

4. ENVIRONMENTAL IMPACT ANALYSIS

4.0. APPROACH TO ENVIRONMENTAL ANALYSIS

This Draft PEIR evaluates and discloses the environmental impacts associated with the Valley Clean Infrastructure Plan (VCIP), in accordance with CEQA. The potentially significant environmental impacts of all phases of VCIP implementation, including construction, operation, and decommissioning, are evaluated in Sections 4.1 through 4.18, consistent with CEQA Guidelines Section 15126.2. A significant impact is defined in CEQA as a substantial or potentially substantial adverse change to the physical environment resulting from implementation of a project. Where significant environmental impacts are identified, potentially feasible mitigation measures are described that may avoid or substantially lessen such impacts. Mitigation measures may avoid, minimize, or compensate for significant adverse impacts and need to be fully enforceable through permit conditions, agreements, or other legally binding means (CEQA Guidelines, section 15126.4[a]). Mitigation measures are not required for impacts that are found to be less than significant. In addition, Chapter 6, “Alternatives to the Proposed Project,” presents a reasonable range of alternatives that may avoid or reduce the Project’s potentially significant impacts on the environment.

4.0.1. Program Level Environmental Review

This PEIR is a “Program EIR” as provided for in section 15168 of the CEQA Guidelines. Program EIRs are intended to provide plan-level or programmatic environmental review, as distinguished from project-level environmental review conducted for discretionary approvals of projects proposed for construction.

A Program EIR allows for a more comprehensive and coordinated consideration of effects and alternatives than would be practical for an EIR on separate individual actions, and ensures consideration of cumulative impacts that might be missed on a case-by-case basis. A Program EIR is not intended to examine the specific environmental effects associated with individual actions that may be undertaken under the larger program but are presently unforeseeable and would be determined at the project level. Subsequent environmental review may be required for later activities within the program pursuant to CEQA Guidelines section 15168(c) if they may result in effects not evaluated in the Program EIR.

4.0.2. Environmental Setting/CEQA Baseline

CEQA Guidelines Section 15125(a) states that an EIR must include a description of the physical environmental conditions in the vicinity of the project, as they exist at the time the Notice of Preparation is published (i.e., February 2024 for the VCIP), or if no notice of preparation is published, at the time environmental analysis is commenced, from both a local and regional perspective. This environmental setting will normally constitute the baseline physical conditions by which a lead agency determines whether an impact is significant.

CEQA Guidelines section 15125(a)(2) also provides that a lead agency may use projected future conditions as the sole baseline for analysis in some instances. This would apply in the case of a phased program where individual projects under the program will not be constructed or become operational until several years hence. The VCIP is planned to be implemented over an approximately 10-year period, with construction of the first individual projects anticipated to commence around 2028, and with additional projects to be constructed in subsequent years. Thus {00081326.1}

for some environmental topics, the baseline for those projects would appropriately be set at the years of scheduled project construction in order to capture the effects of cumulative growth that has occurred in the project setting between the issuance of the NOP in 2024 and the applicable construction year (e.g., 2028-2038). The use of future baselines in these circumstances has been upheld by the California Supreme Court which stated that in these types of situations an analysis based on existing conditions would tend to be “misleading or without informational value” (*Neighbors for Smart Rail v. Exposition Line Construction Authority* (2013), 57 Cal.4th 439). The use of future baselines is standard practice for traffic studies and also applies to related studies such as air quality studies and noise assessments. Existing conditions would serve as the programmatic baseline for other environmental studies such as biological and cultural resources, geology and soils, hydrology, and other natural resources given the unforeseeable changes to site conditions for these resources that may occur up to the time of VCIP project construction. For the analysis of water supply, and related issues such as flooding, the baseline is best represented by the average of recent historical data over the previous 10 years. This is necessary and appropriate given the wide variability of water supplies from year to year, which is not accurately captured by a single year of data. The use of recent historical averages for water supply conditions therefore provides a more meaningful and informative baseline for decision-makers and the public (CEQA Guidelines, section 15125(a)(1)). When individual VCIP projects are proposed for construction, the subsequent environmental reviews associated with their entitlements would provide detailed assessments of contemporaneous existing conditions and would capture any changes in site conditions that have occurred since the programmatic analysis was conducted, and would therefore serve as accurate project-specific baselines for those impact analyses.

4.0.3. Significance Criteria

CEQA Guidelines section 15382 defines a significant effect on the environment as:

“...a substantial, or potentially substantial adverse change in any of the physical conditions within the area affected by the project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance. An economic or social change by itself shall not be considered a significant effect on the environment. A social or economic change related to a physical change may be considered in determining whether the physical change is significant.”

Sections 4.1 through 4.18 of this Draft PEIR identify the standards used to determine the level of significance of the environmental impacts for each resource topic, in accordance with the CEQA Guidelines sections 15126, 15126.2, and 15143. The topics upon which these thresholds of significance were developed are based on the environmental checklist in Appendix G of the CEQA Guidelines and regulatory standards of federal, state, and local agencies. The significance of each impact is determined by comparing the effects of the Project to the baseline condition and determining whether substantial, adverse physical changes would result. Methods and assumptions used to frame and conduct the impact analyses are also described in Sections 4.1 through 4.18 for each resource topic.

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4.0.4. Contents of the Resource Sections

Sections 4.1 through 4.18 of this Draft PEIR disclose the environmental impacts of the proposed VCIP, including the Plan’s contribution to cumulative impacts associated with each of the environmental topics, and are organized in the following subsections:

ENVIRONMENTAL SETTING

This section describes the environmental conditions in the Plan Area and surrounding region, as appropriate, when the Notice of Preparation of the PEIR was published (February 2024). The geographic extent of the environmental setting area differs depending on the resource being discussed.

REGULATORY CONTEXT

This section presents the applicable federal, state, and local regulatory requirements and planning context for the specific resource topic.

IMPACTS AND MITIGATION MEASURES

Methods and Approach

This section describes the methods, process, procedures, and assumptions used to conduct the impact analysis.

Standards of Significance

This section provides the criteria used to define the level at which an impact would be considered significant, based on the environmental checklist in Appendix G of the CEQA Guidelines and regulatory standards of federal, state, and local agencies.

Direct and Indirect Effects

The potential direct and indirect effects of VCIP implementation are determined by comparing the construction, operation, and decommissioning of the various Plan components (e.g., solar facilities, substations, transmission) to the baseline conditions, as described in the environmental setting. Project impacts are numbered sequentially in each chapter (Impact AG-1, Impact AG-2, Impact AG-3, etc.). A summary impact statement precedes a more detailed discussion of the environmental impact. The discussion includes the analysis, rationale, and substantial evidence upon which conclusions are based. The determination of level of significance of the impact is defined in *italicized* text. A “less-than-significant” determination indicates that implementing the project would not result in a potentially substantial adverse change in the physical environment. A “potentially significant” determination indicates that it would result in a potential substantial adverse change in the physical environment, and results in the need to identify feasible mitigation.

Where an existing law, regulation, or permit specifies mandatory and prescriptive actions about how to fulfill the regulatory requirement, leaving little discretion in its implementation, and where it would avoid an impact or reduce it to or maintain it at a less-than-significant level, the environmental protection afforded by the regulation is considered before impact significance is determined (e.g., Air District dust control regulations). Where existing laws or regulations specify a mandatory permit process for future projects, performance standards without {00081326.1}

prescriptive actions to accomplish them, or other requirements that allow substantial discretion in how they are accomplished, or have a substantial compensatory component, the level of significance is determined before the influence of the regulatory requirements is applied. For example, if the impact would be potentially significant, then the regulatory requirements would be included as a mitigation measure (e.g., compliance with Fresno County noise standards).

Cumulative Impacts

Cumulative impacts, considered in the context of other existing and proposed projects, are addressed at the end of each resource chapter. The existing cumulative condition is described; the effect of past, present, and probable future projects is considered in conjunction with the project to determine whether a significant cumulative impact would result, and the VCIP's potential contribution to that cumulative condition is assessed. If the VCIP's contribution to a significant cumulative impact is considerable, corresponding mitigation measures to avoid or substantially lessen the VCIP's contribution are described to the extent feasible.

The cumulative analysis methodology, including the geographic scope of cumulative analysis for each resource topic, is described below.

4.0.5. Cumulative Impacts

CEQA Guidelines section 15355 defines a cumulative impact as two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts. Section 15130(a) of the CEQA Guidelines requires a discussion of the cumulative impacts of a project when the project's incremental effect is cumulatively considerable. "Cumulatively considerable," as defined in State CEQA Guidelines section 15065(a)(3), means that the "incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects." Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.

4.0.5.1. CUMULATIVE IMPACTS APPROACH

CEQA Guidelines section 15130 identifies two basic methods for establishing the cumulative environment in which a project is considered, including: "(A) A list of past, present or reasonably anticipated future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency; or (B) A summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, or which described or evaluated regional or areawide conditions contributing to the cumulative impact" (CEQA Guidelines, section 15130(b)). The cumulative analysis in this PEIR uses a combination of the "list" approach and the "summary of projections" (or "plan") approach to identify the cumulative setting.

As mentioned, the effects of a project must be "cumulatively considerable" to be considered significant. Accordingly, CEQA requires a two-step analysis for cumulative impacts, with the first step resulting in a determination of whether a significant cumulative impact would occur for each resource topic, and the second step resulting in a determination of whether the project contribution to the cumulative impact is "considerable." An affirmative finding is required for both steps to conclude that a project impact is cumulatively significant (CEQA Guidelines, section 15130(a)(2)-(3)).

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Past and present projects are typically those which have been approved and constructed and are in operation under existing conditions at the time of NOP issuance. As such, these projects contribute to existing conditions for effects such as traffic and noise, and these effects would be captured in inventories of existing conditions such as traffic counts and ambient noise measurements. Therefore, the assessment of cumulative impacts for each resource category must avoid the potential of adding incremental effects of past and present projects to the existing condition where doing so would result in double accounting of such incremental effects.

Probable future projects are those in the vicinity of the Plan Area that have the possibility of interacting with the VCIP implementation to generate a cumulative impact. Probable future projects include those which:

- are partially occupied or under construction;
- have received final discretionary approvals;
- have applications accepted as complete by local agencies and are undergoing environmental review; or
- are public projects which are authorized, fully funded, and scheduled for construction but not yet completed.

As described below, the cumulative list for this PEIR considers other major pending and approved projects, primarily solar projects within and in the vicinity of the Plan Area.

In addition to the “list” approach described above, the cumulative analysis also employs the summary of projections or “plan” approach. This involves consideration of growth rates and patterns as set forth in the Fresno County General Plan and other relevant planning documents.

4.0.5.2. CUMULATIVE SETTING

The geographic area that could be affected by a project varies depending on the environmental resource being considered. When the effects of the project are considered in combination with other cumulative projects, the cumulative effects would also vary depending on the geographic scope of environmental effects being assessed. Table 4.0-1 presents the general geographic areas associated with the different resources addressed in this analysis.

**TABLE 4.0-1
GEOGRAPHIC SCOPE OF CUMULATIVE IMPACTS**

Resource Topic	Geographic Scope
Aesthetics	Plan Area and surrounding public viewpoints
Agriculture and Forestry Resources	Plan Area and surrounding lands
Air Quality	San Joaquin Valley Air Basin
Biological Resources	Plan Area and surrounding lands
Cultural Resources	Plan Area and surrounding lands
Energy	Plan Area/Statewide
Geology and Soils, and Paleontology	Plan Area and surrounding lands
Greenhouse Gas Emissions	Statewide/Global
Hazards and Hazardous Materials	Plan Area and surrounding lands
Hydrology and Water Quality	Plan Area and surrounding lands

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TABLE 4.0-1 (CONT'D)
GEOGRAPHIC SCOPE OF CUMULATIVE IMPACTS

Resource Topic	Geographic Scope
Land Use and Planning	Plan Area and surrounding lands
Noise	Plan Area and surrounding lands
Population and Housing	Plan Area and surrounding region
Public Services	Local service areas
Transportation	Regional and local transportation network
Tribal Cultural Resources	Plan Area and surrounding lands
Utilities and Service Systems	Westside Subbasin and local service areas
Wildfire	Plan Area and surrounding lands

4.0.5.3. CUMULATIVE PROJECTS LIST

Table 4.0-2 contains a list of past, present, and probable future projects within the Plan Area and vicinity. Specifically, the table includes projects which are listed “Completed/Operational,” at the time this PEIR was prepared. The table also includes projects listed as “Approved/Not Constructed,” or “Pending Approval.” These latter projects are assumed to have been approved and constructed, and to be operational by the time the construction of the first potential VCIP infrastructure projects would be expected to start in 2028 and the first solar and energy storage projects would be expected to start in 2029. As such, the cumulative analysis considers only the operational impacts of these cumulative projects and not the construction-related impacts since these projects are assumed to have been completed by 2028.

The locations of the cumulative projects are shown in Figure 4.0-1 and include those located within the VCIP Plan Area and lands within 10 miles beyond the Plan Area boundary. [Note: Although small portions of Merced and Madera counties are located within the 10-mile radius of the Plan Area, there are currently no projects within those areas for inclusion on the cumulative projects list.]

The cumulative projects list in Table 4.0-2 includes four project sites that are (or were) under the District’s ownership and have either been approved (e.g., Sonrisa Solar – No. 26, Darden Clean Energy – No. 27) or are pending approval (e.g., Heartland Solar – No. 27, ICF Rosemary Solar – No 32). These projects are included within DFAs in the proposed VCIP because, at the time of the issuance of the NOP for this PEIR in February 2024, these projects had not been approved and were still under the District’s ownership. Since these project sites are within the proposed VCIP DFAs, their potential development for solar/BESS facilities is evaluated as part of the proposed VCIP “project” in this PEIR. Since the potential impacts resulting from these projects are accounted for in the impact evaluations of the VCIP DFAs, they are not included in the evaluation of cumulative impacts in this PEIR. The inclusion of these projects in Table 4.0-2 and Figure 4.0-1 is provided for informational purposes only.

Numerous small projects have been proposed and approved in the VCIP vicinity over the past several years, including cell towers, infrastructure improvements, small residential subdivisions, adaptive reuse projects, and expansions of existing uses that involve minimal or no environmental impacts. Such minor projects are not included on the list in Table 4.0-2 since there is no potential that they would contribute to a cumulatively significant impact that may be associated with VCIP implementation.

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Source: Google Earth, 2024

Pending, Approved, and Completed Projects
 Figure 4.0-1

**TABLE 4.0-2
COMPLETED, APPROVED, AND PENDING PROJECTS***

Map Ref.	Project	Acreage	PV / BESS Capacity (MW)	Status (As of 7/1/25)
FRESNO COUNTY				
Renewable Energy Projects				
1	Solis Oro Loma Solar	156	20	Completed/Operational
2	CalRenew-1 Solar	50	5	Completed/Operational
3	Citizen Solar B	40	5	Completed/Operational
4	North Star Solar	626	60	Completed/Operational
5	Little Bear Solar	1,288	180	Completed/Operational
6	Adams East Solar	319	37	Completed/Operational
7	Tranquillity Solar	3,732	400	Completed/Operational
8	Giffen Solar Park	320	20	Completed/Operational
9	PG&E Giffen Solar	200	10	Completed/Operational
10	PG&E Stroud Solar	130	20	Completed/Operational
11	GA Solar	319	27	Completed/Operational
12	PG&E Five Points Solar	160	15	Completed/Operational
13	PG&E Westside Solar	100	15	Completed/Operational
14	PG&E Cantua Solar	160	20	Completed/Operational
15	Whitney Point Solar	320	40	Completed/Operational
16	Westside Solar	160	20	Completed/Operational
17	Five Points Solar Park	500	69	Completed/Operational
18	Fifth Standard	1,400	170 PV / 100 BESS	Completed/Operational
19	PG&E Huron Solar	260	20	Completed/Operational
20	PG&E Gates Solar	60	20	Completed/Operational
21	Westlands Solar Farm	91	20	Completed/Operational
22	Scarlet Solar	4,069	400	Completed/Operational
23	CES Electron Farm One	40	5	Approved/Not Constructed
24	Luna Valley Solar	1,252	200	Approved/Not Constructed
25	Renewable Properties/Althea	57	10	Approved/Not Constructed
26	Sonrisa Solar**	1,700	200 PV / 60 BESS	Approved/Not Constructed
27	Heartland Solar**	1,116	300 PV	Pending Approval
28	Key Energy Storage	318	3,000 BESS	Approved/Not Constructed

* List includes projects located within VCIP Plan Area and within 10 miles outside VCIP boundary.

** These projects were not approved at the time of the issuance of the NOP on this PEIR in February 2024. Since these projects are on District-owned lands, they are included in the VCIP DFAs and their potential impacts are evaluated in this PEIR. Therefore, these projects are not included in the cumulative impact analysis. They are included in this table and in Figure 4.0-1 for informational purposes only.

Notes: MW = Megawatt; PV = solar photovoltaic; BESS = Battery Energy Storage System; CEC = California Energy Commission; CPUC = California Public Utilities Commission.

Sources: Counties of Fresno, Kings, Merced, & Madera 2025. Cities of Mendota, Firebaugh, Coalinga, Huron, San Joaquin, & Lemoore 2025.

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TABLE 4.0-2 (CONT'D)
COMPLETED, APPROVED, AND PENDING PROJECTS

Map Ref.	PROJECT	Acreage	PV / BESS Capacity (MW)	Status (As of 7/1/25)
FRESNO COUNTY (Cont'd)				
29	Panoche BESS	3.5	15 MW	Approved
30	Midway BESS	5.5	30 MW	Approved
31	Darden Clean Energy**	9,500	1,150 PV / 1,150 BESS	Approved (CEC)
32	ICF Rosemary Solar**	1,600	250 PV / 250 BESS	Pending Approval
33	BayWa r.e. /Cornucopia	1,613	300 PV / 300 BESS	Pending Approval
33A	San Luis West	770	125 PV / 30 BESS	Pending Approval
Other Projects in Fresno County (unincorporated)				
33B	Manning Substation	40	500/230 kV Substation + 12-mile 230-kV Gen-Tie	Pending Approval (CPUC)
34	Nees/I-5 Commercial	10	Freeway Commercial	Pending Approval
35	Stamoules Pistachio Plant	98	Ag Processing	Approved/Not Constructed
36	Kamm Ave Pistachio Plant	316	Ag Processing	Pending Approval
37	Ag Comm Center – 269/198	39	Ag Commercial	Pending Approval
38	Seneca Resources	25,749	New oil wells & oil facility upgrades	Pending Approval
39	Turk Station Pistachio Plant	395	Ag Processing	Pending Approval
40	SR-198/I-5 Commercial	27	Freeway Commercial	Pending Approval
City of Firebaugh				
41	La Joya Commons	2	28 Multi-Family	Approved/Under Construction
KINGS COUNTY				
Renewable Energy Projects				
42	Sun City	180	20	Completed/Operational
43	Sand Drag	240	19	Completed/Operational
44	Avenal Park	86	9	Completed/Operational
45	Mustang/Orion/Kent South	1,882	200	Completed/Operational
46	American Kings	978	125	Completed/Operational
47	Kansas	200	20	Completed/Operational
48	Kansas South	230	20	Completed/Operational
49	Riverwest	836	136	Completed/Operational

* List includes projects located within VCIP Plan Area and within 10 miles outside VCIP boundary.

** These projects were not approved at the time of the issuance of the NOP on this PEIR in February 2024. Since these projects are on District-owned lands, they are included in the VCIP DFAs and their potential impacts are evaluated in this PEIR. Therefore, these projects are not included in the cumulative impact analysis. They are included in this table and in Figure 4.0-1 for informational purposes only.

Notes: MW = Megawatt; PV = solar photovoltaic; BESS = Battery Energy Storage System; CEC = California Energy Commission; CPUC = California Public Utilities Commission.

Sources: Counties of Fresno, Kings, Merced, & Madera 2025. Cities of Mendota, Firebaugh, Coalinga, Huron, San Joaquin, & Lemoore 2025.

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TABLE 4.0-2 (CONT'D)
COMPLETED, APPROVED, AND PENDING PROJECTS

Map Ref.	PROJECT	Acreage	PV / BESS Capacity (MW)	Status (As of 7/1/25)
KINGS COUNTY (Cont'd)				
50	Kettleman	220	20	Completed/Operational
51	Java	96	15	Completed/Operational
52	Lemoore 14	60	8	Completed/Operational
53	Mustang 2	1,450	150	Completed/Operational
54	Slate	2,490	300	Completed/Operational
55	Westside/Almond	208	22	Completed/Operational
56	Aquamarine	1,825	250	Completed/Operational
57	Solar Blue	1,895	250	Completed/Operational
58	Chestnut/Castanea	1,080	150	Completed/Operational
59	Grape	1,759	250	Approved/Not Constructed
60	Cherry	2,079	250	Approved/Not Constructed
61	Daylight Legacy	2,107	300	Approved/Not Constructed
62	Kings CSG 1	30	5	Approved/Not Constructed
63	Kings CSG 3	20	3	Approved/Not Constructed
Other Projects in Kings County (unincorporated)				
64	Sandridge LP Cattle	135	Ag Processing (~72K sf)	Approved/Not Constructed
City of Lemoore				
65	Peoples Properties	137	Cannabis Cultivation	Completed/Operational
66	Lemoore Tract 935 Project	30	148 Single-Family, 200 Multi-Family, 20,000 sf Retail	Approved/Under Construction
67	Lacey Ranch	156	547 Single-Family, 204 Multi-Family	Approved/Not Constructed
68	Helena Agri-Enterprises	31	Fertilizer Plant	Approved/Not Constructed
69	Maverik	21	Gas Station & Industrial Park	Approved/Not Constructed
70	Lemoore Tract 848	54	362 Single-Family Res	Approved/Not Constructed

* List includes projects located within VCIP Plan Area and within 10 miles outside VCIP boundary.

Notes: MW = Megawatt; PV = solar photovoltaic; BESS = Battery Energy Storage System; CEC = California Energy Commission; CPUC = California Public Utilities Commission.

Sources: Counties of Fresno, Kings, Merced, & Madera 2025. Cities of Mendota, Firebaugh, Coalinga, Huron, San Joaquin, & Lemoore 2025.

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4.0.5.5. SUMMARY OF PROJECTIONS

As noted above, the cumulative analysis in this PEIR employs a blend of the two methods for establishing the cumulative environment. These include the “project list” approach discussed above and the “summary of projections” approach which is defined as “a summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, or which described or evaluated regional or areawide conditions contributing to the cumulative impact” (CEQA Guidelines, section 15130(b)). The following summary of projections for the VCIP is based on the relevant information from Fresno County General Plan and other planning documents applicable to the Plan Area and immediately surrounding areas. The intent of this approach is to characterize the extent and pattern of cumulative development through 2040 when the construction of potential VCIP projects will have been completed and all potential VCIP facilities will be operational. As is the case with the list approach, the ‘cumulative study area’ extends for 10 miles beyond the boundaries of the VCIP Plan Area.

Fresno County

The VCIP Plan Area is located entirely within the Westside Valley Area sub-region as defined in the County’s recently adopted General Plan (General Plan) update. This sub-region consists largely of unincorporated land and the incorporated cities of Mendota, Firebaugh, Coalinga, and Huron. The General Plan Land Use Diagram designates almost all of the unincorporated land east of I-5 as “Agriculture” with the exception of the Mendota Wildlife Area which is designated “Open Space.” The “Agriculture” designation provides for production of crops and livestock, and the location of agricultural commercial centers and processing facilities, and very low density rural residential development (i.e., 20-acre minimum parcel size). Small portions of the Plan Area located west of I-5 are designated “Westside Rangeland” which provides for grazing and other agricultural operations, mining, oil and gas development, and open space uses. The lands adjacent to I-5 are designated “Westside Freeway Corridor Overlay” which covers lands within one-mile of the freeway on both sides. This overlay provides for visitor-serving commercial land uses (e.g., hotels, service stations, restaurants, and other uses) at designated interchanges. The southwestern portion of the Plan Area lies within the “Coalinga Regional Plan Area” which consists of the unincorporated area around the City of Coalinga and includes agricultural and rangeland, mineral resource areas, oil fields, and open space (Fresno County 2024b).

The fundamental policy directive of the General Plan is to direct urban development to cities and unincorporated communities. The County’s growth projections for the unincorporated and incorporated areas within and adjacent to the VCIP Plan Area indicate an overall population increase of approximately 7,250 persons between 2025 and 2040, reflecting an overall 10.3 percent increase or an average annual growth rate of 0.75 percent over the 15-year period (CDOF 2024). Most of this growth is expected to occur in the cities of Mendota, Firebaugh, and Coalinga, with smaller growth increments projected for the cities of Huron and San Joaquin and the unincorporated communities of Cantua Creek, Three Rocks/El Porvenir, and Tranquillity (Fresno County 2023b). The general plans for the mentioned cities include ample areas designated for residential and accompanying non-residential development that would accommodate the projected growth through 2040 (Fresno County 2024b, City of Mendota 2009, City of Firebaugh 2009, City of Coalinga 2009, City of Huron 2007, City of San Joaquin 2014).

Kings County

The southeastern portion of the VCIP Plan Area is located adjacent to the southwestern portion of Kings County. The areas of Kings County located within approximately 10 miles of the VCIP boundary consist mainly of

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unincorporated lands, as well as the cities of Lemoore and Avenal, the unincorporated communities of Kettleman City and Stratford, and Naval Air Station Lemoore. The Kings County General Plan designates most of the unincorporated rural areas as General Agriculture and designates lands in the vicinity of NAS Lemoore as Exclusive Agriculture. The Kings County General Plan's land use policy is to direct urban growth in the unincorporated area to the communities of Kettleman City and Stratford (Kings County 2010a).

Between 2025 and 2040, the Kings County's total population (incorporated and unincorporated) is projected to increase by approximately 7,000 persons, reflecting an overall increase of 4.6 percent or an average annual growth rate of 0.3 percent over the 15-year period (CDOF 2024). The population of NAS Lemoore is expected to remain flat (Kings County 2010a). Most of the projected growth is expected to take place in the incorporated cities and unincorporated communities. The general plans for the mentioned cities and communities include ample areas designated for residential and accompanying non-residential development that would accommodate the projected growth through 2040 (Kings County 2010a, City of Lemoore 2008, City of Avenal 2018).

Merced County

A sliver of southwestern Merced County lies within 10 miles of the northernmost extent of the VCIP Plan Area. The areas of Merced County located within this portion of the VCIP cumulative study area consist entirely of sparsely populated and unincorporated rural lands bisected by the I-5 freeway. Within this area, the Merced County General Plan designates the lands east of I-5 as "Agricultural" and the lands west of I-5 as "Foothill Pasture." These are areas where agricultural land is to be protected, and where agricultural processing and support functions are to be accommodated. The area around the I-5/Nees Avenue Interchange is designated "Highway Interchange Center" which is intended to accommodate commercial uses oriented to highway travelers (Merced County 2013).

Between 2025 and 2040, the Merced County's total population (incorporated and unincorporated) is projected to increase by approximately 32,000 persons, reflecting an overall increase of 10.7 percent or an average annual growth rate of 0.75 percent over the 15-year period (CDOF 2024). It is expected that most of this growth will occur in the incorporated cities and unincorporated communities in the County, and that very little of this population increase and associated development will occur within the VCIP cumulative study area.

Madera County

A relatively narrow band of Madera County located along the northeast bank of the San Joaquin River is located within the VCIP cumulative study area. This area consists entirely of cultivated and fallowed farmlands with one dairy and two agricultural processing facilities. The Merced County General Plan designates this entire area as "Agriculture" which primarily allows agricultural uses and support service uses and similar and compatible uses (Madera County 1995).

Between 2025 and 2040, Madera County's total population (incorporated and unincorporated) is projected to increase by approximately 3,500 persons, reflecting an overall increase of 2.2 percent or an average annual growth rate of 0.15 percent over the 15-year period (CDOF 2024). It is expected that most of this growth will occur in the incorporated cities and unincorporated communities in the County, and that very little of this population increase and associated development will occur within the VCIP cumulative study area.

It should be noted that three of the above counties (Fresno, Kings, Merced) allow solar generating facilities within Agricultural zones subject to the approval of a Conditional Use Permit. All known solar projects within the cumulative study area are listed in Table 4.0-2 above. While additional solar and electrical infrastructure projects may be proposed within the study area between 2025 and 2040, any attempt to estimate the location, size, and {00081326.1}

timing of such projects would be too speculative to contribute to meaningful analysis (see CEQA Guidelines, section 14145).

4.0.6. References

- CDOF 2024 California Department of Finance (CDOF), Demographic Research Unit. March 2024. *Report P-2A: Total Population Projections, California Counties, 2020-2060*. <https://dof.ca.gov/forecasting/demographics/projections/>
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