# SECTION 4.13
# PUBLIC SERVICES AND UTILITIES

This section discusses public services and utilities that would serve the proposed Project. These include fire protection, law enforcement, water service, wastewater service, solid waste, electricity, and telephone/internet. Each service is described with regard to existing resources available and potential impacts the proposed Project would have on each service or utility providers' ability to adequately respond to and serve the Project. The focus of the analysis is primarily centered on the solar farm complex component of the Project and as it would be the greatest generator of demand for public services and utilities.

## 4.13.1 FIRE PROTECTION

### 4.13.1.1 REGULATORY FRAMEWORK

#### A. STATE

**Fire Codes and Guidelines**

The 2007 California Fire Code (CFC) (Title 24, Part 9 of the California Code of Regulations) establishes regulations to safeguard against hazards of fire, explosion, or dangerous conditions in new and existing buildings, structures, and premises. The CFC also establishes requirements intended to provide safety and assistance to firefighters and emergency responders during emergency operations. The provisions of the Fire Code apply to the construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, maintenance, removal, and demolition of every building or structure throughout the State of California (CBSC 2007). The Fire Code includes regulations regarding fire-resistance-rated construction, fire protection systems such as alarm and sprinkler systems, fire services features such as fire apparatus access roads, means of egress, fire safety during construction and demolition, and wildland-urban interface areas (PMC 2011).

The County has adopted the CFC with amendments specific to Imperial County.

#### B. LOCAL

**Imperial County General Plan**

The Seismic and Public Safety Element of the Imperial County General Plan includes goals, objectives, policies and programs for land use planning, public safety, emergency preparedness and the control of hazardous materials. In addition, the Circulation and Scenic Highways Element includes a goal and objective regarding emergency access. **Table 4.13-1** provides a consistency analysis of the applicable Imperial County General Plan goals and objectives as they relate to the proposed Project. While this EIR analyzes the Project's consistency with the General Plan pursuant to State CEQA Guidelines Section 15125(d), the Imperial County Board of Supervisors ultimately determines consistency with the General Plan.

**TABLE 4.13-1**
**IMPERIAL COUNTY GENERAL PLAN CONSISTENCY ANALYSIS – FIRE PROTECTION**

| General Plan Goals and Objectives | Consistent with General Plan? | Analysis |
|---|---|---|
| **SEISMIC/PUBLIC SAFETY ELEMENT** | | |
| **Land Use Planning and Public Safety** | | |
| **Goal 1** Include public health and safety considerations in land use planning. | Yes | The proposed Project is a solar farm complex located in an area designated for agricultural use and zoned A-2 |

**TABLE 4.13-1**
**IMPERIAL COUNTY GENERAL PLAN CONSISTENCY ANALYSIS – FIRE PROTECTION**

| General Plan Goals and Objectives | Consistent with General Plan? | Analysis |
|---|---|---|
| | | (Agricultural General). Solar Energy Electrical Generator uses are allowed in the A-2 zone with a conditional use permit (CUP). The Applicant has applied for five CUPs to allow construction and operation of each of the five solar energy projects and nine CUPs for the water wells within the solar farm complex site. The Project would comply with all applicable health and safety considerations including provision of emergency access and fire water. Therefore, the proposed Project is consistent with this goal. |
| **Objective 1.8** Reduce fire hazards by the design of new developments. | Yes | The proposed Project would be designed to incorporate fire safety features including portable fire extinguishers on buildings and inverters, electric pumps for pressurized fire water and use of nonflammable material where applicable. The "Applicant Proposed Measures Included as Part of Proposed Seville Solar Farm Complex" identified in Table 2.0-6, in Chapter 2.0, Project Description would also serve to reduce fire hazards. In addition, the ICFD will review all plans prior to Project approval for compliance with applicable CFC and local standards. Therefore, the proposed Project is consistent with this objective. |
| **Emergency Preparedness** | | |
| **Goal 2** Minimize potential hazards to public health, safety, and welfare and prevent the loss of life and damage to health and property resulting from both natural and human-related phenomena. | Yes | The Project is located in an area of the County that is not prone to wildfire. In addition, the ICFD has been contacted for input on the proposed Project to address any potential fire or emergency access hazards. The Project would be required to comply with all state and local fire codes and ordinances. |

**TABLE 4.13-1**
**IMPERIAL COUNTY GENERAL PLAN CONSISTENCY ANALYSIS – FIRE PROTECTION**

| General Plan Goals and Objectives | Consistent with General Plan? | Analysis |
|---|---|---|
| | | Therefore, the Project is consistent with this goal. |
| **Objective 2.8** Prevent and reduce death, injuries, property damage, and economic and social dislocation resulting from natural hazards including flooding, land subsidence, earthquakes, other geologic phenomena, levee or dam failure, urban and wildland fires and building collapse by appropriate planning and emergency measures. | Yes | The proposed Project site is not in an area subject to risk of forest fires nor is it within a fire hazard zone. The Project area consists of a solar farm complex site on lands formerly used for agricultural activities surrounded by open desert; an overbuilt transmission line extending through open desert; and modifications to the Anza Substation also within open desert. The tamarisk trees that currently serve as a windbreak on the internal portion of the solar farm complex site will be selectively removed. Some trees will remain for visual screening purposes. Therefore, the proposed Project is consistent with this objective. |
| **Objective 2.5** Minimize injury, loss of life, and damage to property by implementing all state codes where applicable. | Yes | The proposed Project would be required to comply with all applicable state and local codes regarding the operation of a solar farm complex; the IID would oversee operation of the 92 kV transmission line and Anza Substation modifications in accordance with all applicable standards and regulations. Therefore, the proposed Project would be consistent with this objective. |
| **CIRCULATION AND SCENIC HIGHWAY ELEMENT** | | |
| **Safe, Convenient, and Efficient Transportation System** | | |
| **Goal 1** The County will provide and require an integrated transportation system for the safe and efficient movement of people and goods within and through the County of Imperial with minimum disruption to the environment. | Yes | The proposed Project would be regionally accessed from SR 78. The principal access to the solar energy projects would be via a new private access road off of SR 78 constructed approximately one-quarter mile west of the existing access road. The Project would not disrupt the existing transportation system in the area. |

**TABLE 4.13-1**
**IMPERIAL COUNTY GENERAL PLAN CONSISTENCY ANALYSIS – FIRE PROTECTION**

| General Plan Goals and Objectives | Consistent with General Plan? | Analysis |
|---|---|---|
| | | Therefore, the proposed Project is consistent with this Goal. Refer to Section 4.3, Transportation and Circulation, for a full discussion of transportation. |
| **Objective 1.17** Assure that road systems are adequate to accommodate emergency situations and evacuation plans. | Yes | All access and internal roadways will be required to comply with 2010 CFC design specifications per Chapter 5, Appendix B. All facilities and buildings will be required to be accessible to fire apparatus by way of an approved fire apparatus access road. Gates for fire access will be designed per ICFD standards. A road network would provide main entry and access to all project lots. The existing gated, private road from SR 78 would be used for secondary emergency access. Therefore, the proposed Project is consistent with this objective. |

### 4.13.1.2 EXISTING SETTING

Imperial County is comprised of approximately 4,597 square miles. The Imperial County Fire Department (ICFD) serves a large rural area including all unincorporated areas of Imperial County, Seeley, Heber, Palo Verde, Ocotillo, Niland, and the City of Imperial. ICFD serves these areas with stations staffed with County personnel or contract staff (Malek 2013). In addition, the ICFD also provides emergency services such as Advanced Life Support (ALS) and Basic Life Support (BLS) (Rouhotas 2013).

The closest full-0time Imperial County Fire Station to the Project is located approximately 40 miles away in the City of Imperial. This station is equipped with Type I engines with support vehicles including a water tender and a rescue squad (Malek 2013). However, the proposed Project would be served by a contract agency, the Salton Community Services District (SCSD). The SCSD is located approximately 20 minutes, or 19 miles, from the Project in the township of Salton City. The fire services department of the SCSD is staffed with paid reserves and volunteers. SCSD fire equipment includes a Type I engine and a Type 5/Squad truck owned and maintained by the County (Rouhotas 2013).

The ICFD does not have required response times established for remote areas of the County, such as the proposed Project location (Rouhotas 2013).

The ICFD assesses fire impact fees for solar projects to mitigate costs in the event that fire services are needed (Rouhotas 2013). Such costs could be associated with Capital Improvement Purchases; staffing during construction; and for equipment maintenance and staff training over the life of a project (Rouhotas 2013).

### 4.13.1.3 IMPACTS AND MITIGATION MEASURES

#### A. STANDARDS OF SIGNIFICANCE

The impact analysis provided below is based on the CEQA Guidelines Appendix G thresholds of significance. The Project would have a significant impact to fire protection services if it would:

a) Result in substantial adverse physical impacts associated with the provision of new or physically altered fire facilities, need for new or physically altered fire facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire protection.

#### B. METHODOLOGY

The evaluation of potential impacts to fire protection services associated with construction, operation and reclamation of the proposed Project was based on review of the Project area, surrounding land uses, and consultation with ICFD staff, Tony Rouhotas, Fire Chief and Robert Malek, Fire Captain. Impacts associated with provision of water pressure to support fire flow are addressed under the discussion of Water in subsection 4.13.3, below.

#### C. PROJECT IMPACTS AND MITIGATION MEASURES

**Impacts to ICFD Services**

**Impact 4.13.1** The proposed Project would develop a solar farm complex on idle farmland in a remote area of Imperial County. The location of the facility and its size could result in increased demand on ICFD services. However, the proposed Project has been designed to incorporate fire and emergency safety features. Therefore, impacts to ICFD service are considered **less than significant**.

***Construction***

The proposed Project would involve up to five solar energy projects on 1,238 acres of idle farmland reverting to open desert. The solar farm complex site contains dirt roads and mature tamarisk trees as well as two farm houses, an above-ground diesel fuel storage tank within a concrete block secondary containment structure, a covered material storage, a truck weigh scale and shed, and buried water pipes. These features as well as some internal tamarisk trees would be removed as part of demolition prior to Project construction.

Prior to starting construction, vegetation would be cleared from access roads and the solar farm complex site. This step would reduce the potential of a fire during construction.

The proposed Project has been designed to incorporate fire prevention and emergency preparedness features to minimize risk and the need for ICFD services. These features would be built as part of construction and include: a 10,000 gallon fire water storage tank within each of the five solar energy project lots; placement of portable fire extinguishers throughout the buildings and on inverters (Regenerate 2013). Solar equipment would be comprised of either photovoltaic (PV) modules that are typically Class C fire-rated or concentrating photovoltaic (CPV) systems that typically comply with Class A, B or C fire-ratings (Bucher 2013). The remainder of the equipment (i.e. O&M buildings, inverters, transformers etc.) is constructed of non-flammable material (aluminum, steel, and glass).

Access for emergency services include at minimum: 30-foot wide double swing gates at the primary access road; roads leading to each of the five solar energy project lots; and 20-foot wide roads along the inside of the security fence and between solar arrays for each project. BLM safety standards will be

followed during the construction of the overbuilt 92 kV transmission line on BLM land, (Regenerate 2013).

The final site plan for the Project, as well as all on-site fire-fighting facilities (i.e. water tanks for storage and fire water pressure) will be reviewed by the ICFD to ensure compliance with all applicable codes and standards. Therefore, impacts associated with increased demand for ICFD services are considered **less than significant** during Project construction.

***Operation***

The proposed Project has been designed to incorporate fire prevention and emergency preparedness features to minimize risk and the need for ICFD services. Fire safety precautions in place during operation include 10,000 gallons of fire-fighting water stored in an on-site tank on each of the five solar energy project lots and placement of portable fire extinguishers throughout the buildings and on inverters (Regenerate 2013). As described under the discussion of construction, solar equipment would not be constructed of flammable material. Vegetation growing within the Project area would be periodically removed manually and/or treated with herbicides. Therefore, impacts associated with increased demand for ICFD services are considered **less than significant** during Project operation.

***Reclamation***

At the end of the Project's useful life, approximately 20 to 25 years in the future, the solar farm complex's equipment and on-site facilities will be removed and the site would be cleared, contoured and reclaimed to its end state to approximate the existing idle farmland. On-site materials and equipment are non-flammable and existing fire water tanks would be on-site until demolished. Vegetation will have been maintained during operation of the Project. Therefore, impacts to ICFD services are anticipated to be **less than significant** during Project reclamation.

**Mitigation Measures**

None required.

**Significance After Mitigation**

Not required.

## 4.13.1.4 CUMULATIVE SETTING, IMPACTS AND MITIGATION MEASURES

### A. CUMULATIVE SETTING

The cumulative setting for fire protection service is the service area of the ICFD. For emergency fire response, the proposed Project would be served by the SCSD.

A cumulative list of large scale proposed, approved and reasonably foreseeable renewable energy projects within Imperial County, as well as one nearby project in San Diego County, is shown in Table 3.0-1 in Chapter 3.0, Introduction to the Environmental Analysis and Assumptions Used. None of the cumulative projects identified within Imperial County are in the immediate vicinity of the proposed Project. (Note: one proposed project in Table 3.0-1 is in proximity to the Project, but is located in San Diego County. As such, it would not be served by the ICFD).

### B. CUMULATIVE IMPACTS AND MITIGATION MEASURES

**Cumulative Impacts to ICFD Services**

**Impact 4.13.2** Development of the proposed Project, in combination with large scale proposed, approved and reasonably foreseeable renewable energy projects in the ICFD service area, would increase demand for fire protection. However, each individual project

would be required to incorporate fire safety features and worker safety protocols in compliance with all applicable fire and occupational safety standards and codes. Therefore, cumulative impacts to ICFD services are considered **less than cumulatively considerable**.

***Construction, Operation and Reclamation***

The proposed Project, in combination with other large scale proposed, approved and reasonably foreseeable renewable energy projects in the ICFD service area identified in Table 3.0-1 Chapter 3.0, Introduction to the Environmental Analysis and Assumptions Used, would increase demand on existing fire facilities, equipment, and staffing during Project construction, operation and reclamation. However, there are no current or proposed large developments in the vicinity of the Project that would require ICFD service from the SCSD (Rouhotas 2013). Further, none of the other large scale proposed, approved and reasonably foreseeable renewable energy projects identified as part of cumulative conditions would increase residential or commercial development which would increase both the number of structures and population requiring ICFD fire protection.

All new development in Imperial County is subject to fire safety standards, including state and local regulations. Furthermore, impacts to fire protection are mitigated on a project-by-project basis through review of individual projects by the ICFD to ensure that all fire safety requirements are satisfied. Thus, the Project's contribution to cumulative impacts to fire protection would be **less than cumulatively considerable** during Project construction, operation and reclamation. Likewise, because individual projects are required to meet all applicable federal, state and local requirements, as applicable, cumulative impacts to ICFD services would be considered **less than cumulatively considerable** during Project construction, operation and reclamation.

**Mitigation Measures**

None required.

**Significance After Mitigation**

Not required.

## 4.13.2 LAW ENFORCEMENT

### 4.13.2.1 REGULATORY FRAMEWORK

#### A. LOCAL

**Imperial County General Plan**

The Imperial County General Plan provides goals, objectives, policies and programs regarding public safety and provision of emergency access. The Circulation and Scenic Highway Element of the General Plan includes a goal and objective regarding emergency access applicable to the proposed Project. **Table 4.13-2** provides a consistency analysis of the applicable Imperial County General Plan goal and objective as they relate to the proposed Project. While this EIR analyzes the Project's consistency with the General Plan pursuant to State CEQA Guidelines Section 15125(d), the Imperial County Board of Supervisors ultimately determines consistency with the General Plan.

**TABLE 4.13-2**
**IMPERIAL COUNTY GENERAL PLAN CONSISTENCY ANALYSIS – LAW ENFORCEMENT**

| General Plan Goals and Objectives | Consistent with General Plan? | Analysis |
|---|---|---|
| **CIRCULATION AND SCENIC HIGHWAY ELEMENT** | | |
| **Safe, Convenient, and Efficient Transportation System** | | |
| **Goal 1** The County will provide and require an integrated transportation system for the safe and efficient movement of people and goods within and through the County of Imperial with minimum disruption to the environment. | Yes | The proposed solar farm complex site would be regionally accessed from SR 78. The principal access to the five solar energy projects would be via a new private access road off of SR 78 constructed approximately one-quarter mile west of the existing access road. The Project would not disrupt the existing transportation system in the area. Therefore, the proposed Project is consistent with this Goal. Refer to Section 4.3, Transportation and Circulation, for a full discussion of transportation. |
| **Objective 1.17** Assure that road systems are adequate to accommodate emergency situations and evacuation plans. | Yes | All access and internal roadways will be required to comply with 2010 CFC design specifications per Chapter 5, Appendix B. All facilities and buildings will be required to be accessible to fire apparatus by way of an approved fire apparatus access road. Gates for fire access will be designed per ICFD standards. A road network would provide main entry and access to all project lots. The existing gated, private road from SR 78 would be used for secondary emergency access. Therefore, the proposed Project is consistent with this objective. |

## 4.13.2.2 EXISTING SETTING

The Imperial County Sheriff's Office (ICSO) covers a 4,597 square mile service area in Imperial County. It provides general law enforcement, detention and court services. Sheriff substations are located in the communities of Brawley, Palo Verde, Niland, Salton City and Winterhaven (Moreno 2013a).

The Salton City substation (located approximately 21 miles from the Project at 2101 South Marina Drive, Suite 1, in Thermal) would be responsible for law enforcement services to the Project (Moreno 2013a). The Salton City substation is currently staffed by one Sergeant, six patrol deputies and one investigator. This substation also averages two deputies per shift (Moreno 2013a).

Over the past two years, the Salton City substation has answered approximately 40% of calls for service in Brawley, Niland, Bombay Beach, Glamis Dunes and Palo Verde. When needed, the Salton City substation uses resources from the Brawley station to keep up with demand.

Current ICSO industry standards are set for serving the Salton City substation populated areas of Salton City, Salton Sea Beach and Desert Shores. Industry standards are calculated by considering a combination of factors including: population, business type and location and service calls (Moreno 2013b).

### 4.13.2.3 IMPACTS AND MITIGATION MEASURES

#### A. STANDARDS OF SIGNIFICANCE

The impact analysis provided below is based on the CEQA Guidelines Appendix G thresholds of significance. The project would have a significant impact on law enforcement services if it would:

a) Result in substantial adverse physical impacts associated with the provision of new or physically altered law enforcement facilities, or the need for new or physically altered law enforcement, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for law enforcement.

#### B. METHODOLOGY

The evaluation of potential impacts to law enforcement associated with construction, operation and reclamation of the proposed Project was based on review of the Project area, surrounding lands and consultation with Chief Deputy George Moreno of the ICSO.

#### C. PROJECT IMPACTS AND MITIGATION MEASURES

**Impacts to ICSO Services**

**Impact 4.13.3** Implementation of the proposed Project would adversely affect the ICSO's current service level. Therefore, impacts to ICSO services are considered a **potentially significant impact**.

***Construction***

The Project is located in an area not usually patrolled by the Salton City substation. Instead, the Salton City substation typically responds only to emergency calls in this area. Because of the remote location of the Project, response times may be extended and subsequently diminish the ability of the Salton City substation staff to answer other service call demands in the precinct of Salton City (Moreno 2013a).

The Project design incorporates a variety of security features during construction to decrease the likelihood of threats such as vandalism. Six-foot high security fencing would be installed around the perimeter of each development lot at the commencement of construction. Access to each solar energy project site would be limited to authorized site workers and construction personnel.

Despite the incorporation of security features in the Project's design, the ICSO has indicated that current service levels would be affected in association with development of the proposed solar farm complex (Moreno 2013b). In order to maintain industry standards, the ICSO has stated that up to three additional deputies and two to three additional fully marked and equipped patrol vehicles would be needed to keep a close and constant patrol on the Project (Moreno 2013a). Therefore, impacts to ICSO services are considered **potentially significant** during Project construction.

### *Operation*

As previously noted under the discussion of construction above, the Project design incorporates a variety of security features to decrease the likelihood of threats such as vandalism during operation. The six-foot high security fence installed around the perimeter of each development lot at the commencement of construction would remain in place throughout Project operation. Access to each solar energy project site would be limited to authorized operations personnel. In addition, a motion detection system and closed circuit camera system may also be installed for security purposes during operations whereby the solar energy project sites could be monitored 24 hours per day, 7 days per week.

As described under the discussion of construction, above, despite the incorporation of security features in the Project's design, the ICSO has indicated that current service levels would be affected and that additional deputies and patrol vehicles would be necessary to serve the Project. Therefore, impacts to ICSO services are considered **potentially significant** during Project operation.

### *Reclamation*

At the end of the Project's useful life, approximately 20 to 25 years in the future, the solar farm complex's equipment and on-site facilities will be removed and the site would be cleared, contoured and reclaimed to its end state to approximate the existing idle farmland. No additional impacts to ICSO services would be anticipated during reclamation activities because the Project's requirement for increased law enforcement services would have already occurred and been mitigated. Therefore, impacts to ICSO services are considered **less than significant** during Project reclamation.

**Mitigation Measure**

**MM 4.13.3** The Applicant shall mitigate for impacts to law enforcement services resulting from the proposed Project as determined in consultation with the Imperial County Sheriff's Office or established in a Development Agreement or Public Benefits Agreement with Imperial County.

| | |
|---|---|
| *Timing/Implementation:* | *Prior to the issuance of building permits, or as specified in the Development Agreement or Public Benefits Agreement.* |
| *Enforcement/Monitoring:* | *Imperial County Sheriff's Office/Imperial County Planning and Development Services Department.* |

**Significance After Mitigation**

Mitigation measure MM 4.13.3 would address potential impacts to law enforcement services, such as through the funding of additional staff and/or vehicles needed to maintain industry standards, as determined in consultation with the ICSO or established in the Development Agreement or Public Benefit Agreement. Following implementation of mitigation measure MM 4.13.3, impacts to increased demand for law enforcement services would be reduced to **less than significant**.

## 4.13.2.4 CUMULATIVE SETTING, IMPACTS AND MITIGATION MEASURES

### A. CUMULATIVE SETTING

The cumulative setting for law enforcement is the service area of the ICSO which includes all of unincorporated Imperial County. Under cumulative conditions, the ICSO would continue to provide law enforcement services to Imperial County, as well as the other large scale proposed, approved and reasonably foreseeable renewable energy projects identified in Table 3.0-1, in Chapter 3.0, Introduction

to the Environmental Analysis and Assumptions Used (Note: one project in Table 3.0-1 in proximity to the Project is within San Diego County and would not be served by the ICSO). This development would increase the number and acreage of renewable energy projects requiring law enforcement.

## B. CUMULATIVE IMPACTS AND MITIGATION MEASURES

**Cumulative Impacts to ICSO Services**

**Impact 4.13.4** Development of the proposed Project, in combination other large scale proposed, approved and reasonably foreseeable renewable energy projects in Imperial County would result in an increased cumulative demand for law enforcement and strain current industry-standard service levels Therefore, the proposed Project in combination with other cumulative projects would result in a **cumulatively considerable impact** ICSO services.

***Construction, Operation and Reclamation***

Increased development in the County, including cumulative projects identified in Table 3.0-1 within Imperial County, would increase demand for law enforcement services under cumulative conditions. The ICSO has indicated that law enforcement will experience a cumulatively considerable impact due to the remote location of the Project (Moreno 2013a). Specifically, providing substantial service calls to the area would strain current industry-standard set service levels, including response times, of the Salton City substation. Because of the remote location of the Project, response time to the Project (during construction, operation and reclamation) would be lengthy, thereby affecting the ability of Salton City substation staff to answer service call demands in the precinct of Salton City (Moreno 2013b).

Consequently, the implementation of the proposed Project could extend to other substations such as Brawley, causing a higher service demand and a compromise in service standards. The Salton City substation is already pulling resources from the Brawley substation to keep up with current demand. As a result, the proposed Project, in combination with other large scale proposed, approved and reasonably foreseeable renewable energy projects in Imperial County, would result in a **cumulatively considerable contribution** to cumulative impacts to ICSO services. In addition, under cumulative conditions, development of the Project would increase the ICSO Salton City substation's number of service calls and response times in the region and potentially the ICSO service area throughout. Providing increased law enforcement to address cumulative demand would require acquisition of service vehicles and increased staffing levels. Therefore, the proposed Project would result in a **cumulative considerable impact** to ICSO services during construction, operation and reclamation.

**Mitigation Measures**

Implement mitigation measure MM 4.3.3.

**Significance After Mitigation**

Mitigation measure MM 4.13.3 would address potential impacts to ICSO services through the addition of staff and vehicles as determined in consultation with the ICSO. Following implementation of mitigation measure MM 4.13.3, impacts to the ICSO would be reduced to **less than cumulatively considerable**.

## 4.13.3 WATER SERVICE

### 4.13.3.1 REGULATORY FRAMEWORK

#### A. STATE

**Urban Water Management Planning Act - Assembly Bill (AB) 797**

The Urban Water Management Planning Act was established by Assembly Bill 797 (AB 797) on September 21, 1983. This law evidences recognition by state legislators of water as a limited resource. AB 797 is also a declaration that efficient water use and conservation should be actively pursued throughout the state. AB 797 requires water suppliers providing water for municipal purposes either directly or indirectly to more than 3,000 customers, or supplying more than 3,000 acre-feet per year (AFY) of water, to prepare and adopt a specific plan every five years. The purpose of the plan is to define the supplier's current and future water use, sources of supply and supply reliability, and existing conservation measures.

**Senate Bill (SB) 610 and SB 221**

Effective January 1, 2002, SB 610 (Chapter 643, Statues of 2001) and SB 221 (Chapter 642, Statues of 2001) amended state law to improve the link between information on water supply availability and certain land use decisions made by cities and counties. SB 610 works in conjunction with SB 221 to promote more collaborative planning between local water suppliers and cities and counties. These statutes require submission of detailed water availability information to be provided to the city and county decision-makers prior to approval of specified large development projects. Both statutes also require this detailed information to be included as part of the administrative record to substantiate an approval action by the city or county on such projects. Both SB 610 and SB 221 recognize local control and decision-making regarding the availability of water for projects and the approval of projects.

**California Water Code**

California Water Code (CWC) Section 10910 describes the water supply assessment (WSA) that must be undertaken for projects referred under Public Resources Code (PRC) Section 21151.9, including an analysis of groundwater supplies. CWC Section 10910 also specifies the circumstances under which a subsequent WSA would be required for a project which previously had a WSA prepared. CWC Section 10631 directs that contents of the urban water management plans include further information on future water supply projects, programs, and groundwater supplies.

Water Code Sections 10910-10915 (also termed Senate Bill 610 or SB610) requires lead agencies to identify if there is a public water system that may supply water for a proposed development project. If a public water system would supply water to the project, then the water supply agency is given 90 days from the start of consultation in which to provide a WSA to the CEQA lead agency. If no public water system would provide water to the project, the CEQA Lead Agency must prepare the WSA.

In accordance with SB 610, because no public water system would provide water to the Project, a WSA was prepared for the County of Imperial as the CEQA Lead Agency for the proposed Seville Solar Farm complex. The purpose of this WSA is to document the Project area's existing and future water supplies and compare them to the area's future water demand including that of the proposed Project. This comparison, conducted for both normal and drought conditions during a 20 year projection, is the basis for an assessment of water supply sufficiency in accordance with the requirements of California Water Code section 10910 (Todd 2013). The WSA prepared for the Project is included as **Appendix K** of this EIR.

## B. LOCAL

### Groundwater Management Ordinance

In 1998, the County adopted a comprehensive Groundwater Management Ordinance for the express purpose of preserving and managing groundwater resources within the County (Imperial County 1998). The Groundwater Ordinance, codified as Chapter 1 of Title 9 of the Imperial County Code, is implemented by the Planning Commission acting upon the direction of the Board of Supervisors.

The Planning Commission, charged by the Board of Supervisors with the regulation of groundwater, can request preparation of an annual report on groundwater supplies and conditions, determine the need for and recommend groundwater management activities (see Section 92202.00), recommend groundwater extraction standards and charges, and establish standards for artificial recharge, among other things.

The Groundwater Ordinance provides the County with various regulatory tools that are designed to avoid or minimize the impact of existing and proposed groundwater extraction activities on groundwater resources and other users. For example, Section 92201.13 provides a remedy for water users who are aggrieved by well interference (defined as a substantial water level decline in a short time period in a localized area caused by extraction) or other impairment or infringement of groundwater use caused by the extraction activities of another party. In such cases, the Planning Commission may issue any order that it determines necessary to provide the petitioning water user with an adequate remedy. The Groundwater Ordinance also requires that existing extraction facilities be registered with the County.

### Imperial County General Plan

The Imperial County General Plan provides goals, objectives, policies and programs regarding the preservation and use of water. **Table 4.13-3** provides a consistency analysis of the applicable Imperial County General Plan goals and objectives from the Conservation and Open Space Element and Geothermal/Alternative Energy and Transmission Element as they relate to the proposed Project. While this EIR analyzes the Project's consistency with the General Plan pursuant to State CEQA Guidelines Section 15125(d), the Imperial County Board of Supervisors ultimately determines consistency with the General Plan.

**TABLE 4.13-3**
**IMPERIAL COUNTY GENERAL PLAN CONSISTENCY ANALYSIS – WATER SERVICE**

| General Plan Goals and Objectives | Consistent with General Plan? | Analysis |
|---|---|---|
| **CONSERVATION AND OPEN SPACE ELEMENT** | | |
| **Preservation of Water Resources** | | |
| **Goal 8:** The County will conserve, protect, and enhance the water resources in the planning area. | Yes | The proposed Project is within the Colorado River Basin and the Salton Sea Transboundary Watershed. The Project intends to use groundwater from private on-site wells. The Project is subject to Regional Water Quality Control Board (RWQCB) regulations and would prepare and implement a stormwater pollution |

**TABLE 4.13-3**
**IMPERIAL COUNTY GENERAL PLAN CONSISTENCY ANALYSIS – WATER SERVICE**

| General Plan Goals and Objectives | Consistent with General Plan? | Analysis |
|---|---|---|
| | | prevention plan (SWPPP) to avoid impacts to the creeks and washes near the Project area. Therefore, the proposed Project is consistent with this goal. Impacts to water quality are discussed further in Section 4.11, Hydrology and Water Quality. |
| **Objective 8.6** Eliminate potential surface and groundwater pollution through regulations as well as educational programs. | Yes | Potential impacts to surface and groundwater quality would be addressed through the National Pollutant Discharge Elimination System, SWPPP and Best Management Practices. In addition, the on-site wastewater system will be designed to meet all federal and state requirements as well as Imperial County Public Health Department, Division of Environmental Health standards. The Project must also comply with the SWRCB's Water Quality Control Policy for siting, design, operation, and maintenance of on-site wastewater treatment systems. Proper design of the wastewater system will ensure that groundwater is protected. Therefore the proposed Project is consistent with this objective. |
| **GEOTHERMAL/ALTERNATIVE ENERGY AND TRANSMISSION ELEMENT** | | |
| **Efficient Water Use** | | |
| **Goal 3** Geothermal/alternative energy operations will be required to efficiently utilize water. | Yes | The proposed Project, as a solar farm complex, is an alternative energy operation. The Project would use groundwater during the construction and for maintenance over the operational life of the Project. The WSA prepared for the Project indicates that sufficient groundwater is available (Todd |

**TABLE 4.13-3**
**IMPERIAL COUNTY GENERAL PLAN CONSISTENCY ANALYSIS – WATER SERVICE**

| General Plan Goals and Objectives | Consistent with General Plan? | Analysis |
|---|---|---|
| | | 2013) (**Appendix k**). The Project does not proposed wasteful or inefficient use of water during construction or operations. Therefore, the proposed Project is consistent with this Goal. |
| **Objective 3.3** Encourage the efficient utilization of water in geothermal/alternative energy operations, and foster the use of non-irrigation water by these industries. | Yes | Refer to analysis under Goal 3. |

### 4.13.3.2 EXISTING SETTING

#### A. REGIONAL SETTING

**River Basin, Watershed and Groundwater Basin**

The Property is within the Colorado River Basin and the Salton Sea Transboundary Watershed. The Project is within the Ocotillo-Clark Valley Groundwater Basin. The Basin is bounded by the Santa Rosa Mountains to the north and northeast, Coyote Creek and Superstition Mountain faults to the west and south, and the Salton Sea and surface drainage divides to the east. Clark Valley (to the northwest) drains toward Clark Lake (which is dry) while the rest of the area drains toward the Salton Sea. The Ocotillo-Clark Valley Groundwater Basin is comprised of valley with a combination of stream, alluvial fan, lake and aeolian deposits (Todd 2013). The Ocotillo-Clark Valley Groundwater Basin receives water from mountain runoff in the north and east at the rate of approximately 1,200 Acre-Feet/Year (AFY) for the Clark Valley portion and 1,100 AFY for the Ocotillo Valley portion. Groundwater in this area generally flows to the southeast (Todd 2013).

**Subbasin**

The property lies within the Allegretti Subbasin of the Ocotillo-Clark Valley Ground Water Basin. The Allegretti Subbasin is bounded by the Salton Sea to the east; the Ocotillo Badlands and Coyote Creek fault to the southwest; the Superstition Hills and the topographic divide between Coyote Creek fault and Superstition Hills faults to the south; and the San Felipe Hills fault and the topographic divide between Tule Wash and San Felipe Creek to the north.

#### B. PROJECT VICINITY

**Aquifer**

There is both a shallow and a deep aquifer in the vicinity of the Project. Water levels in the shallow aquifer are approximately 100 feet higher than the deep aquifer. The shallow aquifer is unconfined and appears to feed the San Felipe and Fish Creek springs located southeast of the Property (Todd 2013). The deep aquifer is at least partially confined. In the vicinity of the Project area, irrigation return flows do not infiltrate to the deep aquifer because of the presence of a perched shallow aquifer (Todd 2013).

### Groundwater

The groundwater basin has been in a state of overdraft as indicated by the water levels in the United States Geological Survey (USGS) (San Felipe) well, which is located on the Property. Water levels declined approximately 163 feet between 1953 and 2001. Along with water decline, there is also evidence of land subsidence on the Allegretti property due to groundwater withdrawals (Todd 2013). However, recovery in groundwater levels is apparent since about 2002, corresponding to a reduction in farming and irrigation on the Property. Due to an obstruction in the monitoring well, the USGS was not able to measure water levels in 2012 and 2013 (Todd 2013).

Water levels in the vicinity of the Property are generally characterized by little or no short-term variation. Although rainfall in the region is flashy both seasonally and annually, water levels exhibit little fluctuation over time. In comparison, the annual precipitation at the Borrego Desert Park station is highly variable. The lack of groundwater level response to precipitation may reflect a significant lag time between rainfall events and recharge. This lag time probably reflects the distance from the washes to the Property and in some areas, the significant thickness of the unsaturated (vadose) zone or the presence of a clay layer separating the shallow aquifer from the deep aquifer. Because groundwater levels in the vicinity do not respond to short-term drought events, the supply of groundwater is effectively the same through normal and drought periods (Todd 2013).

Groundwater from private wells is the sole source of water provided to the Allegretti Farm property. A total of ten wells are located in the vicinity of the Property. The Payne, Gann, Scholl, Steinruck, and Blu-In Park wells are to the west of the Property. Two United States Geological Survey (USGS) test wells, Harpers well, and two Three Flags Ranch wells are to the east of the Property. The Allegretti wells pump the most groundwater while other nearby wells such as Payne, Gann, and Blu-In Park pump small quantities for dust control and landscape irrigation. The Three Flags Ranch wells were pumped briefly in the mid-1980s to irrigate 1,000 to 1,200 acres of citrus. Pumping was soon replaced with Colorado River water from IID (Todd 2013).

### Water Quality

The deep aquifer has better water quality than the shallow aquifer. TDS concentrations in the Allegretti wells have been in the range of 1,200 to 1,800 milligrams per liter (mg/L) between 1962 and 2002. Allegretti Well 7 had slightly better quality (TDS of 880 and 930 mg/L) when sampled in 1982 and 1995, indicative of the superior water quality in the upper part of the deep aquifer. The secondary maximum contaminant level (MCL) derived from human welfare considerations such as taste, odor, and laundry staining for TDS is 500 mg/L (Todd 2013).

## C. Solar Farm Complex

### Water System

A public water system does not serve the Property and an Urban Water Management Plan (UWMP) does not exist for the Property or proposed Project. Under Water Code section 10910(b), if there is no public water system (or associated UWMP) available to serve the project, the CEQA lead agency must prepare the WSA. In this case, the Applicant prepared a WSA for the lead agency (Imperial County) to approve and adopt.

### Water Supply

The Property was initially developed in the early 1950s by the construction of two wells (Jabobs and San Felipe). These wells supplied water to the Property referred to as Ranch Oasis or Jacobs Ranch. The

Jacobs well has long been abandoned and the San Felipe well was converted to a USGS monitoring well in the 1960s. Wells 1 through 7 were drilled between 1961 and 1982. **Table 4.13-4** summarizes the existing wells on the Property.

**TABLE 4.13-4**
**EXISTING WELLS**

| Well | Jacobs Domestic Well | San Felipe/ USGS | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|---|---|
| Lot | Lot 7 | Lot 5 | Lot 5 | Lot 7 | Lot 6 | Lot 1 | Lot 4 | Lot 3 | Lot 5 |
| Status | Abandoned | USGS Monitoring well since 1960s | Inactive | Inactive | Out of service since 1983 | Active, Commercial | Inactive | Active | Active, Domestic |
| Constructed | 1953 | 1953 | 1965 | 1961 | 1967 | 1976 | 1976 | 1976 | 1982 |
| Boring Depth (feet) | >1,200 | 580 | 675 | 729 | 1,250 | 970 | 1,100 | 950 | 400 |
| Casing Diameter (depth) | NA | 14" (0-580) | 14" (0-260') | 14" (0-287') | 16" (0-190) | 16" | 16" | NA | NA |
| | | | 12.75" (260-674') | 12" (287-380') | 14"(190-1,200') | | | | |
| Perforated Intervals | 900-1,200 | 250-565 | 260-674 | 287-667 | 270-680, 900-1,200 | 382-400, 405-955 | 345-390, 401-765, 917-1,050 | 380-1,000 | 340-400 |
| Pump Discharge (gpm) | NA | NA | 1,500 | 1,800 | 3,000 | 2,800 | 1,800 | 3,100 | NA |
| Specific Capacity gpm/ft | NA | NA | 63 | 134 | 177 | 90 | 40 | 50 | NA |

*Source: Todd 2013, Table 3. TBD – To be determined. N/A – not available. gpm = gallons per minute gpm/ft = gallons per minute per foot*

Only three (Wells 4, 6, and 7) are currently active. Well 7 is a domestic well that provides water to an existing residence (Todd 2013).

**Table 4.13-5** provides a summary of historical and current Allegretti Farms water demand. The trend for water pumping on the Property has declined substantially since 1970 when it possibly exceeded 10,000 acre-feet per year (AFY).

**TABLE 4.13-5**
**PAST AND CURRENT WATER DEMAND**

| | Past | | | Current | |
|---|---|---|---|---|---|
| | 1978 | 1983-1996 | 1996-2009 | 2010 | 2011 |
| Estimated Irrigated Area[1] (acres) | 1,700 | 3,250-6,050 | 500 | 80 | 80 |
| Application Rate[2] (acre-feet/acre per year) | 6 | AFY[3] (0 in 1990) | 5.6 | 2.4 | 2.6 |
| Residential[4] (acre-feet/year) | 1 | 1 | 1 | 1 | 1 |
| Reservoir Filling for Water Fowl Hunting[5] | Unknown | | | Estimated to be at least 15 AF | |
| Total (Pumped)[6] (acre-feet) | 10,201 | 3,251-6,051 | 2,801 | 208 | 224 |

*Source: Todd Engineers 2013.*

Notes to Table 4.13-5

[1] From Table 2.

[2] 6 AFY/A crop demand from Koebig & Koebig (1970), 5.6 AFY per acre Imperial County average from Imperial County Farm Bureau (2013), 1.77 AFY/A average historical onion use and 1.95 AF/acre average historic wheat use in Imperial Irrigation District (Dynamic, 2011). Assumed 75% irrigation efficiency for onions and wheat (2.4 and 2.6 AF/acre application rate).
1993-2009: first used flood irrigation but it used too much water at high electricity costs so switched to drip and sprinkler systems. Also constructed systems to reuse agricultural tail water.

[3] From Borrego Water District, 2012.

[4] Estimated usage of one existing home with lawn, fruit trees and swimming pool.

[5] Assumes a 5 acre area with water 3 feet deep filled once per year.

[6] Irrigation return flows were assumed to not return to the deep aquifer because of the presence of a perched shallow aquifer.

Between 1983 and 1996, pumping levels were reported at 3,250 AFY to 6,050 AFY with the exception of 1990 when no pumping occurred. Between 1993 and 1996 pumping averaged 4,400 AFY; and from 1996 to 2009 pumping averaged 2,800 AFY assuming an average of 500 acres were planted and a water application rate of 5.6 acre-feet per year per acre (AFY/A) (**Table 4.13-5**). The Property was leased to another tenant in 2010 and 2011 and the planted acreage and crops changed. Pumping decreased to an estimated 200 AFY to 225 AFY during these two years. This estimate is based on planted acreages and application rates of 2.4 AFY/acre for onions and 2.6 AFY/acre for wheat. It also includes a very rough estimate of water used to fill an on-site reservoir for water fowl hunting. Information on water use in 2012 is not available but most likely less than 2010 and 2011 use. The existing residential well supports one residence, a swimming pool, a lawn, approximately six citrus trees, and a number of palm, tamarisk and pine trees. It was assumed that the existing residence has used approximately 1 AFY (Todd 2013).

### 4.13.3.3 IMPACTS AND MITIGATION MEASURES

#### A. STANDARDS OF SIGNIFICANCE

The impact analysis provided below is based on the following CEQA Guidelines Appendix G thresholds of significance. The project would have a significant impact with regard to water if it would:

a) Require or result in the construction of new water treatment facilities or expansion of existing facilities, the construction of which would cause significant environmental effects;

b) Not have sufficient water supplies available to serve the project from existing entitlements and resources, or if new or expanded entitlements are needed; or

c) Substantially degrade groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted).

#### B. METHODOLOGY

Evaluation of potential water supply and service impacts of the proposed Project were based on correspondence with the Applicant, and the SB 610 - *Water Supply Assessment: Seville Solar Farm Complex* (Todd 2013). The WSA is included as **Appendix K** of this EIR. The purpose of the WSA is to document the Project area's existing and future water supplies and compare them to the area's future water demand including that of the proposed Project. This comparison, conducted for both normal and drought conditions during a 20 year projection, is the basis for an assessment of water supply sufficiency in accordance with the requirements of California Water Code section 10910.

## C. PROJECT IMPACTS AND MITIGATION MEASURES

**Impacts to Groundwater Supply**

**Impact 4.13.5** The proposed Project will require groundwater in association with both construction and operation activities of each solar project. The groundwater resources were found to be adequate to meet Project water demands. Therefore, impacts to groundwater supply are considered **less than significant.**

Groundwater from private wells is the sole source of water provided to the Allegretti Farms property. There are no plans to use recycled water, desalinated water or imported water. The Applicant has applied for nine CUPs from Imperial County for seven existing groundwater wells (Wells #1 thru #7) and two proposed wells (Wells #8 and #9) for the property. A total of 190 AFY of water is being requested for operation of the five solar projects, and an additional 25 AFY of water is being requested for existing and potential future non-solar development (residential/ancillary uses). It is assumed that a total of three homes could be built on the three non-solar lots (Lots 6, 7, and 8), in addition to the two existing residences on the north side of Lot 5. The three new homes were assumed to be built sequentially between 2015 and 2030. As noted in Chapter 2.0, Project Description, no development is proposed on Lots 6, 7 and 8 as part of the proposed Project.

***Construction and Operation***

**Table 4.13-6** provides a list of lot use, approximate acreage and associated supply well.

**TABLE 4.13-6**
**LOT USES AND ASSOCIATED WELLS**

| Solar Farm Lots & Wells | Non-Solar Farm Lots & Wells | Common Development Interest Lots |
|---|---|---|
| • Lot 1 (185 acres): Well #4<br>• Lot 2 (185 acres): Proposed Well # 6<br>• Lot 4 (319 acres): Well #5<br>• Lot 5 (307 acres): Well #1 (and Well #7 [domestic]) | • Lot 6 (266 acres): Well #3<br>• Lot 7 (339 acres): Well #2<br>• Lot 8 (599 acres): Proposed Well #9 | • Lot A (34 acres): Solar projects transmission line corridors<br>• Lot B (11 acres): Common access road corridors<br>• Lot C (5 acres): Site for Imperial Irrigation District switch station<br>• Lot D (5 acres): Site for solar project substations. |

*Source: Todd 2013, p. 6.*

**Table 4.13-7** summarizes the water use per well for the solar farm and domestic wells by lot:

**TABLE 4.13-7**
**WATER USE BY WELL AND LOT**

| Solar Farm Wells | | |
|---|---|---|
| **Lot** | **Well** | **AFY** |
| 1 | 5 | 30 |
| 2 | 8 (proposed) | 30 |
| 3 | 6 | 30 |
| 4 | 5 | 50 |
| 5 | 7 | 50 |
| **Subtotal** | | **190** |

**TABLE 4.13-7**
**WATER USE BY WELL AND LOT**

| Domestic Wells | | |
|---|---|---|
| **Lot** | **Well** | **AFY** |
| 5 | 7 | 10 |
| 6 | 3 | 5 |
| 7 | 2 | 5 |
| 8 | 9 (proposed) | 5 |
| **Subtotal** | | **25** |
| **Total** | | **215** |

*Source: Todd 2013, p. 6.*

**Table 4.13-8** provides an overview of water demand projections associated with the proposed Project for construction, operation and future residential uses. The projections assume that construction will occur in stages with one solar project built by 2015, three solar projects completed by 2020, and all five completed by 2025. No additional future water demand aside from the proposed Seville Solar Farm Complex was identified in the Allegretti Subbasin.

**TABLE 4.13-8***
**PROPOSED FUTURE WATER DEMAND**

| | Future (AFY) | | | | |
|---|---|---|---|---|---|
| | **2015** | **2020** | **2025** | **2030** | **2035** |
| General Operations[1] | 30 | 110 | 190 | 190 | 190 |
| Construction[2] | 100 | 175 | 0 | 0 | 0 |
| Residential[3] | 10 | 15 | 20 | 25 | 25 |
| Total | 140 | 300 | 210 | 215 | 215 |

*Source: Todd 2013, Table 5.*

** Dry year demands are anticipated to be the same as normal year demands*

[1] Assumes that construction will be staged with one project built by 2015, three projects built by 2020 and five projects built by 2025. Solar project water would be from Wells #1, #4, #5, #6, and proposed well #8).

[2] The amount of water needed during project construction is estimated at 650 AF for all five solar projects (100 to 175 AF per project). Table assumes that construction will occur in stages between 2015 and 2020.

[3] Assumes that the existing residential well (Well #7) will produce no more than 10 AFY, and each of the three additional water wells (Wells ## 3, and proposed well #9) not associated with a solar project would each produce no more than 5 AFY (for residential water use).

*Construction Water Demand*

Each solar project will need 100 to 175 AF of water during construction. The combined water use over all five solar projects would total of 650 AF (refer to row 2 and footnote 2 for **Table 4.13-8,** below).

*Operations Water Demand*

Each solar project will need 30 to 50 AFY for a total combined usage of 190 AFY at build out (refer to row 1 and footnote 1 for **Table 4.13-8**). An additional 25 AFY of water is being requested for existing and potential future non-solar development (residential/ancillary uses) (refer to row 3 and footnote 3 for **Table 4.13-8**).

*Groundwater Availability*

The WSA indicates that sufficient groundwater for the proposed Project and adjacent undeveloped land within the Property is available from the Ocotillo-Clark Valley Groundwater Basin. **Table 4.13-9** identifies the water supplies needed to meet future demands in both normal and drought conditions.

**TABLE 4.13-9**
**WATER SUPPLIES NEEDED TO MEET DEMANDS**

| Pumping in AFY | Past and Current | | | Future | | | | |
|---|---|---|---|---|---|---|---|---|
| | 1996-2009 | 2010 | 2011 | 2015 | 2020 | 2025 | 2030 | 2035 |
| **Pumping Groundwater** | 2,801 | 208 | 224 | 140 | 300 | 210 | 215 | 215 |

*Source: Todd, 2013, Tables 4 and 5.*

A detailed water balance of the Ocotillo-Clark Valley Groundwater Basin was not conducted; however, the recovering water levels indicate that the pumping between 2002 and 2011 was within sustainable rates (refer to Figure 3 in the WSA included in Appendix K of this EIR). The lowest level of pumping occurred in 2010 and 2011, which was estimated to be on the order of 200 AFY to 225 AFY. Water levels increased at a greater rate during this period than during 2002 and 2009, indicating that the 215 AFY of pumping for the proposed Project and Project area is sustainable (Todd 2013, p. 9).

**Table 4.13-10** presents the supply needed to meet Project demands under normal climatic conditions and in single-year and multiple-year droughts.

**TABLE 4.13-10**
**COMPARISON OF WATER SUPPLY AND DEMAND**

| | Current (2011) | | | Future (2035) [build out occur by 2030] | | |
|---|---|---|---|---|---|---|
| | Normal Year (AFY) | Single Dry Year (AFY) | Multiple Dry Years (AFY) | Normal Year (AFY) | Single Dry Year (AFY) | Multiple Dry Years (AFY) |
| **Supply Needed**[1] | 224 | 224 | 224 | 215 | 215 | 215 |
| **Demand** | 224 | 224 | 224 | 215 | 215 | 215 |
| **Difference** | 0 | 0 | 0 | 0 | 0 | 0 |

*Source: Todd, 2013, Table 8.*

[1]Note that the "Supply Needed" represents the groundwater pumped to meet demands. Additional groundwater supply may be available.

The use of water in drought years was assumed to be the same as normal years because operations at the solar energy projects will be similar during droughts. Residential water use will remain within the pumping volumes stated in the CUPs granted for each residential well. When granted, the CUPs will expressly limit the annual amount of water which can be produced from each well. Current permits require the installation of a flow meter and annual reports of water use to the Imperial County Planning Department (Todd 2013, p. 10).

In addition, the ongoing monitoring of groundwater levels in the USGS well and the staged implementation of the Project would provide progress checks on the impacts of Project water use on groundwater levels (Todd 2013, p. 11). Therefore, impacts to groundwater supply associated with Project construct and operation are considered **less than significant.**

### *Reclamation*

At the end of the Project's useful life, approximately 20 to 25 years in the future, the solar farm complex's solar equipment and on-site facilities will be removed and the site would be cleared, contoured and reclaimed to its end state to approximate existing idle farmland (with the exception of the roads constructed on Lot B to access each of the parcels created under the major subdivision and all of the water wells). Water demand associated with reclamation activities would be anticipated to be similar to the amount used during construction. Based on future projections (**Table 4.13-10**), impacts to groundwater supply during reclamation are anticipated to be **less than significant**. Likewise, no groundwater use is anticipated in association with the end reclaimed state of the solar farm complex site as idle farmland.

**Mitigation Measures**

None required.

**Significance After Mitigation**

Not applicable.

**Water Distribution and Storage Impacts**

**Impact 4.13.6** The proposed Project would require water distribution and storage infrastructure to serve the proposed solar lots. Any required improvements would occur within the solar farm complex site and would not disrupt and off-site areas. Therefore, impacts associated with water conveyance infrastructure are considered **less than significant**.

### *Construction*

During construction, water used for dust control over the construction period of each of the five solar energy projects would be obtained from either the existing water wells or the new wells to be constructed. Potable drinking water will be supplied by a local provider. Therefore, impacts associated with water conveyance infrastructure are considered **less than significant** during Project construction.

### *Operation*

The Project would require water for domestic uses at the O&M buildings, solar panel washing and fire protection. Water for each of the Property lots/proposed developments would be individually provided by the seven existing water wells (#1 thru #7), plus two new water wells (#8 and #9).

Water for each of the five solar energy project's domestic purposes would be stored in a proposed on-site water tank of approximately 20,000 gallons. An approximately 10,000-gallon portion of the water storage tank would be reserved and dedicated to provide water for fire protection (Regenerate 2013).

As an option, the Ranch Oasis Mutual Water Company, formed in 1994 by Allegretti & Company for the purpose of providing water to the Allegretti Farms property (but never used), could be activated to provide water from one or more of the nine water wells to all of the subdivision lots. The mutual water company may be able to use the existing, extensive Allegretti Farms water pipeline system to distribute water to the solar projects and undeveloped lots. If it is not feasible to use the existing Allegretti Farms pipeline system for water distribution, the mutual water company would need to install approximately 2.25 miles (approximately 11,880 linear feet) of relatively small diameter water pipeline system to distribute water from the well(s) to each of the lots (Carey 2013). The Applicant would be required to obtain the appropriate permit(s) from the Imperial County Public Health Department, Section of Environmental Health & Consumer Protection Services (ICEHCPSS) and/or the ICFD to ensure that all necessary infrastructure complies with County codes and standards.

As all necessary water distribution and storage would be located within the limits of disturbance of the solar farm complex site, and all improvements would be sized in consultation with the appropriate County agencies, impacts to water distribution and storage are considered **less than significant** during Project operation.

***Reclamation***

At the end of the Project's useful life, approximately 20 to 25 years in the future, the solar farm complex site would be cleared, contoured and reclaimed to its end state to approximate existing idle farmland. As part of decommissioning, all solar equipment and other on-site facilities (chain link fence, gates, posts and concrete footings, solar generation facilities, electrical switchyard and substation facilities, transmission lines, control/warehouse buildings, water tanks, foundations, septic systems) would be removed. However, all of the water wells on the Property would not be decommissioned or reclaimed unless the owner of the requested that these features be removed. No water distribution and storage infrastructure would be necessary to serve the solar farm complex site during reclamation activities or as part of its end state as idle farmland. Therefore, **no impacts** to water distribution and storage infrastructure are anticipated in association with Project reclamation.

**Mitigation Measures**

None required.

**Significance After Mitigation**

Not applicable.

### 4.13.3.4 CUMULATIVE SETTING, IMPACTS AND MITIGATION MEASURES

#### A. CUMULATIVE SETTING

The cumulative setting and geographic scope for water supply is the Ocotillo-Clark Valley Groundwater Basin. A detailed water balance of the Ocotillo-Clark Valley Groundwater Basin has not been conducted. However, the recovering water levels indicate that the pumping between 2002 and 2011 were within sustainable rates.

None of the other large scale proposed, approved and reasonably foreseeable renewable energy projects identified in Table 3.0-1 in Chapter 3.0, Introduction to the Environmental Analysis and Assumptions Used, are located within the Ocotillo-Clark Valley Groundwater Basin. The closest project in Table 3.0-1 to the Project, the Ocotillo Wells Solar Project in San Diego County, is located in the Borrego Valley Groundwater Basin and would receive water from the Borrego Valley Aquifer (RBF 2013, pp. 37-38). The Ocotillo Wells State Recreational Vehicle area (OWSRVA) located to the north and west of the Project, lies within the West Salton Sea Subbasin, the Clark Ocotillo Valley Subbasin, and the Borrego Valley Subbasin, all part of the Colorado River Basin (OWSRVA Working Paper #2 2013, p 87). The OWSRVA does not draw water from the Ocotillo-Clark Valley Groundwater Basin. The nearby Anza Borrego State Park is also located in the Borrego Valley Groundwater Basin.

#### B. CUMULATIVE IMPACTS AND MITIGATION MEASURES

**Cumulative Groundwater Supply Impacts**

**Impact 4.13.7** Development of the proposed Project would result in a reduced demand for groundwater from the Ocotillo-Clark Valley Groundwater Basin compared to historical

demand. The WSA prepared for the proposed Project demonstrates that there is adequate groundwater to serve Project development over the next 20 years. No other projects were identified within the cumulative setting to affect groundwater supply. Therefore, cumulative groundwater supply impacts are considered **less than cumulatively considerable**.

***Construction, Operation and Reclamation***

As discussed under Impact 4.13.5, the Project and Property will need 215 AFY of groundwater at buildout. The WSA identified that groundwater pumping in the Ocotillo-Clark Valley Groundwater Basin has been much greater in the past, leading to groundwater level declines. Higher volumes of groundwater were pumped to support former agricultural activities on the Allegretti Farms property. Since approximately 2002, groundwater levels have been recovering due to a reduction in groundwater use associated with a decline in farming on the Property. The current pumping estimates of 200 AFY to 250 AFY, coupled with the groundwater level increases, indicate that the proposed pumping of up to 215 AFY for all of the Property is within sustainable levels during normal and drought conditions. Thus, the Project would result in a **less than cumulatively considerable contribution** to cumulative groundwater supply impacts. Moreover, based on the lack of cumulative development with the Ocotillo-Clark Valley Groundwater Basin, cumulative impacts to groundwater supply are considered **less than cumulatively considerable** during Project construction, operation and reclamation.

**Mitigation Measures**

None required.

**Significance After Mitigation**

Not applicable.

**Cumulative Water Distribution and Storage Impacts**

**Impact 4.13.8** The proposed Project would result in an increased demand for on-site water distribution and storage. No municipal water infrastructure is available on or in the vicinity of the Project area. The Project includes construction of the needed water distribution and storage facilities. Therefore, cumulative impacts to water distribution and storage are considered **less than cumulatively considerable**.

***Construction, Operation and Reclamation***

As discussed under Impact 4.13.5, the proposed Project would require water distribution and storage infrastructure to serve the proposed solar lots. All necessary water distribution and storage would be located within the solar farm complex site and be used exclusively for development on the Property. As no municipal service provider serves the area, the Project would result in a **less than cumulatively considerable contribution** to water distribution and storage impacts. Likewise, because no other cumulative projects would be affected by the Project's provision of on-site infrastructure, cumulative impacts to water distribution and storage would be **less than cumulatively considerable** during Project construction, operation and reclamation.

**Mitigation Measures**

None required.

**Significance After Mitigation**

Not applicable.

## 4.13.4 WASTEWATER SERVICE

### 4.13.4.1 REGULATORY FRAMEWORK

#### A. FEDERAL

**Clean Water Act**

The Clean Water Act (CWA) was adopted in 1972 to protect the waters of the nation. The United States Environmental Protection Agency (EPA) and corresponding state agencies regulate public wastewater systems to ensure compliance with the CWA. The National Pollutant Discharge Elimination System (NPDES) Permit Program was instituted to implement the CWA regulatory standards. All point sources (e.g. a discreet conveyance such as a pipe or ditch) discharging pollutants into waters of the United States are required to obtain an NPDES permit under the CWA. Facilities discharging directly to surface waters must obtain an NPDES permit (PMC 2011, p. 4.13-11). The proposed Project will require an NPDES permit in association with both construction and operation. The NPDES permit is described in further detail in Section 4.11, Hydrology and Water Quality, under the Federal and State Regulatory Framework.

#### B. STATE

**Porter-Cologne Water Quality Act**

The California Legislature enacted the Porter-Cologne Water Quality Control Act in 1969 to preserve, enhance, and restore the quality of the state's water resources. The State Water Resources Control Board (SWRCB) and nine Regional Water Quality Control Boards (RWQCBs) were established by the Act as the primary state agencies charged with controlling water quality in California. The Porter-Cologne Water Quality Control Act establishes water quality policy, enforces surface water and groundwater quality standards, and regulates point and nonpoint source pollutants. The Act also authorizes the SWRCB to establish water quality principles and guidelines for long-range resource planning including groundwater and surface water management programs and the control and use of recycled water.

**State Water Resources Control Board**

The SWRCB has dual authority to allocate and protect water. This two-fold responsibility enables the SWRCB to provide comprehensive protection for California's waters. Nine RWQCBs dispersed throughout California carry out the duties of the SWRCB. The RWQCBs develop and enforce water quality objectives and implementation plans that will best protect the beneficial uses of the state's waters.

The proposed Project is within the jurisdiction of the Colorado River Basin Regional Water Quality Control Board (CRBRWQCB), Region 7. CRBRWQCB regulates the discharge of waste to surface waters (rivers, streams, lakes, wetlands, and the Pacific Ocean) as well as to storm drains, to the ground surface, and to groundwater.

**Assembly Bill 885: California On-site Wastewater Treatment Systems**

Assembly Bill (AB) 885 was signed into law in September 2000. AB 855 requires the SWRCB to develop statewide regulations for the permitting and operation of prescribed on-site wastewater treatment systems, better known as septic systems. These regulations are developed through consultation with the DHS, California Conference of Directors of Environmental Health (CCDEH), California Coastal Commission (CCC), counties, cities, and other interested parties. Individual disposal systems that use subsurface disposal are all included under AB 885 (Imperial County 2011, p. 3.11-5).

### C. LOCAL

**Imperial County General Plan**

The Imperial County General Plan does not contain any goals, objectives, policies or programs that pertain to wastewater or on-site septic systems that are directly applicable to the proposed Project.

**Imperial County Public Health Department, Section of Environmental Health & Consumer Protection Services**

The Imperial County Public Health Department, Section of Environmental Health & Consumer Protection Services, is responsible for issuance of sanitation permits for private on-site sewage disposal systems in the County. Coordination of site design for proposed Projects must occur with the Public Health Department to obtain final permits (PMC 2011, p. 4.13-15).

**Imperial County Land Use Ordinance, Division 10 Building, Grading and Sewage Regulations**

Chapter 13, Sanitation Permits, of the Imperial County Land Use Ordinance, Division 10 Building, Grading and Sewage Regulations, regulates the construction, relocation, and alteration of sewage disposal systems in the unincorporated areas of Imperial County. Standards for such systems described in this chapter must be met for a permit to be issued by the Public Health Department (PMC 2011, p. 4.13-15).

## 4.13.4.2 EXISTING SETTING

The propose Project is located in a remote and undeveloped portion of west-central Imperial County. As such, no municipal wastewater infrastructure is located in the vicinity. The OWSRVA to the north is also undeveloped and not served by a municipal wastewater infrastructure. Septic systems serve the Discovery Center, Ocotillo Wells District Headquarters (OWSRVA Working Paper #2, 2013 p. 73).

One septic system was documented as part of the Phase I Environmental Assessment (ESA) prepared for the Allegretti Property. This system was used in association with two residences located on the northern half of Lot 5. The leach field is located approximately 20 feet behind (north of) the house. The septic tank is checked and/or pumped out every 2 to 3 years.

## 4.13.4.3 IMPACTS AND MITIGATION MEASURES

### A. STANDARDS OF SIGNIFICANCE

The impact analysis provided below is based on the following CEQA Guidelines Appendix G thresholds of significance. The Project would have a significant impact to wastewater if it would:

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

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

c) Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has inadequate capacity within the collection system to serve the project's projected demand in addition to the provider's existing commitments; or

d) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater.

## B. METHODOLOGY

Evaluation of potential wastewater impacts of the proposed Project were based on review of the Project area, information provided by the Applicant, and correspondence with Jeff Lamoure, Deputy Director, County of Imperial Public Health Department.

## C. IMPACTS AND MITIGATION MEASURES

**Wastewater Treatment and Conveyance Infrastructure**

**Impact 4.13.9** The proposed solar farm complex site and surrounding area is currently not served by a wastewater system. An on-site sanitary waste septic system is proposed for each of the five developed solar project lots that would use either leach fields or an underground tank for storage tank to hold wastewater. Therefore, impacts to wastewater treatment and conveyance infrastructure are considered **less than significant**.

### *Construction*

Wastewater would be generated during construction by on-site workers and equipment operators. Portable toilets would be located on-site during construction and sanitary waste would be removed by a local contractor. **No impact** to wastewater treatment and conveyance infrastructure would occur during Project construction.

### *Operation*

Once operational, the proposed Project will generate sanitary wastewater from toilets, showers, and sinks located at the O&M buildings for each of the five solar energy project sites. Wastewater would be collected and sent to a sanitary waste septic system and leach field located on each of the five developed solar energy project lots. An engineered septic system is proposed to treat on-site wastewater flows. The system will be designed based on the number of permanent employees (approximately 9) and the soil and subsurface conditions within the Project area. According to the Preliminary Geotechnical Investigation "The site is underlain by alluvial and eolian deposits consisting of interbedded clean sands, silty sands, silts and sandy silts" (PETRA 2012a, p. 5).

Generally, the sandier on-site soils are likely capable of supporting on-site sewage disposal in the form of leach lines. The possibility that the solar farm complex site may contain soils that cannot support the use of the proposed on-site sanitary waste septic system is present.

According to the Imperial County Public Health Department, Division of Environmental Health, an on-site wastewater treatment system (septic system) must meet the SWRCB's Water Quality Control Policy for siting, design, operation, and maintenance of on-site wastewater treatment systems (OWTS Policy). In addition to State requirements, siting and design must also meet local regulatory requirements as described in Title 9 of Imperial County's Codified Ordinance (LaMoure 2013).

For non-residential facilities, such as the proposed Project, the design flow rate is based on: typical values noted in the California Plumbing Code; the Environmental Protection Agency OWTS Manual; or the number of plumbing fixture units, whichever is greater, for the type of building occupancy. Any deviations must be supported by appropriate water usage information and/or the use of low water use fixtures (LaMoure 2013).

A standard on-site wastewater treatment system application must include, but is not limited to:

- Complete Permit Application for Septic System and fee.

- Soil Percolation Report consistent with Imperial County Uniform Policy and Methods for Soils.
- An evaluation, including a measure of groundwater depth along with a general description of soil type and any limiting conditions encountered at the site.
- A scaled site plan with sufficient detail. The site plan must also identify an OWTS replacement area.

The proposed wastewater system will be required to submit a wastewater treatment system application to the Imperial County Public Health Department, Division of Environmental Health for review and approval prior to construction. The Department's review will ensure that the proposed system is designed and constructed consistent with all applicable codes and standards.

Although the proposed Project area is not currently served by a wastewater system, an on-site septic system meeting all applicable state and local standards will be developed to serve the Project. If percolation tests reveal the on-site soils cannot accommodate a leach field, the septic system may be designed to direct waste streams to an underground tank for storage until it is pumped out (on a periodic or as-needed basis) and transported for disposal at a licensed waste treatment facility. Because an alternative means of accommodating septic waste is available if soils cannot accommodate a leach field, impacts to wastewater treatment and conveyance infrastructure are considered **less than significant**.

***Reclamation***

At the end of the Project's life, approximately 20 to 25 years in the future, the solar farm complex's septic systems would be removed and salvaged if economically feasible. (Portable toilets would likely be located on-site during reclamation activities for workers to use.) The solar farm site would be reclaimed to its end state to approximate the existing idle farmland which would not require provision of wastewater conveyance or treatment. Therefore**, no impact** to wastewater treatment and conveyance infrastructure would occur in association with Project reclamation.

**Mitigation Measure**

None required.

**Significance After Mitigation**

Not applicable.

### 4.13.4.4 CUMULATIVE SETTING, IMPACTS, AND MITIGATION MEASURES

#### A. CUMULATIVE SETTING

Based on the proposed Project's remote location in west-central Imperial County and the absence of municipal infrastructure in the area, the cumulative setting and geographic scope for wastewater service is limited to the Project site. None of the cumulative projects identified in Table 3.0-1, in Chapter 3.0, Introduction to the Environmental Analysis and Assumptions Used, would be relevant to the cumulative setting.

#### B. CUMULATIVE IMPACTS AND MITIGATION MEASURES

**Cumulative Wastewater Treatment and Conveyance Infrastructure**

**Impact 4.13.10** The proposed Project would generate demand for on-site wastewater treatment and disposal. No municipal wastewater infrastructure is available on or in the vicinity of the Project area. An on-site sanitary waste septic system is proposed for each of the five developed solar project lots that would use either leach fields or an underground tank

for storage tank to hold wastewater Therefore, cumulative impacts to wastewater treatment and conveyance infrastructure are considered **less than cumulatively considerable**.

***Construction, Operation and Decommissioning***

The Project is in a remote portion of the County with very limited development in the vicinity (i.e. a few rural residences surrounded by open desert and two parks: Anza Borrego Desert State Park and the Ocotillo State Vehicular Recreation Area). There are not currently any proposed developments in the vicinity of the Project that would require new wastewater facilities.

As discussed under Impact 4.13.9, the Project is not currently served by municipal wastewater service. Sanitation during construction would handled by bringing portable toilets to the Project area, with waste removed periodically by a local contractor.

Sanitary waste generated during Project operations would be collected and sent to an on-site sanitary waste septic system and leach field located on each of the five developed solar project lots. Alternatively, if on-site soils are found incapable of supporting leach fields, the septic system may be designed to direct waste streams to an underground tank for storage. The tank would be pumped out on a periodic or as-needed basis and transported for disposal at a licensed waste treatment facility.

Because the proposed on-site sanitary waste septic system would be self-contained and not linked with a municipal wastewater provider or other off-site system, implementation of the Project would result in a **less than cumulatively considerable contribution** to wastewater treatment and conveyance infrastructure. Likewise, because no other cumulative projects would be affected by the Project's development of an on-site sanitary waste septic system, cumulative impacts to wastewater treatment and conveyance infrastructure would be **less than cumulatively considerable** during Project construction, operation and decommissioning.

**Mitigation Measures**

None Required.

**Significance After Mitigation**

Not applicable.

## 4.13.5 SOLID WASTE

### 4.13.5.1 REGULATORY FRAMEWORK

#### A. STATE

**California Integrated Waste Management Act**

The California Integrated Waste Management Act of 1989 (AB 939) was signed into law by the Governor of California on September 29, 1989. AB 939 requires each California city and county to divert 25 percent of its waste stream by 1995 and 50 percent by 2000 [Public Resources Code (PRC), Section 41780] and to manage waste disposal through the implementation of the Source Reduction and Recycling Element (SRRE). The SRRE was approved by CalRecycle (formerly California Integrated Waste Management Board [CIWMB]) on November 17, 1993 and adopted in December 1993. Under the SRRE, counties are required to demonstrate how they intend to achieve the mandated diversion goals through the implementation of various programs. The County of Imperial agreed to implement the following programs to meet the required diversion goals:

1. Agriculture Plastic
2. Compost Operation
3. Procurement Policy
4. Christmas Tree Diversion
5. Commercial Source and Recycling
6. Construction and Demolition
7. School Recycling
8. County Waste Reduction Policy

**Countywide Integrated Waste Management Plan for Imperial County**

All California counties are required to prepare and submit to CalRecycle a Countywide Integrated Waste Management Plan (CIWMP). The CIWMP is to include all SRREs, all Household Hazardous Waste Elements, a Countywide Siting Element, all Non-disposal Facility Elements, all applicable regional SRREs, Household Hazardous Waste Elements, and an applicable Regional Siting Element (if regional agencies have been formed).

CalRecycle summarizes waste management problems specific to each county and provides an overview of actions that would be taken to achieve the SRRE implementation schedule (PRC Section 41780). Imperial County's CIWMP was approved by CalRecycle (formerly CIWMB) in May of 2000. The Executive Director of the CIWMB approved by Resolution 2008-91 the Five-Year Review Report of the Countywide Integrated Waste Management Plan for the County of Imperial on June 17, 2008 (PMC 2011, p. 4.11-14).

#### B. LOCAL

**Imperial County General Plan**

The Imperial County General Plan does not contain any goals, objectives, policies or programs pertaining to solid waste that are applicable to the proposed Project.

### 4.13.5.2 EXISTING SETTING

Allied Waste Services is the waste and landfill service provider for the Project area. Allied Imperial Landfill accepts Municipal Solid Waste (MSW), construction demolition and inert (CDI) debris as well as household hazardous waste (HHW) from various waste generators within the County of Imperial and a limited amount from Borrego Springs (Hall 2013).

As a permitted Solid Waste Facility, Allied Imperial Landfill is a Class II non-hazardous solid waste landfill that can collect up to 1,700 tons of MSW per day. The landfill has a remaining capacity of approximately 15 million cubic yards (Hall 2013) or 40 years (Bringle 2013).

The proposed solar farm complex site is located on land formerly used for agricultural activities that is currently idle and in the process of reverting to open desert. As such, the Property in its existing condition does not generate any solid waste or require solid waste pick-up and disposal.

### 4.13.5.3 IMPACTS AND MITIGATION MEASURES

#### A. STANDARDS OF SIGNIFICANCE

The impact analysis provided below is based on the CEQA Guidelines Appendix G thresholds of significance for Utilities and Service Systems criteria "f" and "g." The Project would have a significant impact to solid waste if it would:

f) Not be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs; or

g) Fail to comply with federal, state, and local statutes and regulations related to solid waste.

In addition, the following County standards were analyzed to determine significant impacts. Based on these standards, the Project would have a significant impact if it would:

- Result in the need for new systems or supplies, or a substantial expansion or alteration to solid waste materials recovery or disposal; or
- Substantially affect the County's ability to comply with solid waste source reduction programs.

## B. METHODOLOGY

Evaluation of potential solid waste impacts is based on information provided by the Applicant as well as consultation with Allied Waste Services.

## C. IMPACTS AND MITIGATION MEASURES

**Impacts to Solid Waste Service and Landfill Capacity**

**Impact 4.13.11** Solid waste would be generated during demolition, construction and reclamation of the proposed Project. Such materials would be picked up by a locally-licensed waste hauling service and disposed of at a local landfill with sufficient capacity to accept this waste. Thus, a **less than significant impact** is identified with regard to solid waste service and landfill capacity.

### *Construction*

Demolition of existing structures would occur at the outset of construction. Depending on the lot being developed, demolition could include removal of existing outbuildings, an above-ground diesel fuel storage tank within a concrete block secondary containment structure, a covered material storage, a truck weigh scale and shed, and removal of buried water pipes. Site preparation would also include grubbing and removal of some of the windbreaks.

In addition to debris from demolition, small amounts of trash would be generated during construction from packaging materials delivered to the Project area. All construction waste is anticipated to be removed by Allied Waste Services, a contracted commercial garbage collection agency. Allied Waste would haul construction debris and trash to the Allied Imperial Landfill. This facility has a remaining capacity of approximately 15 million cubic yards (Hall 2013).

### *Operation*

Once the solar farm complex begins operations, minimal waste is expected to be generated by the nine on-site employees. As with construction waste, all trash, litter, garbage, and other solid waste generated during Project operation is anticipated to be removed by Allied Waste Services and disposed of at the Allied Imperial Landfill.

Solid waste disposal services are provided on a contract basis. Allied Waste Services has not indicated any problems associated with providing pick-up/removal service to the proposed Project. In addition, the Allied Imperial Landfill has a remaining capacity of approximately 15 million cubic yards (Hall 2013). Therefore, impacts to solid waste service and landfill capacity during Project operation would be considered **less than significant**.

### *Reclamation*

At the end of the Project's useful life, approximately 20 to 25 years in the future, some waste would be generated. Reclamation activities would include dismantling and demolition of above-ground structures; concrete removal; removal and dismantling of underground utilities; excavation and removal of soil; and

final site contour. As part of decommissioning, all solar equipment and other on-site facilities (chain link fence, gates, posts and concrete footings, solar generation facilities, electrical switchyard and substation facilities, transmission lines, control/warehouse buildings, water tanks, foundations, septic systems) would be removed and salvaged if economically feasible. Any materials used for surfacing the access roads internal to each of the solar projects would either be plowed under (if the origin of the road surfacing material is from on site) or taken off site for re-use or disposal (if the origin of the road surfacing material used is from off site). As a good portion of the dismantled materials would likely be salvaged, impacts to solid waste service and landfill capacity are anticipated to be **less than significant** during Project reclamation. Once the site is reclaimed to its end state to approximate the existing idle farmland, no solid waste is anticipated to be generated.

**Mitigation Measures**

None required.

**Significance After Mitigation**

Not applicable.

### 4.13.5.4 CUMULATIVE SETTING, IMPACTS, AND MITIGATION MEASURES

#### A. CUMULATIVE SETTING

The geographic scope for the cumulative setting for solid waste pick-up and disposal is the service area of Allied Waste Services, the County of Imperial. As previously described in the Existing Setting, the County has permitted nine landfills and contracts with private collection companies for solid waste pick-up. Other large scale proposed, approved and reasonably foreseeable renewable energy projects in County of Imperial are identified in Table 3.0-1 in Chapter 3.0, Introduction to the Environmental Analysis and Assumptions Used. All of these projects are located within the cumulative setting for solid waste.

#### B. CUMULATIVE IMPACTS AND MITIGATION MEASURES

**Cumulative Impacts to Solid Waste Service and Landfill Capacity**

**Impact 4.13.12** Implementation of the proposed Project, in combination with other large scale proposed, approved and reasonably foreseeable renewable energy projects in the County of Imperial, would result in cumulative demand for solid waste service and landfill capacity. However, the proposed Project would not generate a substantial quantity of waste, pick-up service is available to serve the Project and sufficient landfill capacity is available. Therefore, cumulative impacts to solid waste service and landfill capacity are considered **less than cumulatively considerable impact**.

***Construction, Operation and Reclamation***

Cumulative renewable energy development in Imperial County identified in Table 3.0-1 would generate an additional demand for solid waste pick-up and disposal services, primarily during construction. These services are provided under contract with private waste hauling companies. Accordingly, each operator may have to add additional staff, trucks and refuse and recycling bins to accommodate the increase in demand. As discussed under Impact 4.13.11, local landfills have remaining capacity to serve cumulative development identified in Table 3.0-1. In addition, the landfill that would receive refuse from the Project (i.e. the Allied Imperial Landfill), has a remaining capacity of approximately 15 million cubic yards (Hall 2013).

As previously discussed, the proposed Project would generate demolition and construction waste during construction. However, once in operation, trash and waste generated by the Project would be minimal based on the small number of employees (nine) and the lack of activities, which would generate waste. Therefore, the proposed Project would have a **less than cumulatively considerable contribution** to cumulative solid waste impacts. In addition, solar energy projects are not considered waste generators and would not substantially increase demand for solid waste services or disposal. Therefore, cumulative impacts to solid waste service and landfill capacity are considered **less than cumulatively considerable** during Project construction, operation and reclamation.

**Mitigation Measures**

None required.

**Significance After Mitigation**

Not applicable.

## 4.13.6 ELECTRICITY

### 4.13.6.1 REGULATORY FRAMEWORK

#### A. LOCAL

**Imperial County General Plan**

The Imperial County General Plan Land Use Element contains one goal and one objective that relate to electricity associated with the proposed Project. **Table 4.13-11** provides a consistency analysis of the applicable Imperial County General Plan goal and objective as they relate to the proposed Project. While this EIR analyzes the Project's consistency with the General Plan pursuant to State CEQA Guidelines Section 15125(d), the Imperial County Board of Supervisors ultimately determines consistency with the General Plan.

**TABLE 4.13-11**
**IMPERIAL COUNTY GENERAL PLAN CONSISTENCY ANALYSIS - ELECTRICITY**

| General Plan Goal and Objective | Consistent with General Plan? | Analysis |
|---|---|---|
| **LAND USE ELEMENT** | | |
| **Public Facilities** | | |
| **Goal 8** Coordinate local land use planning activities among all local jurisdictions and state and federal agencies. | Yes | The proposed Project is being coordinated on a variety of levels as appropriate. The proposed Project includes a solar farm complex on County land as well as construction of an overbuilt 92 kV transmission line on lands under the jurisdiction of the BLM and modifications to the Anza Substation on IID land. The Project is being coordinated with the ICPDSD and IID. The Applicant is also coordinating with various state and local agencies (i.e. California Energy |

**TABLE 4.13-11**
**IMPERIAL COUNTY GENERAL PLAN CONSISTENCY ANALYSIS - ELECTRICITY**

| General Plan Goal and Objective | Consistent with General Plan? | Analysis |
|---|---|---|
| | | Commission, Imperial County Air Pollution Control District, California Department of Transportation, and the California Department of Fish and Wildlife, among others) as necessary. Therefore, the proposed Project is consistent with this goal. |
| **Objective 8.8** Ensure that the siting of future facilities for the transmission of electricity, gas, and telecommunications is compatible with the environment and County regulation. | Yes | The proposed Project is compatible with the environment as evidenced by the presence of existing electrical infrastructure (i.e. IID's 12 kV distribution line and the Anza Substation). The proposed Project is an allowed use within the A-2 zone with a CUP. The Applicant has applied for five CUPs for the Property to be used as a solar farm. Therefore, the proposed Project is consistent with this objective. |

### 4.13.6.2 EXISTING SETTING

IID provides the primary electrical service for residential, commercial, and industrial customers in the vast majority of Imperial County and the Coachella Valley area of Riverside County. A small area in the northeastern portion of the County is served by Southern California Edison.

IID's generating facilities and sources of power are varied and dispersed across the County. The main generating facilities are El Centro (180 megawatt [MW]), Brawley (18 MW), Rockwood (50 MW), and Coachella (80 MW). Hydroelectric facilities along the All American Canal have a maximum capacity of 45 megawatts. The facilities are also located within 15 miles of each other with the exception of the Coachella plant and the hydroelectric facilities (Imperial County 1993b, p. 19-20).

IID's transmission system consists primarily of 161 kilovolt (kV) and 92 kV transmission lines and lower voltage distribution lines. IID also has two 230 kV transmission lines that allow for import/export of electrical power to its system in the County. SDG&E/IID operate a 500 kV transmission line that traverses the southern part of Imperial County and interconnects with the transmission system in Arizona. This 500 kV transmission line is the primary import line for electrical power to be wheeled into SDG&E's system to supply power to San Diego County and the City of San Diego. This line also provides import/export capacity to IID's service area (EDAW 2006a, p. 21).

The IID currently provides electrical power to the property through the 12.5 kV power lines which originate from the Anza Substation and run east-west along the south side of SR78, connecting to the Allegretti Farms property at the existing access road off SR78. The electrical power is used by the seven water wells and an existing residence on the Property.

### 4.13.6.3 IMPACTS AND MITIGATION MEASURES

#### A. STANDARDS OF SIGNIFICANCE

The impact analysis provided below is based on the CEQA Guidelines Appendix G thresholds of significance. The Project would have a significant impact to electrical service if it would:

a) Result in the need for new systems or supplies of electricity, or a substantial expansion or alteration to electrical infrastructure that results in a physical impact on the environment.

#### B. METHODOLOGY

The analysis of impacts to electricity and electrical infrastructure was based on information provided by the Applicant and correspondence with the IID.

#### C. IMPACTS AND MITIGATION MEASURES

**Impacts to Electrical Service and Infrastructure**

**Impact 4.13.13** The proposed Project would increase the demand for electrical services from IID for the five O&M Buildings and additional water well pumps. In addition, the proposed Project requires an expansion of existing IID infrastructure as well construction of new IID infrastructure. The expansion of existing infrastructure and the addition of new electrical components associated with Project construction and operation is considered a **potentially significant impact**.

***Construction***

The Project proposes an IID electrical switch station, electrical substations for each of the five solar energy projects, and internal solar development gen-tie lines to the substations and IID switch station. The Project would also include the construction for, and operation by, the IID of a new 92 kilovolt (kV) transmission line for interconnection to the existing IID Anza Substation. The Project also proposes to modify the Anza Substation to accommodate the interconnection with the 92 kV transmission line. Modifications to the existing Anza Substation include: an extension of the substation fence 44 feet to the west; relocation of the existing 92 kV switch and breaker bank to the expanded substation area and reorientation to a north/south alignment; construction of a new 92 kV switch and breaker bank adjacent to the existing and reconfigured 92 kV switch and breaker bank in order to accommodate the incoming power generation from the Project. In addition, five new steel and/or concrete poles, and up to four new poles may be installed to accommodate reconfiguration. The Project would also construct approximately 0.75 miles of new 92 kV transmission line on the Allegretti Farms property.

The Project would potentially require electricity during construction from the existing IID network of 12.5 kV distribution line which aligns north to south along the western border of Lot 5. Obtaining electricity during construction would require consultation with the IID. Based on the fact that infrastructure is currently available, and electricity required during construction would be short-term, Project construction impacts to electrical service and infrastructure are considered **less than significant** with consultation with IID.

***Operation***

The Project intends to obtain electricity for operation from the existing IID 12.5 kV distribution line. The existing 12.5 kV line aligns north to south along the western border of Lot 5 with extensions to two

existing farm houses (that will be demolished) and the groundwater wells. Electrical power is proposed to be provided by the IID by extending the existing 12.5 kV distribution system on the Property to each O&M building.

Once operational, the Project would generate approximately 135 MWAC. The Project would be interconnected with the Anza Substation to transmit the electricity to the IID electrical grid.

The Project will require the expansion of existing IID electrical facilities as well as the addition of new electrical facilities. In order to extend IID service to the solar farm complex site, IID has indicated that the Applicant will need to complete and submit an application for provision of electrical service (Vargas 2013). To facilitate timely response from IID, the application should be submitted during the environmental review process. IID has also indicated that existing overhead IID electrical distribution lines located both on and off the solar farm complex site would be impacted by Project construction and operation (Vargas 2013). IID considers the expansion of existing IID electrical facilities and construction of new infrastructure a potentially **significant impact.**

***Reclamation***

At the end of the Project's operational life approximately 20 to 25 years in the future, the solar farm complex's solar equipment and on-site facilities will be removed and the site would be cleared, contoured and reclaimed to its end state. The electrical switchyard and substation facilities, transmission lines, control/warehouse buildings, water tanks would be removed. However, the IID-owned facilities (IID switchyard and 92 kV transmission line on the Property, 92 kV transmission line with underbuilt 12.5 kV distribution line, and the 12.5 kV distribution line system constructed on the Property) would not be decommissioned until IID determined that these improvements were no longer needed and could be retired and removed. Reclamation of the site to its end state to approximate the existing idle farmland is anticipated to result in a **less than significant** impact to electrical service and infrastructure.

**Mitigation Measures**

**MM 4.13.13** The Applicant shall undertake a distribution circuit system study through consultation with IID Energy.

*Timing/Implementation:* *As soon as feasibly possible.*
*Enforcement/Monitoring:* *IID.*

**Significance After Mitigation**

Mitigation Measure MM 4.13.13 would address potential impacts to new electrical infrastructure and expansion of IID electrical facilities that would occur during Project construction and operation. Following implementation of MM 4.13.13, impacts to electrical facilities would be reduced to **less than significant**.

### 4.13.6.4 CUMULATIVE SETTING, IMPACTS AND MITIGATION MEASURES

#### A. CUMULATIVE SETTING

The cumulative setting for electrical service is IID's service area, which encompasses almost all of Imperial County. Only a small portion of the northeast corner of the County receives service from Southern California Edison. The proposed Project and all other large scale proposed, approved and reasonably foreseeable renewable energy projects in the County of Imperial identified in Table 3.0-1 in Chapter 3.0, Introduction to the Environmental Analysis and Assumptions Use, are within IID's service area. All would result in a net benefit with regard to electricity generation.

### B. CUMULATIVE IMPACTS AND MITIGATION MEASURES

**Cumulative Impacts to Electric Service**

**Impact 4.13.14** Implementation of the proposed Project, in combination with other large scale proposed, approved and reasonably foreseeable renewable energy projects in the County of Imperial, would result in a minimal increase in the current use of IID electricity and a substantial increase in solar energy generation. Therefore, cumulative impacts to electrical service are considered **less than cumulatively considerable**.

***Construction, Operation and Reclamation***

The proposed Seville Solar Farm Complex, in combination with other large scale proposed, approved and reasonably foreseeable renewable energy projects in the County of Imperial in Table 3.0-1, as well as cumulative buildout of Imperial County, would contribute to the demand for electricity in IID's service area. The proposed Project, as well as the large scale proposed, approve and reasonably foreseeable renewable energy projects identified in Table 3.0-1, may contribute to some demands in IID's service area for electricity, but would also generate a substantial amount of electricity for sale to the electrical grid. The proposed Project alone would contribute approximately 135 MW. Likewise, the amount of electricity required by the proposed Project would be more than offset by the 135 MW the Project would generate. Therefore, the proposed Project would result in a beneficial contribution to electrical service through the addition of electricity to the IID grid.

Overall, the proposed Project, in combination with other large scale proposed, approved and reasonably foreseeable renewable energy projects in the County of Imperial would generate electricity, providing additional power to the IID electrical grid. Each project would also construct the necessary infrastructure to convey or distribute the electricity either individually or collaboratively with other projects in the vicinity. Therefore, the Project would result in a **less than cumulatively considerable contribution** to cumulative impacts to electrical service and infrastructure. Likewise, cumulative impacts to electric service and infrastructure are considered **less than cumulatively considerable** during Project construction, operation and reclamation.

**Mitigation Measures**

Not required.

**Significance After Mitigation**

Not required.

## 4.13.7 TELEPHONE/INTERNET

### 4.13.7.1 REGULATORY FRAMEWORK

### A. LOCAL

**Imperial County General Plan**

The Imperial County General Plan does not contain any goals, objectives, policies or programs pertaining to telecommunications that are applicable to the proposed Project.

### 4.13.7.2 EXISTING SETTING

AT&T provides telephone and internet service to Imperial County (IVEDC 2013). However, currently there are no telecommunications facilities (AT&T or other service provider) in place to serve the Project

area. Level 3 Communications provides satellite telecommunication service and transmits information over fiber optic networks and media delivery over a content delivery network (Level 3 2013). In the absence of telecommunications facilities, Level 3 could provide service to the Project area via satellite.

## 4.13.7.3 IMPACTS AND MITIGATION MEASURES

### A. STANDARDS OF SIGNIFICANCE

The impact analysis provided below is based on the CEQA Guidelines Appendix G thresholds of significance for Utilities and Service Systems. The Project would have a significant impact to telecommunication service if it would:

a) Result in the need for new telecommunications systems, or a substantial expansion or alteration to telecommunication infrastructure that results in a physical impact on the environment.

### B. METHODOLOGY

The analysis of impacts to telephone and internet service was based on information provided by the Applicant.

### C. IMPACTS AND MITIGATION MEASURES

**Impacts to Telephone and internet Service**

**Impact 4.13.15** The proposed Project and surrounding area is currently not served by a telecommunications provider. The proposed Project would need telephone and internet service for construction and operation and would therefore increase the demand for telephone and internet services. However, Level 3 Communications would provide satellite service to the Project as needed. Therefore, impacts to telephone and internet service are considered **less than significant.**

***Construction and Operation***

The Project is in a remote portion of Imperial County with very limited development in the vicinity (i.e. a few rural residences surrounded by open desert and two parks: Anza Borrego Desert State Park and the Ocotillo State Vehicular Recreation Area). Because of Project's remote location away from populated areas, standard telephone and internet services are not available. As an alternative, the Applicant will seek Level 3 Communications for satellite telephone and internet services to the Project area. The use of Level 3 Communications for telephone and internet services would not require new telecommunications systems as service will be provided via satellite signals. Therefore, impacts to telephone and internet service are considered **less than significant**.

***Reclamation***

At the end of the Project's operational life, approximately 20 to 25 years in the future, the solar farm complex's solar equipment and on-site facilities will be removed and the site would be cleared, contoured and reclaimed to its end state. No telephone or internet services are anticipated to be necessary upon reclamation of the site to approximate the existing idle farmland. Therefore, **no impact** to telephone and internet service are anticipated in association with Project reclamation.

**Mitigation Measures**

None required.

**Significance After Mitigation**

Not Applicable.

### 4.13.7.4 CUMULATIVE SETTING, IMPACTS AND MITIGATION MEASURES

#### A. CUMULATIVE SETTING

The Project area is not currently served by telephone and internet service. As described in the Existing Setting above, there are no telecommunications facilities in place to serve the Project area. Instead, the Project would receive telephone and internet service from Level 3 Communications via satellite. Therefore, the geographic scope for the cumulative setting for telephone and internet service is limited to the Project site and all other large scale proposed, approved and reasonably foreseeable renewable energy projects in the County of Imperial identified in Table 3.0-1 in Chapter 3.0, Introduction to the Environmental Analysis and Assumptions Use, would not be applicable to the cumulative analysis.

#### B. CUMULATIVE IMPACTS

**Cumulative Impacts to Telephone and Internet Services**

**Impact 4.13.16** Implementation of the proposed Project, in combination with other large scale proposed, approved and reasonably foreseeable renewable energy projects in the County of Imperial, would not result in cumulative demands to telephone and internet service. Telecommunication service providers provide service to individual development projects on an as-needed basis. Therefore, cumulative impacts to telephone and internet services are considered **less than cumulatively considerable**.

***Construction, Operation and Reclamation***

There are no standard telecommunications facilities currently available in the Project area. Level 3 Communications would provide service via satellite to the Project. As such, the telephone and internet services to the Project would be independent of the surrounding service area.

Because of the separate function of provision of telecommunications services via satellite, implementation of the Project would not cause a cumulative increase in demand to telephone and internet services in Imperial County. Telephone and internet service for projects in the County would be provided by AT&T on an as-needed basis. Therefore, the Project would result in a **less than cumulatively considerable contribution** to cumulative impacts to telephone and internet service. Likewise, cumulative impacts to telephone and internet service are considered **less than cumulatively considerable** during Project construction, operation and reclamation.

**Mitigation Measures**

None required.

**Significance After Mitigation**

Not Applicable.

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