3.14 - Utilities and Service Systems

3.14.1 - Introduction

This section describes the existing utilities and service systems potential effects from project implementation on the site and its surrounding area. Descriptions and analysis in this section are based on information provided by the Yolo County General Plan, the Yolo County General Plan EIR, the City of Woodland General Plan, and the Water Resources Association of Yolo County's 2007 Integrated Regional Water Management Plan.

3.14.2 - Environmental Setting

Regional Setting

Water Supplies

Yolo County water supplies consist of a mixture of groundwater and surface water. Table 3.14-1 provides the projected average and drought year water supply and demand for the Yolo County region.

Table 3.14-1: Projected Average and Drought Year Water Supply and Demand (acre-feet per year)

Water Variable	Year (Condition)			
	1995 (Normal)	1995 (Dry Year)	2020 (Normal)	2020 (Dry Year)
Total Water Demand	915,000	1,070,000	927,000	1,069,000
Total Water Supply	924,000	1,041,000	936,000	1,070,000
Shortfall/Surplus	9,000	-29,000	9,000	1,000

Source: Background Data and Information Appendix (Appendix A of the IRWMP) within the Water Resources Association of Yolo County's 2007 Integrated Regional Water Management Plan.

Groundwater Supplies

Aquifers located beneath Yolo County are contained within either the older, thick alluvial and river sediments of the Tehama formation, or the younger sediments of the Red Bluff formation, floodplain deposits, and stream channel deposits that overlay the Tehama formation. Aquifers are unconfined near the surface and become increasingly confined with depth. There are no regionally continuous barriers to vertical groundwater flow, but suspended clays and silts create a cumulative impediment to vertical flow with increasing depth. Older, deeper sediments are generally more compact and less permeable than younger, shallower sediments.

The natural hydraulic gradient of groundwater is toward the east and south, roughly following the topographic incline. Groundwater pumping has had an impact on this gradient by creating localized depressions in the water table and land subsidence beneath areas of more intensive groundwater pumping.

Regionally, the development of surface waters (e.g., reservoirs, recharge basins) has relieved some of the stress on aquifers located beneath Yolo County, although localized groundwater effects are still evident beneath areas dependent on groundwater as a primary water supply, including the City of Woodland, the City of Davis and the general UC Davis area, and the Yolo-Zamora Water District service area.

The aquifers are recharged by runoff and groundwater from the east-facing foothills, by percolation of precipitation, and by infiltration of surface water. Surface water infiltration is provided by the creeks and streams that flow from the Coast Ranges into the County, from delivered and applied irrigation water, from Sacramento and Feather River flood waters diverted to the Yolo Bypass, from the Sacramento River, and from the Sacramento River Deep Water Ship Channel that extends south from West Sacramento.

Groundwater quantity and quality vary, depending on location within the County. For this reason, the County is segmented into individual groundwater subbasins, as described below, to better characterize groundwater conditions throughout the region.

Yolo County is contained completely within the Sacramento Valley Groundwater Basin. According to the Water Resources Association of Yolo County's 2007 Integrated Regional Water Management Plan (IRWMP), Yolo County overlays the Capay Valley, Buckeye Creek, Dunnigan Hills, West Yolo, East Yolo, and Sacramento River subbasins.[1]

Surface Water Supplies

Aside from groundwater supplies, Yolo County also depends on many different surface water supply sources. Most surface runoff that affects Yolo County originates outside of the County. As defined by DWR, Yolo County is a small portion (approximately 3.8 percent [1,034 square miles]) of the larger Sacramento Hydrologic Region, which covers 26,960 square miles of land. The principal watersheds that affect Yolo County include the Sacramento River, Yolo Bypass, Cache Creek, Willow Slough, and Putah Creek.

Reclaimed Water

Reclaimed water from wastewater treatment facilities is used in Yolo County. Uses of reclaimed water include irrigation of agricultural fields and ornamental landscaping. The State regulates specific uses of reclaimed water. The level of prior treatment determines how the reclaimed water can be used. Tertiary treatment is generally required for human contact, as on golf courses and ornamental landscaping, or human consumption as on food crops. Secondary treatment may be adequate for other uses, such as fodder crops.

[1] It is important to note that the IRWMP deviated from the California Department of Water Resources' [DWR] Bulletin 118 when identifying these subbasins, attempting to more concisely characterize the groundwater hydrology of the county and better coincide with political boundaries under which water management occurs in Yolo County determining these subbasins. According to Bulletin 118, Yolo County overlays portions of the Capay Valley, Colusa, Yolo, and Solano subbasins.

The Regional Water Quality Control Board (RWQCB) also restricts discharge of reclaimed water to land. Where land discharge is allowed, it is regulated in order to protect groundwater resources. Nitrate removal is required in many cases where the reclaimed water would percolate to groundwater basins that are used for domestic water supply, although secondary treatment may be sufficient depending on soil conditions.

Sewer and Septic Systems

Numerous different municipal wastewater systems and agencies currently serve the cities, towns, and communities located in Yolo County. Incorporated cities within the County are often served by their own municipal wastewater treatment systems that commonly conduct secondary and/or tertiary treatment, while some unincorporated portions of the County are served by these same systems. Absent municipal systems, private onsite septic systems are the most common method of wastewater treatment in the unincorporated parts of the County.

Disposal of treated wastewater, after treatment by a municipal, private or community facility, usually occurs by discharge to a water body, by evaporation pond or percolation basin, or by irrigation of farmland and ornamental landscaping. Tertiary treatment, resulting in the removal of nutrients and nearly all suspended organic matter, is now commonly required for discharges to water, particularly where there is potential for human contact. Tertiary reclaimed water from wastewater treatment facilities is increasingly used for the irrigation of agricultural fields, landscaping, and golf courses.

Stormwater and Drainage

While stormwater drainage facilities are abundant in most of the incorporated cities within Yolo County, such facilities in the unincorporated portions of the County are limited. Much of the County's existing drainage system is in subpar condition and requires improvements that often exceed the capacity of local service districts. As a result, localized flooding during storm events is a common occurrence. Agricultural land uses typically employ onsite ditches that convey surface water to existing adjacent roadside ditches. These roadside ditches, however, were only engineered to convey surface runoff from the paved roadway and were never designed to serve as an informal flood control system. Future residential, commercial, and industrial development within and adjacent to existing communities would require an onsite collection network (e.g., curbs and gutters) to convey runoff to onsite detention basins or to future community basins. Management of these types of facilities requires either the expansion of responsibilities for an existing service district or the creation of a new service district.

Energy

Pacific Gas and Electric Company (PG&E) is one of the largest combination natural gas and electric utilities in the State. PG&E provides natural gas and electric service to approximately 15 million people throughout a 70,000-square-mile service area in northern and central California. PG&E's service area stretches from Eureka in the north to Bakersfield in the south, and from the Pacific Ocean in the west to the Sierra Nevada in the east. PG&E's delivery infrastructure encompasses 141,215

circuit miles of electric distribution lines and 18,616 circuit miles of interconnected transmission lines, and 42,141 miles of natural gas distribution pipelines and 6,438 miles of transportation pipelines (Pacific Gas and Electric Company 2012).

Project Site Setting

Grasslands Site

Water

Similar to most of the rural, unincorporated portions of Yolo County, the areas surrounding the Grasslands site generally rely on onsite, privately owned and maintained water delivery systems such as wells. The Grasslands site is not located adjacent to backbone water supply infrastructure, Community Service District, or County Service Area. An existing potable water well is located within the developed area of Grasslands Regional Park and is currently used by the existing park host. This well has also been used in the past for irrigation. The well produces 425 gallons per minute (25,500 gallons per hour) and is approximately 300 feet deep. The current park host uses approximately 5 gallons per hour during peak operation.

Wastewater

Much like water infrastructure, no backbone wastewater conveyance infrastructure occurs adjacent to the project site. The majority of nearby land uses generally rely on onsite, privately owned and maintained septic systems for wastewater disposal.

Stormwater

Largely because of the rural, undeveloped nature of the Grasslands site, no stormwater drainage infrastructure, including storm drains, swales, or basins, occurs on the project site. An agricultural ditch is located along the northern and western periphery of the site adjacent to County Road 35 and County Road 104, but generally, these types of ditches were only engineered to convey surface runoff from the paved roadway and were never designed to serve as an informal flood control system. In the existing condition, stormwater runoff is either contained onsite at depressed areas and allowed to evaporate or percolate, or is allowed to sheet flow offsite onto adjacent ditches, roads, and properties.

Energy

No electrical infrastructure is currently located on the Grasslands site. Two PG&E interconnection points occur in the project area: PG&E feeder #62041112 near the intersection of County Road-104 and County Road-35, and PG&E feeder #62041107 along Tremont Road.

Beamer/Cottonwood Site

Water

Water in the vicinity of the Beamer/Cottonwood site is provided by the City of Woodland's Public Works Department, who maintains and operates the City's water delivery infrastructure. The City's water service area encompasses approximately 14.5 square miles, with 19 operational groundwater wells that pump into the City's distributing pipe system. The City relies entirely on groundwater for its water supply.

Wastewater

Similar to water service, wastewater disposal service in the vicinity of the Beamer/Cottonwood site is provided by the City of Woodland's Public Works Department, which maintains and operates the City's wastewater conveyance infrastructure. The City owns and operates the Water Pollution Control Facility (WPCF), which—since its 2-year expansion and upgrade—can now operate at a capacity of 10.4 million gallons per day (mgd). The WPCF is now considered a class V facility and a tertiary (advanced) treatment system.

Stormwater

The City of Woodland's Public Works Department is responsible for the operation and maintenance of the City's stormwater drainage facilities. The City's drainage infrastructure consists of collection, conveyance, detention, and pumping facilities. Ultimately, stormwater is pumped into a channel, which discharges into the Yolo Bypass. The City requires future development to implement extensions of the storm drainage system, as needed.

Energy

No electrical infrastructure is currently located on the Grasslands site. However, the adjacent Yolo County campus does contain an array of electrical infrastructure, including connection opportunities for the proposed solar energy facility.

3.14.3 - Regulatory Framework

State

California Green Building Standards Code

The California Green Building Standard Code was adopted January 12, 2009. Its purpose is to improve public health, safety, and general welfare by enhancing the design and construction of buildings through the use of building concepts having a positive environmental impact and encouraging sustainable construction practices in the following categories:

- Planning and design
- Energy efficiency
- Water efficiency and conservation
- Material conservation and resource efficiency
- Environmental air quality

The Code addresses exterior envelope, water efficiency, and material conservation components. The aim is to reduce energy usage in non-residential buildings by 20 percent by 2015 and help meet reductions contemplated in Assembly Bill (AB) 32. With the 2008 Building Code, a 15-percent energy reduction over the 2007 edition is expected. Compliance will be mandatory as of January 1, 2011.

California Urban Water Management Planning Act

The Urban Water Management Planning Act (California Water Code Sections 10610-10656) requires that all urban water suppliers with at least 3,000 customers prepare urban water management plans and update them every 5 years. The act requires that urban water management plans include a description of water management tools and options used by that entity that will maximize resources and minimize the need to import water from other regions. Specifically, urban water management plans must:

- Provide current and projected population, climate, and other demographic factors affecting the supplier's water management planning;
- Identify and quantify, to the extent practicable, the existing and planned sources of water available to the supplier;
- Describe the reliability of the water supply and vulnerability to seasonal or climatic shortage;
- Describe plans to supplement or replace that source with alternative sources or water demand management measures;
- Describe the opportunities for exchanges or transfers of water on a short-term or long-term basis (associated with systems that use surface water);
- Quantify past and current water use;
- Provide a description of the supplier's water demand management measures, including schedule of implementation, program to measure effectiveness of measures, and anticipated water demand reductions associated with the measures;
- Assess the water supply reliability.

Pursuant to the Urban Water Management Planning Act, the City of Patterson prepared and maintains an Urban Water Management Plan.

Model Water Efficient Landscape Ordinance

The Model Water Efficient Landscape Ordinance was adopted by the Office of Administrative Law in September 2009 and requires local agencies to implement water efficiency measures as part of its review of landscaping plans. Local agencies can either adopt the Model Water Efficient Landscape Ordinance or incorporate provisions of the ordinance into code requirements for landscaping. For new landscaping projects of 2,500 square feet or more that require a discretionary or ministerial approval, the applicant is required to submit a detailed "Landscape Documentation Package" that discusses water efficiency, soil management, and landscape design elements.

California Integrated Waste Management Act

To minimize the amount of solid waste that must be disposed of by transformation and land disposal, the State Legislature passed AB 939, the California Integrated Waste Management Act of 1989, effective January 1990. The legislation required each local jurisdiction in the State to set diversion requirements of 25 percent by 1995 and 50 percent by 2000; established a comprehensive statewide system of permitting, inspections, enforcement, and maintenance for solid waste facilities; and authorized local jurisdictions to impose fees based on the types or amounts of solid waste generated. In 2007, Senate Bill 1016, Wiggins, Chapter 343, Statutes of 2008, introduced a new per capita disposal and goal measurement system that moves the emphasis from an estimated diversion measurement number to using an actual disposal measurement number as a per capita disposal rate factor. As such, the new disposal-based indicator (pounds per person per year) uses only two factors: a jurisdiction's population (or in some cases employment) and its disposal as reported by disposal facilities. The Stanislaus County Regional Solid Waste Planning Agency's[2] disposal rate goal is 5.7 pounds per person per year. In 2008, the agency's reported disposal rate was 3.9 pounds per person per year.

California Public Utilities Commission

The California Public Utilities Commission (CPUC) regulates privately owned telecommunication, electric, natural gas, water, railroad, rail transit, and passenger transportation companies. It is the responsibility of the CPUC to (1) assure California utility customers have safe, reliable utility service at reasonable rates, (2) protect utility customers from fraud, and (3) promote a healthy California economy. The Public Utilities Code, adopted by the legislature, defines the jurisdiction of the CPUC.

Title 24, California's Energy Efficiency Standards for Residential and Nonresidential Buildings

Title 24, Part 6, of the California Code of Regulations establishes California's Energy Efficiency Standards for Residential and Nonresidential Buildings. The standards were updated in 2005 and amended in 2008. The 2008 standards set a goal of reducing growth in electricity use by 561.2 gigawatt-hours per year (GWh/y) and growth in natural gas use by 19 million therms per year (therms/y). The savings attributable to new nonresidential buildings are 151.2 GWh/y of electricity savings and 3.3 million therms. For nonresidential buildings, the standards establish minimum energy efficiency requirements related to building envelope, mechanical systems (e.g., heating, ventilation, and air conditioning [HVAC]; and water heating systems), indoor and outdoor lighting, and illuminated signs.

Local

County of Yolo General Plan

The General Plan establishes the following goals and policies associated with public services that are applicable to the proposed project:

[2] The City of Patterson is a member agency of the Stanislaus County Regional Solid Waste Planning Agency.

- **Goal PF-1:** Wastewater Management. Provide efficient and sustainable solutions for wastewater collection, treatment, and disposal.
- **Policy PF-1.1:** Require discretionary projects to demonstrate adequate long-term wastewater collection, treatment, and disposal capacity, including full funding for land acquisition, facility design and construction, and long-term operations and maintenance for needed wastewater treatment and disposal facilities. Where such funding is dependent upon a community vote, approval of the project by the County shall be contingent upon a successful voting outcome.
- **Policy PF-1.2:** Promote innovative and efficient options for sewage and septic treatment that are appropriate for the type of development to be served, existing facilities available, and administrative alternatives.
- **Goal PF-2:** Stormwater Management. Provide efficient and sustainable stormwater management to reduce local flooding in existing and planned land uses.
- **Policy PF-2.1:** Improve stormwater runoff quality and reduce impacts to groundwater and surface water resources.
- **Policy PF-2.3:** Design new stormwater facilities to enhance recreational, habitat, and/or aesthetic benefits, as well as to integrate with existing parks and open space features.
- **Policy PF-2.4:** Encourage sustainable practices for stormwater management that provide for groundwater recharge and/or improve the quality of runoff through biological filtering and environmental restoration.
- **Policy PF-2.5:** Incorporate new ways to pave streets, parking lots, sidewalks, and trails with pervious surfaces that allow for water to penetrate the surface.
- **Goal PF-9:** Solid Waste and Recycling. Provide safe, cost-efficient, and environmentally responsible solid waste management.
- **Policy PF-9.1:** Meet or exceed State waste diversion requirements.
- **Policy PF-9.8:** Require salvage, reuse or recycling of construction and demolition materials and debris at all construction sites.
- **Policy PF-9.9:** Encourage use of salvaged and recycled materials in construction.
- **Goal PF-10:** Sources of Energy. Provide opportunities for the development of energy alternatives.
- **Policy PF-10.1:** Pursuant to AB 117 (Statutes of 2002) explore "community choice aggregation" as a means of facilitating the purchase of electrical energy at the local level for community needs.
- **Policy PF-10.2:** Streamline the permitting process for the production of energy alternatives (including but not limited to photovoltaic, solar, wind, biofuels, and biomass), to reduce dependency on fossil fuels.
- **Policy PF-10.3:** Provide financial and regulatory incentives for the installation of alternative energy and alternative energy conservation measures in all development approvals.
- **Policy PF-10.4:** Provide financial and regulatory incentives for the installation of alternate energy and other alternate energy conservation measures for agriculture.

- **Goal PF-11:** Utilities and Communications. Support a flexible network of utility services to sustain state-of-the-art community livability and economic growth.
- **Policy PF-11.1:** Encourage the development of power generating and transmission facilities in appropriate alignments and locations, sufficient to serve existing and planned land uses.
- **Policy PF-11.5:** Increase the availability and reliability of power to the rural areas, including underserved communities.
- **Goal PF-12:** General Government Services. Provide quality, cost-effective public facilities and services to Yolo County properties and residents.
- **Policy PF-12.1:** Design, construct, and operate County facilities to be environmentally sustainable, and beneficial to the community and/or region.
- **Policy PF-12.2:** Use life cycle analysis (taking into consideration all costs involved in production, transport, and disposal of a product) in decision making for materials and construction techniques.
- **Policy PF-12.3:** Design, construct, and operate facilities that employ renewable energy resources, or reduce the use of fossil fuel for their operations and transport needs.
- **Policy PF-12.4:** Encourage the development of governmental and civic facilities (e.g. school yards, special district meeting rooms, etc.) that can accommodate multiple community uses.
- **Policy PF-12.6:** Provide the public facilities and services necessary to meet community needs, in an efficient manner.
- **Policy PF-12.9:** Provide all service providers with appropriate opportunity to comment on pending development applications.
- **Policy PF-12.10:** Ensure that all basic community services (e.g. septic/sewage, water, drainage, roads, power, parks, schools, libraries, etc.) for new planned development, including all Specific Plan areas, are made available consistent with the target service levels established in this General Plan, prior to or concurrent with need, to the extent feasible.

City of Woodland General Plan

The General Plan establishes the following goals and policies associated with public that are applicable to the proposed project:

- **Goal 4.C:** To maintain a safe, reliable, and sufficient water supply that will meet the future needs of the city.
- **Policy 4.C.3:** The City shall promote efficient water use by:
  - Requiring water efficient building design and pumping devices in new construction that comply with State and Federal laws;
  - Encouraging the use of water efficient landscaping; and
  - Encouraging the retrofitting of existing development with water efficient plumbing devices.

- **Policy 4.C.4:** The City shall investigate the use of reclaimed wastewater to offset the demand for new water supplies.
- **Goal 4.D:** To ensure adequate wastewater collection and treatment and the safe disposal of wastes.
- **Policy 4.D.1:** The City shall promote reduced wastewater system demand through efficient water use by:
  - Requiring water-conserving design and equipment in new construction;
  - Encouraging retrofitting with water-conserving devices; and
  - Designing, constructing, and repairing wastewater systems to minimize inflow and infiltration to the extent economically feasible.
- **Goal 4.E:** To collect and dispose of stormwater in a manner that minimizes inconvenience to the public, minimizes potential water-related damage, and enhances the environment and complies with state and federal laws.
- **Policy 4.E.1:** The City shall require development to provide for the overland flow of stormwaters exceeding the City's standard design capacity of the storm drainage system. These overland flow waters shall be conveyed over public streets where possible and shall be at least one foot below building pad elevations and contains provisions for removal of silt and other contaminants.
- **Policy 4.E.2:** The City shall encourage project designs that minimize drainage concentrations and impervious coverage.
- **Policy 4.E.3:** The City shall prohibit grading activities during the rainy season, unless adequately mitigated, to avoid sedimentation of storm drainage facilities.
- **Goal 4.G:** To ensure the safe and efficient disposal or recycling of solid waste generated in Woodland.
- **Policy 4.G.1:** The City shall require waste collection in all new development.
- **Policy 4.G.3:** The City shall require that all new development complies with applicable provisions of the City of Woodland *Source Reduction and Recycling Element* and the *Yolo County Integrated Waste Management Plan.*
- **Goal 4.J:** To promote adequate levels of utility services provided by private companies and ensure that these are constructed to minimize negative effects on surrounding development.
- **Policy 4.J.1:** The City shall communicate its major development plans with utility companies and coordinate planning of extension of these facilities.
- **Policy 4.J.2:** The City shall require undergrounding of utility lines in new development and as areas are redeveloped, except where infeasible for operational reasons.
- **Policy 4.J.4:** The City shall promote technological improvements and upgrading of utility services in Woodland.

3.14.4 - Thresholds of Significance

To determine whether impacts to utilities and services are significant environmental effects, the following questions are analyzed and evaluated. Would the project:

a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? (Refer to Section 7, Effects Found Not To Be Significant.)

d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs? (Refer to Section 7, Effects Found Not To Be Significant.)

g) Comply with federal, state, and local statutes and regulations related to solid waste? (Refer to Section 7, Effects Found Not To Be Significant.)

Wastewater Treatment

Impact USS-1:	**The proposed project would not exceed the wastewater treatment requirements of the applicable Regional Water Quality Control Board.**

Impact Analysis

Grasslands and Beamer/Cottonwood Sites

During the construction phase of the proposed project, construction workers would use temporary, portable restroom facilities. The portable restroom facilities would require periodic service but would not be connected to a municipal sewer system. The effluent produced from these portable restroom facilities would be removed by a licensed pumping service and processed at a permitted wastewater treatment facility.

A maximum of 16 acre-feet of water would be required during construction for dust control and moisture conditioning onsite soils for required compaction, and roughly 0.049 acre-foot per year of water would be used for panel washing. Largely depending on temperature conditions, the excess water from these activities would be allowed to either evaporate or percolate into the permeable surfaces found on both project sites. These activities would not require wastewater disposal.

The park host site would include the construction of a small septic system to accept wastewater from the park host's personal travel trailer. The septic system 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. No connection to a regional wastewater treatment provider would be required.

In summary, impacts associated with the exceedance of wastewater treatment requirements would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

Grasslands Site

No mitigation is necessary.

Beamer/Cottonwood Site

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Water and Wastewater Treatment

Impact USS-2:	**The project would result in the construction of new water and wastewater treatment facilities, the construction of which would not cause significant environmental effects.**

Impact Analysis

Grasslands and Beamer/Cottonwood Sites

Implementation of the proposed project would require limited amounts of water supply during construction and operation. During project construction, the primary use of water would be for dust control. Water may also be required to moisture-condition the soils for proper compaction at roads and foundations. Water for construction purposes would be trucked onsite and would not require the construction of new water or wastewater treatment facilities.

During operation, water usage would be limited to landscaping establishment, panel washing and, at the Grasslands site, potable water used by the park host. Water for panel washing would be provided by a contracted service provider to the County. Since the water used would either soak into the soil or evaporate, no wastewater would be generated during panel washing. Water used for the establishment of landscaping would be provided by either a contracted water supplier or a temporary irrigation system. Water supplied to the park host at the Grasslands site would be provided via a permanent connection to an existing well located within the developed portion of Grasslands Regional Park. In addition, a small septic system would be constructed at the Grasslands site to serve

the park host site. Construction of the temporary irrigation systems, permanent potable water provision to the park host, or the septic system would be required to abide by applicable laws and regulations, as well as applicable mitigation measures included in this EIR. As such, their construction would not result in significant environmental effects.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

Grasslands Site

No mitigation is necessary.

Beamer/Cottonwood Site

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Water Supply

Impact USS-3:	**Sufficient water supplies will be available to serve the project from existing entitlements and resources, and new or expanded entitlements would not be needed.**

Impact Analysis

Grasslands and Beamer/Cottonwood Sites

Short-Term Construction Impacts

During the construction phases on both the Grasslands and Beamer/Cottonwood sites, approximately 16 acre-feet of water would be required, primarily for dust control and moisture conditioning of onsite soils for required compaction. Water would be used only as needed during construction. The water necessary for these activities would be provided via a contracted water service. As provided in Table 3.14-1 the Yolo County region is projected to have a surplus water supply for both future average year and future drought year conditions. The 16 acre-feet of water required during construction would represent a modest percentage of the region's projected future surpluses, and could be delivered with existing entitlement and resources. Therefore, short-term impacts associated with water supplies would be less than significant.

Long-Term Operations Impacts

During the operations and maintenance of the proposed project, water would be required for panel washing and establishment of landscaping at both sites, and for park host site operations at the Grasslands site.

Water for panel washing would be supplied by a contracted water service. In order to ensure optimum solar absorption and performance, the solar PV panels would be washed two times per year.

Approximately 6,848 gallons of water (0.50 gallon per panel x 13,696 panels = 6,848 gallons) per washing cycle would be needed at the Grasslands site. Approximately 1,184 gallons of water (0.50 gallon per panel x 2,638 panels = 1,184 gallons) per washing cycle would be needed at the Beamer/Cottonwood site. An annual total of 16,064 gallons, or 0.049 acre-foot, would be required for panel washing at both project sites. In addition, limited amounts of water would be used for establishment of screening vegetation. Water for vegetation establishment would be supplied by a contracted water service. Again, as provided in Table 3.14-1, the Yolo County region is projected to have a surplus water supply for both future average year and future drought year conditions. The 0.049 acre-foot of water required annually during operations would represent a nominal percentage of the region's projected future surpluses, and could be delivered with existing entitlement and resources.

Limited amounts of water will be used for landscaping until plants establish a healthy root structure and are self-sufficient. At the Grasslands site, water would be provided by either a contracted water supplier or a temporary irrigation system connected to the existing well within the developed portion of Grasslands Regional Park. At the Beamer/Cottonwood site, irrigation water would be provided by either a contracted water supplier or a temporary irrigation system connected to the County's adjacent existing irrigation system.

Potable (drinking) water would be provided to the park host at the Grasslands site via a permanent connection to the existing well. This water connection would also be utilized for the EEC should a drinking fountain be installed. The existing onsite well is currently utilized by the existing park host and has been used in the past for irrigation. The well produces 425 gallons per minute (25,500 gallons per hour) and is approximately 300 feet deep. The current park host uses approximately 5 gallons per hour during peak operation, and it is assumed that the proposed park host would use about the same. Should irrigation water be used from the existing well, it is estimated that approximately 12 gallons per minute (720 gallons per hour) would be required. Because of the existing minimal use of the well and its available yield, sufficient water would be available.

In summary, because of the minimal amounts of water required for operation and the availability of water at each project site, long-term impacts associated with water supplies would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

Grasslands Site

No mitigation is necessary.

Beamer/Cottonwood Site

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Wastewater Treatment Capacity

Impact USS-4:	**The proposed project would not result in a determination that the wastewater treatment provider has an inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments.**

Impact Analysis

Grasslands and Beamer/Cottonwood Sites

During the construction phase of the proposed project, construction workers would use temporary, portable restroom facilities that would not be connected to a municipal sewer system. The effluent produced from these portable restroom facilities would be removed by a licensed pumping service and processed at a permitted wastewater treatment facility.

A maximum of 16 acre-feet of water would be required during construction for dust control and moisture conditioning onsite soils for required compaction, and roughly 0.049 acre-foot per year of water would be used for panel washing. Largely depending on temperature conditions, the excess water from these activities would be allowed to either evaporate into the air or percolate into the permeable surfaces found on both project sites. In addition, limited amounts of water would be used for establishment of screening vegetation. These activities would not require wastewater disposal.

The park host site would include the construction of a small septic system to accept wastewater from the park host's personal travel trailer. The septic system 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. No connection to a wastewater treatment provider would be required.

As a result, impacts associated with wastewater treatment capacity would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

Grasslands Site

No mitigation is necessary.

Beamer/Cottonwood Site

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.