1.2 percent more housing could result in a significant cumulative environmental impact depending on the location and timing of construction. However, the proposed project's construction would not make a cumulatively considerable contribution to this impact because, while unlikely, even if 30 construction workers relocated to the project area, vacancy rates near 8.3 percent for the County of Fresno indicate existing housing could accommodate temporary population growth. Construction of the proposed project would not make a cumulatively considerable contribution to the cumulative impact (significance criterion (a)).

Operation and Maintenance

Operation and maintenance of the proposed project would have no impact on population and housing, given that the substation would be unstaffed. The proposed project therefore would not contribute to a cumulative population growth impact (significance criterion (a)).

Recreation

The projection approach was used to analyze the proposed project's cumulative impact on recreation facilities. Population growth affects use of recreational facilities. Because population growth occurs at a city, county, and regional level, a project list approach would not adequately represent the cumulative scenario. Therefore, a summary of projections approach was used to evaluate potential cumulative impacts. The proposed project would not include recreational facilities and would not contribute to cumulative impacts related to construction of recreational facilities (significance criterion (b)). Significance criterion (b) is therefore not further discussed.

Construction

Caltrans forecasts that the population in Fresno County will grow approximately 1.2 percent from 2015 to 2020 (Caltrans 2016), which would equate to about 12,000 people. The addition of 12,000 people to the county's population could result in significant degradation of recreational facilities. However, the proposed project's construction would not make a cumulatively considerable contribution to this impact because, while unlikely, even if 30 construction workers relocated to the project area, this addition to the population would be miniscule compared to projected growth in the County.

Operation and Maintenance

Operation and maintenance of the proposed project would have no impact on population, since the substation would be unstaffed, and thus no impact on degradation of recreational facilities, and would not contribute to a cumulative recreation impact (significance criterion (a)).

Transportation and Traffic

The impacts to traffic from the proposed project would be most concentrated near Sanger Substation; therefore, the list approach is most appropriate to analyze cumulative impacts to traffic and transportation.

The geographic scope of cumulative impacts for transportation and traffic includes projects that would result in impacts to roads that would be used for the proposed project's construction. Traffic associated with the Vita Pakt expansion project could use South McCall Avenue to access the site from State Route (SR) 180. Construction and buildout traffic of the Royal Woods Subdivision could use East Jensen Avenue and South McCall Avenue to access the site from the west. The agricultural market traffic would mainly come from adjacent SR-180 but could also come from South McCall Avenue.

The proposed project would not contribute to a change in air traffic patterns; therefore, there would be no cumulative air traffic impact (significance criterion (c)). The proposed project would not affect parking and therefore would not contribute to a cumulative parking impact (significance criterion (g)). Significance criteria (c) and (g) are therefore not further discussed.

Construction

Construction of Sanger Substation would result in a temporary impact on roadways, including those subject to the Fresno County Congestion Management Program (South McCall Avenue and East Jensen Avenue). The other proposed projects listed in Table 5.18-2 could result in traffic impacts on the same roadways, as construction periods could potentially overlap with the Sanger Substation construction period.

However, the agricultural center and the Vita Pakt project are in the planning stages, such that traffic volume analysis would be speculative at this stage. Likewise, the rezoning project does not specify what kinds of stores or other commercial uses would be located on the rezoned parcel, which means that traffic volume impacts analysis would be speculative as well. The Royal Woods subdivision is located approximately 1.2 miles east of Sanger Substation off of East Jensen Avenue, and construction of homes is expected to overlap with expansion of Sanger Substation. Roads that could be impacted by construction traffic from the proposed project and the Royal Woods subdivision include SR-180, South McCall Avenue, and East Jensen Avenue. Traffic associated with the subdivision project would include vehicle and truck trips by workers, material delivery, and heavy equipment delivery. If many homes are constructed at once, construction may generate a substantial amount of traffic on these roadways and combine with traffic from the proposed project.

Delays from lane closure due to line stringing across South McCall and East Jensen Avenues could result in a significant cumulative impact to circulation in combination with traffic associated with Royal Woods construction. The proposed project itself would generate a maximum of 200 passenger car equivalent trips per day. In combination with traffic from Royal Woods construction, it is unlikely that the level of service (LOS) would degrade below acceptable given the current adequate operating LOS of most affected roads (South McCall Avenue, East Jensen Avenue, and SR-180; there would not be a cumulative significant impact (significance criteria (a) and (b)) to LOS on these roads due to increases in traffic volume. For SR-168, where LOS is already level D, the addition of traffic from the proposed project and from Royal Woods would be incremental compared to the total annual daily traffic on SR-168 (73,803). The incremental addition of traffic from the proposed project would not result in a cumulative significant impact (significance criteria (a) and (b)) to LOS on SR-168. The proposed project may result in truck queuing on South McCall Avenue, which could result in delays to traffic traveling southbound on South McCall Avenue. The proposed project may also result in delay when lane closures are implemented for stringing over South McCall Avenue and East Jensen Avenue. Traffic associated with the Royal Woods Subdivision may contribute to the impact. This cumulative impact would be significant. The proposed project's contribution would be cumulatively considerable because, on its own, the proposed project would result in a significant traffic impact. PG&E would be required to implement MM TRAN-1, which would preclude project traffic from queuing on South McCall Avenue and reduce delays from lane closure. With mitigation, the project's contribution to a cumulative impact (significance criteria (a) and (b)) would not be cumulatively considerable.

Work in public roadways would likely not be required as part of any of the cumulative projects because they are contained within parcels and do not have components over roadways. Therefore, there would be no cumulative safety impact due to work in public roadways. The cumulative projects are also located far enough away from the proposed project that there would be no cumulative impact from slow truck egress. Heavy truck traffic from any of the cumulative projects could cause pavement damage similar to that associated with the proposed project. If damage occurs to the same roads, safety impacts could be significant. The proposed project on its own may result in a significant safety impact due to damage, which would be a cumulatively considerable contribution to the cumulative impact. PG&E would repair all damaged roadways per MM TRAN-1. After mitigation, the proposed project's contribution to the cumulative impact (significance criterion (d)) would not be cumulatively considerable.

While the proposed project may affect emergency access and public transit through lane closures, the cumulative projects likely would not require lane closure because they are home construction and commercial buildings that will be contained within parcels and do not have components over roadways. Thus, there would be no cumulative emergency access impact (significance criterion (e)) or public transit impact (significance criterion (f)).

Operation and Maintenance

Sanger Substation would continue to be operated remotely. Power line inspections would not change from those on the existing lines and new structures. Therefore, the proposed project's operation and maintenance would not contribute to a significant cumulative impact to traffic and transportation.

Utilities and Service Systems

The projection approach was used to analyze the cumulative impact to utilities because utilities are provided at the city and county levels. The geographic scope of cumulative impacts on utilities and service systems includes water district boundaries and landfill service areas that overlap with the proposed project area or that the project area would use. The City of Sanger may provide water proposed project construction. The landfill closest to the project area is the City of Clovis Landfill, located at 15679 Auberry Road in Fresno, California, approximately 15.3 miles northwest of the substation expansion area.

The second closest active landfill, the American Avenue Disposal Site, is located approximately 29.2 miles southwest of the substation expansion area.

Projects would presumptively comply with wastewater treatment requirements of the Central Valley Regional Water Quality Control Board, such that there would be no related cumulative significant impact (significance criterion (a)). The proposed project would not require or result in construction of new water or wastewater facilities or require the expansion of existing facilities, and thus it would not contribute to a significant impact (significance criterion (b)). The proposed project would have no impact related to noncompliance with federal, state, and local statutes and regulations related to solid waste disposal and therefore would not contribute to a significant impact (significance criterion (g)). Significance criteria (a), (b), and (g) are therefore not further discussed.

Construction

The Fresno County General Plan notes a significant impact from construction of new stormwater drainage facilities over time due to growth (Fresno County 2000). However, the proposed project's stormwater drainage facilities are self-contained and therefore do not contribute to those impacts. The proposed project would not contribute to a cumulative significant stormwater drainage impact (significance criterion (c)).

Construction of the proposed project would require approximately 1 million gallons of water. All water used would be trucked in from an outside source(s) in the project vicinity, which could include the City of Sanger, City of Fowler, or Sunnyside Farms (current owner of substation expansion area).

The City of Sanger is capable of producing 4.7 billion gallons of water per year from eight wells, and the current demand is 1.7 billion gallons of water per year (City of Sanger 2016a). The City of Fowler is capable of producing approximately 3.1 billion gallons of water per year and pumped 551,500 million gallons of water in 2015 (Weisser 2016). As described in Section 5.17, "Utilities and Service Systems," neither the City of Sanger nor the City of Fowler has a limit to the amount of water they may pump. Across the county, projected growth-related demand on water supply that would require additional facilities for water treatment has been identified as a significant cumulative impact (Fresno County 2000). The proposed project would utilize water and would therefore contribute to the significant cumulative impact. The proposed project would utilize water during the construction period, which would be temporary and for only 24 to 30 months. It would not cause the need for new entitlements during the temporary construction period, and then water use would cease. The proposed project therefore would not make a cumulatively considerable contribution to this significant impact (significance criterion (d)) if water from the City of Sanger or City of Fowler is used.

If Sunnyside Farms water is used, water use on the parcel would decrease during construction when compared to baseline. Given that the current demand is 5.9 million gallons per year on the expansion area for eggplant crops, and the proposed project's need is 1 million gallons over 24 to 30 months, there would be a decrease in water need at the substation expansion parcel if the Sunnyside Farms water supply is used. In this case, construction of the proposed project would not contribute to a cumulative water supply impact (significance criterion (d)).

The Fresno County General Plan notes a significant impact from construction of new wastewater facilities over time due to growth (Fresno County 2000). Wastewater would be generated during construction of Sanger Substation, but this impact would be temporary and would not be due to growth. Construction of the proposed project therefore would not contribute to a significant impact (significance criterion (e)).

Construction of Sanger Substation would generate solid waste from demolition and installation of new infrastructure installation of new steel tubular poles. The waste would be disposed of within the County.

The County General Plan EIR (Fresno County 2000) finds that there is adequate capacity at the county level in existing landfills to serve future needs under the General Plan, which includes projects such as the proposed project. The cumulative impact related to solid waste disposal (significance criterion (f)) would therefore be less than significant.

Operation and Maintenance

The expanded Sanger Substation would be operated remotely and would have no new permanent water, wastewater, or solid waste needs. No water would be used to operate or maintain the expanded substation; therefore, the proposed project would not contribute to a cumulative water use impact. Therefore, the proposed project's operation and maintenance would not contribute to a significant cumulative impact to utilities and service systems (significance criteria (c), (d), (e), (f)).

c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

The proposed project would not cause substantial adverse effects on human beings either directly or indirectly. The proposed project would result in temporary impacts to human health during construction, including changes to air quality, exposure to geologic hazards, and exposure to hazardous materials. As discussed in Section 5.3, "Air Quality," air quality effects would be less than significant. As discussed in Section 5.8, "Hazards and Hazardous Materials," hazards impacts would be less than significant with implementation of APMs and mitigation measures, including preparation and implementation of a Hazardous Materials Management Plan and implementation of an updated Spill Prevention Control and Countermeasure Plan. As discussed in Section 5.6, "Geology and Soils," seismic impacts on workers during construction would be less than significant, and the proposed project would not exacerbate existing seismic conditions. Operation and maintenance activities would be comparable to current activities and no additional impacts to human beings would occur.