SECTION 4: CUMULATIVE EFFECTS

4.1 - Introduction

CEQA Guidelines Section 15130 requires the consideration of cumulative impacts within an EIR when a project's incremental effects are cumulatively considerable. Cumulatively considerable means that " . . . the incremental effects of an individual 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." In identifying projects that may contribute to cumulative impacts, the CEQA Guidelines allow the use of a list of past, present, and reasonably anticipated future projects, producing related or cumulative impacts, including those which are outside of the control of the lead agency.

In accordance with CEQA Guidelines Section 15130(b), " . . . the discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, the discussion need not provide as great [a level of] detail as is provided for the effects attributable to the project alone." The discussion should be guided by standards of practicality and reasonableness, and it should focus on the cumulative impact to which the identified other projects contribute rather than on the attributes of other projects that do not contribute to the cumulative impact.

The proposed project's cumulative impacts were considered in conjunction with other proposed and approved projects in the City of Woodland, Yolo County, the City of Davis, and Solano County. Table 4-1 provides a list of the other projects considered in the cumulative analysis.

Table 4-1: Cumulative Projects

Jurisdiction	Project	Characteristics	Location	Status
City of Woodland	Optimistic Partners	Tentative Parcel Map to subdivide a 19.97-acre parcel into two parcels for purposes of sale only; no development rights or improvements are associated. The two parcels will consist of one 8.9-acre site zoned for residential and one 11.07-acre site zoned for park and neighborhood commercial.	North of the future extension of Farmers Central Road.	Pending
	Parkview by SLC IV Woodland Spring Lake, LLC	A proposed Spring Lake Specific Plan Amendment to rezone a 10-acre school site and a 6.22-acre multi-family residential R-20 site to Residential single-family R-8; a proposed Tentative	East of Miekle Avenue and north of Heritage Parkway.	Pending

Table 4-1 (cont.): Cumulative Projects

Jurisdiction	Project	Characteristics	Location	Status
City of Woodland (*cont.*)	Parkview by SLC IV Woodland Spring Lake, LLC (*cont.*)	Subdivision Map to develop 108 single-family lots at a proposed density of 6.67 dwelling units per acre; modify the Housing Element Inventory of Available Sites and a Development Agreement		
	Velocity Island Wake Board Park	A proposed cable wakeboard park within the City's 15-acre Dubach Detention Basin	755 North East Street	Pending
	Woodland Commerce Center	A proposed annexation for 146 acres of land with a GP designation of Industrial and pre-zoned Industrial	Located at the northwest corner of East Main Street and County Road 102	Pending
	California Produce Market	4, 990-square-foot produce market on septic	1490 East Main Street	Approved
	Comfort Inn & Suites	39,519-square-foot, 66-room hotel	Freeway Drive	Approved
	CommuniCare	21,053-square-foot medical office building (health clinic)	10 North Cottonwood Street	Approved
	State Courthouse facility	Courthouse facility	1000 Main Street	Approved
	Target Warehouse Expansion	364,000-square-foot expansion to the existing building, under construction	2005 E. Beamer Street	Approved; Under construction
	Spring Lake Specific Plan Tentative Maps	4,149 residential units; approximately 1,100 units already constructed	South of Gibson Road and west of County Road 102	Approved; Partially constructed
	Blackpine Holdings	Tentative Map Tentative Subdivision Map No. 4581 to subdivide APNs 066-122-060 totaling 5.65 acres into 34 single-family lots and four halfplex lots.	Molly Avenue and Betty Avenue	Approved
County of Yolo	Dunnigan Hills Wind Met Towers	Six 197-foot-tall temporary meteorological wind towers	Dunnigan Hills/ Hungary Hollow area	Pending
	Teichert Schwarzgruber Mining and Reclamation Project	40.7 acres of surface mining and subsequent reclamation of 93.9 acres	16550 County Road 96, Woodland	Pending
	Esparto	41,300-square-foot pool	25747 Grafton Street,	Pending

Table 4-1 (cont.): Cumulative Projects

Jurisdiction	Project	Characteristics	Location	Status
	Community Park	complex including public swimming pool and aquatic center; softball/little league field; two soccer fields; basketball court; picnic area; pedestrian path; 0.32-acre detention basin	Esparto	
	Clark Pacific Expansion	Rezone and Tentative Subdivision Map to allow increased industrial activity on 146.2 acres	County Road 101 between County Road 18c and Best Ranch Road, northeast of Woodland	Approved
	Northern Recycling Use Permit	Green waste recycling facility expansion	Zamora	Pending
	Dunnigan Mobile Home Park	Addition of 150 units to existing mobile home park expansion	Dunnigan	Pending
	Dunnigan Truck Travel Center	Tentative map for 100-acres of highway commercial uses	Dunnigan	Approved
	Orciuoli Subdivision	Tentative map for 180 residential units	Esparto	Approved
	Storey Subdivision	Tentative map for 78 residential units	Esparto	Approved
	E. Parker Subdivision	Tentative map for 68 residential units	Esparto	Approved
	Lopez Subdivision	Final map for 72 residential units (approximately 14 vacant lots remain)	Esparto	Approved
	White Subdivision	Final map for 63 residential lots (approximately 41 vacant lots remain)	Knights Landing	Approved
	Exsolerant Solar	1.5-MW solar facility	South of Madison	Pending
	Putah Creek Solar	3.5-MW solar facility	West of Winters	Approved (pending litigation)
	Results Radio	350-foot-tall radio tower	County Landfill	Approved (pending litigation)
	UCD West Village	662 apartments; 343 single-family homes; 42,500 square feet of retail space; 4-MW PV facility	University of California, Davis Campus	Approved

Table 4-1 (cont.): Cumulative Projects

Jurisdiction	Project	Characteristics	Location	Status
City of Davis	Willowbank Park Subdivision	15 single-family homes	Mace Boulevard between San Marino Drive and Redbud Drive	Pending
Solano County	Slaughter House Use Permit	Use permit time extension for slaughterhouse with incidental employee housing	8476 Wild Rose Lane, Dixon	Pending
Sources: City of Woodland, 2012; Yolo County, 2012; City of Davis, 2012; Solano County, 2012.				

4.2 - Cumulative Impact Analysis

CEQA requires the analysis of a project's incremental effect combined with the effects of other past, present, and probable future projects. Such an effect is known as a cumulative impact.

In a cumulative impacts analysis, there are two key questions:

(1) Is the combined impact of the project and other projects significant, and
(2) Is the project's incremental effect cumulatively considerable?

A lead agency may find that the cumulative impact that will result from the combination of the project's incremental impact and the effects of other projects is not significant. Alternatively, a lead agency may find that the project's incremental effect is not cumulatively considerable and that the project's cumulative effect is therefore not significant. Note that, in some case, the project's individual impact will be insignificant, but a related cumulative impact will be significant.

The cumulative impact analysis below is guided by the requirements of CEQA Guidelines Section 15130. Other key principles established by this section include:

- A cumulative impact only occurs from impacts caused by the proposed project and other projects. An EIR should not discuss impacts that do not result from the proposed project.
- When the combined cumulative impact from the increment associated with the proposed project and other projects is not significant, an EIR need only briefly explain why the impact is not significant; detailed explanation is not required.
- An EIR may determine that a project's contribution to a cumulative effect impact would be rendered less than cumulatively considerable if a project is required to implement or fund its fair share of mitigation intended to alleviate the cumulative impact.

The cumulative impact analysis that follows relies on these principles as the basis for determining the significance of the proposed project's cumulative contribution to various impacts.

4.2.1 - Aesthetics, Light, and Glare

The geographic scope of the cumulative aesthetics, light, and glare analysis are the areas surrounding the project sites. This is the area within view of the project sites; therefore, the areas most likely to experience changes in visual character or experience light and glare impacts.

The proposed project consists of the development of a 5-megawatt (MW) photovoltaic (PV) facility and environmental education center at the Grasslands site and an 0.8-MW PV facility at the Cottonwood/Beamer site. The PV facilities would consist of panels with anti-reflective glass mounted on steel tracking structures. The environmental education center would consist of a 2,000-square-foot building and a 500-square-foot park host site, trails, picnic areas, and wildlife viewing areas.

As shown in Table 4-1, other development projects in both project site vicinities have the potential to alter the visual character of the area. These projects would be subject to design and landscaping requirements to ensure that they do not degrade visual character and comply with applicable General Plan and Zoning Ordinance standards. Therefore, the governing land use regulations would ensure that the proposed project, in conjunction with other planned or approved projects, would not have cumulatively considerable aesthetic impacts.

Other projects in the site vicinities may include lighting and glare sources. These projects would be subject to design requirements to ensure potential impacts are minimized. Pole-mounted exterior security lighting would be installed at both project site entrances. Wall-mounted exterior security lighting would be installed at the environmental educational center and may occur at the park host site. Lights would be downward facing and sensor controlled to reduce offsite illumination, and would remain on from dusk to dawn. However, given the small amount of spillover light, intervening landscaping, and distance from other projects, the proposed project would not have the potential to have a cumulative contribution to lighting impacts.

The proposed project also would not create a new source of substantial glare that would adversely affect day or nighttime views in the area. The solar PV panels would be black in color and absorptive rather than reflective. By design, the solar PV panels would absorb sunlight to maximize electrical output and use anti-reflective glass, resulting in approximately half the reflectance of standard residential and commercial glass. Because of the limited rotation angles, the solar PV panels have no potential for reflecting the sun's rays upon any ground-based observer offsite. As such, the proposed project would not have the potential have a cumulative contribution to glare impacts.

4.2.2 - Agricultural Resources

The geographic scope of the cumulative agricultural resources analysis is Yolo County. Agricultural resources are evaluated here in the context of countywide resources because the County has adopted a number of policies and plans that are designed to facilitate smart growth and preserve agricultural resources within its boundaries; therefore, it is appropriate to use this as the basis for assessing cumulative impacts.

Several of the projects listed in Table 4-1 may be located on land mapped as Important Farmland or encumbered by Williamson Act contracts and, therefore, would have the potential to convert farmland to non-agricultural use. The proposed project would not convert Important Farmland to non-agricultural uses and is not located on Williamson Act encumbered lands. As such, the proposed project would not have the potential to have a cumulative contribution to the conversion of Important Farmland.

4.2.3 - Air Quality

The geographic scope of the cumulative air quality analysis is the Sacramento Federal Nonattainment Area. Air pollution is regarded as a regional issue; therefore, this area would be the area most likely to be impacted by project emissions.

The Yolo-Solano Air Quality Management District (Air District) provides the following recommended cumulative impact threshold: Any proposed project that would individually have a significant air quality impact would also be considered to have a significant cumulative impact. The Air District recommends that cumulative impacts be screened using their screening criteria for project-level thresholds.

As required by California law, city and county general plans contain a land use element that details the types and quantities of land uses that the city or county estimates will be needed for future growth, and that designates locations for land uses to regulate growth. Growth estimates used in a general plan often come from the State of California's Department of Finance. The air quality plan uses the growth projections and land use information in adopted general plans to estimate future average daily trips and then vehicle miles traveled (VMT), which are then provided to Air District to estimate future emissions in the Air Quality Attainment Plans (AQAPs). Existing and future pollutant emissions computed in the AQAP were based on land uses and growth projections from area general plans. These emissions form the emissions budget used by the Air District to demonstrate air quality conformity for the Regional Transportation Plan. The future emissions, combined with emissions from all other sources, are modeled in the Air District's regional air quality models to determine the reductions required to attain the air quality standards by the applicable federal deadline. AQAPs detail the control measures and emission reductions required for reaching attainment of the air standards.

As shown in Section 3.3, Air Quality, the project is consistent with the applicable AQAP. Other projects may or may not be consistent with the land use and growth projections set forth in the applicable General Plan. However, because the proposed project is consistent with the AQAP, it would not have a cumulative significant contribution to inconsistency with the clean air plans.

All of the projects listed in Table 4-1 would result in new air emissions during construction or operations (or both). The proposed project would emit construction and operational emissions at levels that would not exceed the Air District's thresholds after the implementation of fugitive construction dust best management practices. Other projects that exceed Air District's thresholds would also be required to implement feasible emissions reductions measures. Because the proposed project's emissions would not exceed Air District's thresholds, it would not significantly cumulatively contribute to impacts related to air quality violations.

Most of the projects listed in Table 4-1 would result in some net increase of operational criteria pollutants for which the Air Basin is classified as "nonattainment." The solar facilities may or may not result in a net increase of operational criteria pollutants. However, because the proposed project is less than the Air District's thresholds for operational criteria pollutants, its net increase is not considered cumulatively considerable. Emissions of criteria pollutants from other projects may or may not be considered cumulatively considerable. Because the proposed project's net increase is not cumulatively considerable, it would not have a cumulative contribution to nonattainment of criteria pollutants.

Several of the projects listed in Table 4-1 could potentially release sources of objectionable odors. Odor impacts were scoped out of this EIR, as the project was found to have no impact for exposing substantial numbers of people to offensive odors. Therefore, the project would not cumulatively contribute to impacts related to objectionable odors.

4.2.4 - Biological Resources

The geographic scope of the cumulative biological resources analysis is the vicinity of each project site. Biological impacts tend to be localized; therefore, the areas near the project sites would be most affected by project activities.

Development of projects in the project vicinity may have the potential to impact special-status species or sensitive natural communities. These projects would be required to mitigate for impacts. The proposed project would have the potential to adversely affect special-status species (Swainson's hawk, burrowing owl, nesting birds, and valley elderberry longhorn beetle). Mitigation is proposed to reduce potential impacts on species to a level of less than significant. Therefore, the proposed project, in conjunction with other projects, would not have cumulatively considerable special-status species impacts.

Other project in the vicinity of the project sites may result in significant impacts related to federally protected wetlands, migratory wildlife corridors, local policies or ordinances protecting biological resources, or conflicts with habitat conservation plans. These projects would be required to mitigate for impacts. The proposed project would not result in impacts related to federally protected wetlands, migratory wildlife corridors, local policies or ordinances protecting biological resources or conflicts with habitat conservation plans. Therefore, the proposed project, in conjunction with other projects, would not have cumulatively considerable special-status species impacts.

4.2.5 - Cultural Resources

The geographic scope of the cumulative cultural resources analysis is the vicinity of each project site. Cultural resource impacts tend to be localized; therefore, the areas near the project sites would be most affected by project activities (generally within a 500-foot radius).

Development projects in the vicinity may have the potential to impact cultural resources. These projects would be required to mitigate for impacts. The project sites do not contain any recorded historic, archaeological, or paleontological resources or burial sites, although there is the possibility that previously undiscovered resources could be encountered by subsurface earthwork activities. The implementation of standard construction mitigation measures would ensure that undiscovered cultural resources are not adversely affected by project-related construction activities, which would prevent the destruction or degradation of potentially significant cultural resources. For these reasons, the proposed project would not result in significant changes to the existing ambient cultural resources environment. Therefore, cumulative impacts are anticipated to be less than significant, and the proposed project, in conjunction with other planned or approved projects, would not have cumulatively considerable cultural resources impacts.

4.2.6 - Geology, Soils, and Seismicity

The geographic scope of the cumulative analysis regarding potential geologic, seismic, and soil impacts is limited to the project site and the immediate project vicinity. Geologic, seismic, and soil impacts are typically localized and generally do not extend past the area of disturbance. Since geologic, seismic, and soil impacts are typically site-specific, the proposed project and related projects would not result in significant cumulative impacts.

Additionally, the project-level analysis determined that impacts associated with strong seismic ground shaking, liquefaction, lateral spreading, subsidence, and expansive soils would be less than significant. Since the general project region shares similar geologic, seismic, and soil characteristics, it is reasonable to assume that other projects would also result in less than significant impacts or incorporate mitigation into their design and construction to reduce their impacts and contain any potential impacts to their individual project sites. Therefore, the proposed project's contribution to geologic, seismic, and soil impacts, along with other projects' contributions, would be less than cumulatively considerable.

4.2.7 - Greenhouse Gas

The geographic scope of the cumulative greenhouse gas analysis is Yolo County. Although greenhouse gas pollution is regarded as a global issue, emission reduction regulation and implementation is currently being addressed on a federal, state, and county level. Because Yolo County has an adopted Climate Action Plan that includes measures required to achieve the State's mandatory emission reduction goal for year 2020, the County would be the area to assess cumulative greenhouse gas emissions.

Other projects would also emit new greenhouse gas emissions. The Grasslands site would offsite over 2,990 metric tons of carbon dioxide equivalent ($MTCO_2e$), and the Beamer/Cottonwood site would offset 485 $MTCO_2e$ in the first year of project operation. The project would, therefore, reduce greenhouse gas emissions associated with energy production by approximately 3,480 $MTCO_2e$ in the first year of operation. In addition, the project would implement energy efficiency, water efficiency, and renewable energy measures of the Yolo County CAP. Therefore, the proposed project would not have a related cumulatively considerable greenhouse gas or greenhouse gas reduction plan consistency impact.

4.2.8 - Hazards and Hazardous Materials

The geographic scope of the cumulative hazards and hazardous materials analysis is the vicinity of the project sites. Adverse effects of hazards and hazardous materials tend to be localized; therefore, the areas near the project sites would be most affected by project activities.

There are no recognized environmental constraints within the project sites or surrounding areas. Construction activities associated with other development projects would make a minimal contribution to cumulative hazards from past and present uses; however, such effects are highly localized and would have no possibility to overlap with the proposed project. Therefore, it is reasonable to conclude that any potential contamination present on other sites would not have the potential to cause cumulatively considerable impacts.

The proposed project would not result in the use or transport of substantial quantities of hazardous materials, emit hazardous substances, impair emergency response or evacuation, or expose persons to significant risks from wildfire; therefore, the proposed project would not have cumulatively considerable effects on these issue areas. As such, the proposed project would not have the potential to cause an incremental contribution to hazards in the vicinity of the project sites. It is reasonable to assume that other projects would implement mitigation that would require proper abatement of potential hazards; therefore, cumulative impacts are anticipated to be less than significant, and the proposed project, in conjunction with other projects, would not have cumulatively considerable hazards and hazardous materials impacts.

4.2.9 - Hydrology and Water Quality

The geographic scope of the cumulative hydrology and water quality analysis is the vicinity of the project sites. Hydrologic and water quality impacts tend to be localized; therefore, the areas near the project sites would be most affected by project activities.

Development projects in the vicinity of the project sites may have the potential to create sources of short-term and long-term water pollution. These projects would be required to mitigate for impacts by providing stormwater pollution prevention measures. The proposed project would involve short-term construction activities that would have the potential to degrade water quality in downstream water bodies. Mitigation is proposed that would require implementation of various construction and operational water quality control measures that would prevent the release of pollutants into downstream waterways.

Development projects in the vicinity of the project sites may have the potential to increase impervious surface coverage and, therefore, may result in increased runoff volumes in downstream waterways. These projects would be required to provide drainage facilities that collect and detain runoff such that offsite releases are controlled and do not create flooding. The proposed project would largely maintain the existing pervious surface coverage of the sites and would not create the potential for additional discharge of urban pollutants into downstream waterways. Therefore, the proposed project, in conjunction with other planned and approved projects, would not have a cumulatively considerable impact on hydrology and water quality.

4.2.10 - Land Use and Planning

The geographic scope of the cumulative land use analysis is the County of Yolo, including the City of Woodland. Land-use decisions are made at the County-level for unincorporated areas and at the City-level for incorporated areas; therefore, the County of Yolo area is an appropriate geographic scope.

Development projects in the vicinity of the project sites would be required to demonstrate consistency with all applicable General Plan and Zoning Ordinance requirements. This would ensure that these projects comply with applicable planning regulations. The Grasslands site is designated as Open Space (OS) by the County of Yolo General Plan, and as Agricultural General (A-1) zone by the Yolo County Code. The Grasslands site would be developed with a 5-MW PV facility and environmental education center. As discussed in Section 3.10, Land Use and Planning, these uses would be consistent with the Open Space (OS) and Agricultural General (A-1) designations of the project site.

The Beamer/Cottonwood site is designated as Public Service by the City of Woodland General Plan, and is classified as Single-Family Zone (R-1) by the Woodland Municipal Code. The Beamer/Cottonwood site would be developed with an 0.8-MW PV facility. As discussed in Section 3.10, Land Use and Planning, the PV facility would be consistent with the Public Service land use designation and applicable statutes of the Woodland Municipal Code. Other projects in the County of Yolo or the City of Woodland would be required to be consistent with applicable General Plan and

code requirements. As such, the proposed project, in conjunction with other planned or approved projects, would not have a cumulatively considerable impact on land use.

4.2.11 - Noise

The geographic scope of the cumulative noise analysis is the vicinity of the project sites, including surrounding sensitive receptors. Noise impacts tend to be localized; therefore, the area near the project site would be most affected by project activities.

Construction activities associated with the proposed project may result in substantial sources of noise at nearby receptors. Implementation of mitigation would ensure these impacts are reduced to less than significant. Other planned and approved projects would be required to evaluate construction noise impacts and implement mitigation, if necessary, to minimize noise impacts. In addition, the timing of construction activities associated with other development projects would overlap minimally, if at all, with the proposed project. Furthermore, because noise is a highly localized phenomenon, even if construction activities did overlap in time with the proposed project, distance would diminish any additive effects. Finally, construction noise would generally be limited to daytime hours and would be short-term in duration. Therefore, it is reasonable to conclude that construction noise from the proposed project would not combine with noise from other development projects to cause cumulatively considerable noise impacts.

The proposed project's construction and operational vibration levels would not exceed annoyance thresholds. Because vibration is a highly localized phenomenon, there would be no possibility for vibration associated with the project to combine with vibration from other projects because of their distances from the project site. Therefore, the proposed project would not contribute to a cumulatively considerable vibration impact.

As discussed in Section 3.11, Noise, the proposed project would not contribute towards a substantial permanent increase in ambient noise levels in the surrounding area. Other projects would be required to evaluate contributions on permanent noise increases and, if necessary, mitigate for such impacts. Thus, the proposed project would not combine with other projects to cause a cumulatively considerable increase in ambient noise.

As indicated in Section 3.11, Noise, the proposed project's construction noise would result in a substantial temporary or periodic increase in ambient noise levels. Implementation of mitigation would ensure such impacts would be reduced to less than significant at each project site. Other projects would be required to mitigate for temporary and periodic increases in ambient noise levels. Thus, the proposed project would not combine with other projects to cause a cumulatively considerable temporary or periodic increase in ambient noise levels.

4.2.12 - Public Services

The geographic scope of the cumulative public services analysis is the service area of each of the providers serving the proposed project. Because of differences in the nature of the public service topical areas, they are discussed separately.

Grasslands Fire Protection and Emergency Medical Services

The geographic scope of the cumulative fire protection and emergency medical services analysis for the Grasslands site is the Davis Fire Department service area, which encompasses the City of Davis, No Man's Land Fire Protection District, East Davis County Fire Protection District and a portion of the Springlake Fire Protection District.

The City of Davis Fire Department already serves Grasslands Regional Park. The proposed project would not create a need for new or expanded fire protection facilities and, therefore, would not result in a physical impact on the environment. Other development projects in the City of Davis Fire Department service area would be reviewed for impacts on fire protection and emergency medical services and would be required to address any potential impacts with mitigation. Because demand for fire protection and emergency medical services is highly dependent on a number of factors that vary substantially by project (hours of operation, fire prevention measures, occupancy by sensitive populations, etc.), it is unlikely that there would be substantial overlap in demand between these projects and the proposed project that would result in a cumulatively considerable impact. Therefore, the proposed project, in conjunction with other future projects, would not have a cumulatively considerable impact on fire protection and emergency medical services.

Beamer/Cottonwood Fire Protection and Emergency Medical Services

The geographic scope of the cumulative fire protection and emergency medical services analysis for the Beamer/Cottonwood site is the Woodland Fire Department service area, which encompasses the City of Woodland.

The Woodland Fire Department already serves the Beamer/Cottonwood site. The PV facility would not be expected to generate much demand for fire protection or emergency medical services and, as such, the Fire Department would have adequate resources to serve the PV facility. The proposed project would not create a need for new or expanded fire protection facilities, and, therefore, would not result in a physical impact on the environment. Other development projects in the City of Woodland would be reviewed for impacts on fire protection and emergency medical services and would be required to address any potential impacts with mitigation. Because demand for fire protection and emergency medical services is highly dependent on a number of factors that vary substantially by project (hours of operation, fire prevention measures, occupancy by sensitive populations, etc.), it is unlikely that there would be substantial overlap in demand between these projects and the proposed project that would result in a cumulatively considerable impact. Therefore, the proposed project, in conjunction with other future projects, would not have a cumulatively considerable impact on fire protection and emergency medical services.

Grasslands Police Protection

The geographic scope of the cumulative police protection analysis is the Yolo County Sheriff's jurisdictional area, which encompasses unincorporated areas of Yolo County.

The proposed project would not include permanent residential uses, thereby limiting the number of emergency law enforcement calls originating from the project site. Therefore, the proposed project would not create a need for new or expanded police protection facilities and would not result in a physical impact on the environment. Other development projects in Yolo County would be reviewed for impacts on police protection and would be required to address any potential impacts with mitigation. Because demand for police protection is highly dependent on a number of factors that vary substantially by project (clientele, hours of operation, crime prevention measures, etc.), it is unlikely that there would be substantial overlap in demand that would result in a cumulatively considerable impact. Therefore, the proposed project, in conjunction with other future projects, would not have a cumulatively considerable impact on police protection.

Beamer/Cottonwood Police Protection

The geographic scope of the cumulative police protection analysis is the Woodland Police Department jurisdictional area, which encompasses the City of Woodland.

The proposed project would not include permanent residential uses, thereby limiting the quantity of emergency law enforcement calls originating from the project site. Therefore, the proposed project would not create a need for new or expanded police protection facilities and would not result in a physical impact on the environment. Other development projects in the City of Woodland would be reviewed for impacts on police protection and would be required to address any potential impacts with mitigation. Because demand for police protection is highly dependent on a number of factors that vary substantially by project (clientele, hours of operation, crime prevention measures, etc.), it is unlikely that there would be substantial overlap in demand that would result in a cumulatively considerable impact. Therefore, the proposed project, in conjunction with other future projects, would not have a cumulatively considerable impact on police protection.

Grasslands Park Services

The geographic scope of the cumulative park services analysis is the County of Yolo, which includes multiple County parks used by the general population.

The Grasslands project site would include an environmental education center that would host field trips from Yolo County elementary (K-12) schools. Mitigation proposed throughout this EIR would ensure that impacts resulting from the construction of the new facilities within Grasslands Regional Park would not result in a significant physical impact on the environmental. Other projects in Yolo County that would result in the need for new or physically altered park facilities would also be required to mitigate for any potential environmental impacts. Therefore, the proposed project, in

conjunction with other future projects, would not have a cumulatively considerable impact on park services.

Beamer/Cottonwood Park Services

The geographic scope of the cumulative park services analysis is the City of Woodland, which includes multiple city parks used by the general population .

The Beamer/Cottonwood site would consist of an 0.8-MW PV solar facility. It would not include any features requiring new or altered park facilities and would not result in population growth requiring additional park services. As such, the Beamer/Cottonwood site would have no impacts on park services and, would not contribute to cumulatively considerable impacts.

4.2.13 - Recreation

The geographic scope of the cumulative recreation analysis is the County of Yolo, including the City of Woodland, within which multiple County and City parks used by the general population are included.

The proposed project would not induce substantial population growth either directly or indirectly; therefore, existing recreational facilities would continue to adequately serve the regional population. The Grasslands site would include an environmental education center that would be used for field trips by Yolo County elementary (K-12) schools. Implementation of mitigation would ensure establishment of the environmental education center would not result in adverse physical effects on the environment. Other projects in Yolo County or the City of Woodland would be required to ensure that existing recreation facilities would not be adversely impacted and any recreational facilities implemented would not result in adverse physical effects on the environment, implementing mitigation as necessary. Therefore, the proposed project, in conjunction with other future projects, would not have a cumulatively considerable impact on recreation services.

4.2.14 - Utilities and Service Systems

The geographic scope of the cumulative utility and service systems analysis is the service area of each of the providers serving the proposed project. Because of differences in the nature of the public service topical areas, they are discussed separately.

Grasslands Potable Water

The geographic scope of the cumulative potable water analysis for the Grasslands site is the Sacramento Valley groundwater basin, which provides most of the domestic water in Yolo County. The Sacramento River (South) groundwater subbasin underlies Grasslands Regional Park.

The Grasslands site would utilize minimal amounts of water during construction and would require approximately 13,000 gallons of water for the biannual washing of the PV panels during operation. Water would also be temporarily required for the establishment of landscaping. Potable water would

be provided to the park host site, which would be expected to utilize minimal amounts of water. As such, the Grasslands site would have a low overall demand for water. All future projects would be required to demonstrate that adequate potable water supplies are available, and these projects may be required to implement water conservation measures. Therefore, the proposed project, in conjunction with other planned and approved projects, would not have a cumulatively considerable impact on potable water supply.

Beamer/Cottonwood Potable Water

The geographic scope of the cumulative potable water analysis for the Beamer/Cottonwood site is the City of Woodland municipal water supply service area which impasses the City of Woodland.

The Beamer/Cottonwood site would utilize minimal amounts of water during construction and would require approximately 2,300 gallons of water for the biannual washing of the PV panels during operation. Minimal amounts of water would also be used for the establishment of landscaping. No onsite facilities requiring potable water would be implemented. All future projects would be required to demonstrate that adequate potable water supplies are available, and these projects may be required to implement water conservation measures. Therefore, the proposed project, in conjunction with other planned and approved projects, would not have a cumulatively considerable impact on potable water supply.

Grasslands Wastewater

The geographic scope of the cumulative wastewater analysis for the Grasslands site is the project vicinity. Wastewater impacts from septic systems tend to be localized; therefore, the area near the project site would be most affected

Temporary restroom facilities would be utilized during construction of the Grasslands site. No restroom facilities would be constructed as part of the proposed project. Patrons of the environmental education center would utilize existing portable restroom facilities within Grasslands Regional Park. A small septic system would be constructed to serve the park host site and would be designed and constructed as appropriate for onsite soils and in accordance with Yolo County Code Title 6, Chapter 5, Article 6, and the recommendations of the Department of Public Health of the State and the Public Health Director. Other projects requiring septic systems would be required to abide by applicable standards and regulations. Therefore, the proposed project, in conjunction with other planned and approved projects, would not have a cumulatively considerable wastewater impact.

Beamer/Cottonwood Wastewater

The geographic scope of the cumulative wastewater analysis for the Grasslands site is the project vicinity. Wastewater impacts from septic systems tend to be localized; therefore, the area near the project site would be most affected.

Temporary restroom facilities would be utilized during construction of the Beamer/Cottonwood site. No permanent restroom facilities would be constructed and no wastewater services would be required. Therefore, the proposed project, in conjunction with other planned and approved projects, would not have a cumulatively considerable wastewater impact.

Grasslands Storm Drainage

The geographic scope of the cumulative storm drainage analysis is the downstream waterways that receive runoff from the project site.

Existing storm drainage at the Grasslands site would not be altered and all stormwater created by impervious surfaces would be redirected onsite. Accordingly, the proposed project would not increase the volume of runoff entering downstream waterways; therefore, no incremental contribution to potential cumulative impacts would occur. The proposed project would implement standard pollution prevention measures during construction to ensure that downstream water quality impacts are minimized to the greatest extent possible. All future development projects in the project vicinity would be required to provide drainage facilities that collect and detain runoff such that offsite releases are controlled and do not create flooding or contribute to water quality impacts. Therefore, the proposed project, in conjunction with other projects, would not have a cumulatively considerable impact on storm drainage.

Beamer/Cottonwood Storm Drainage

The geographic scope of the cumulative storm drainage analysis is the downstream waterways that receive runoff from the project site.

Existing storm drainage at the Beamer/Cottonwood site would not be altered. Minimal impervious surface would be created. Accordingly, the proposed project would not increase the volume of runoff entering downstream waterways; therefore, no incremental contribution to potential cumulative impacts would occur. The proposed project would implement standard pollution prevention measures during construction to ensure that downstream water quality impacts are minimized to the greatest extent possible. All future development projects in the project vicinity would be required to provide drainage facilities that collect and detain runoff such that offsite releases are controlled and do not create flooding or contribute to water quality impacts. Therefore, the proposed project, in conjunction with other projects, would not have a cumulatively considerable impact on storm drainage.