

4.17 UTILITIES AND SERVICE SYSTEMS

4.17.1 Regulatory Setting

This section presents a description of the laws, policies, and plans relevant to utilities and service systems.

National Environmental Policy Act

NEPA is a federal law under the jurisdiction of the Environmental Protection Agency (USEPA) that requires federal agencies to consider environmental values in the decision-making process. The federal agencies must consider environmental impacts and consequences of proposed actions and reasonable alternatives that could potentially reduce impacts (USEPA 2014a).

California Environmental Quality Act

CEQA is a State document that is part of the California Code of Regulations. CEQA requires projects to undergo environmental review; depending on the potential effects, a more substantial review may need to be conducted in the form of an Environmental Impact Report (EIR). In an EIR, mitigation measures are proposed for any potentially significant impacts in order to reduce the level of impact, and feasible alternatives are considered (CNRA 2014). This EIR has been prepared as a Programmatic EIR pursuant to CEQA Guidelines, Section 15168. Completion of the Programmatic EIR would allow future individual renewable energy projects to “tier” off this environmental document. The proposed Project would be implemented on a “project-by-project” basis based on County approval of individual renewable energy projects. Future renewable energy projects developed under the proposed Project would need to be reviewed in the context of this Programmatic EIR to determine if additional environmental documentation would be required.

The Energy Policy Act of 2005

The Energy Policy Act of 2005 was passed by Congress in order to “...ensure jobs for our future with secure, affordable, and reliable energy...” The Energy Policy Act of 2005 outlines policies to be implemented for energy efficiency including energy efficiency in buildings and energy-efficient appliances, renewable energy promotion including geothermal and hydroelectric energy, policies for natural gas production and petroleum reserves, initiatives regarding clean coal production and federal coal leases, policies regarding nuclear energy production, programs for alternative fuel vehicles and automobile efficiency, and research and development programs for the future of energy production, among other items. The Energy Policy Act of 2005 also outlines policies for the Department of Energy Management, training personnel, energy policy tax incentives, and incentives for innovative technologies.

The Integrated Waste Management Act of 1989

The California Integrated Waste Management Act of 1989, also referred to as AB 939, set requirements for waste diversion including 25-percent diversion by 1995 and 50-percent diversion by 2000. Diversion was to be achieved following city and county implementation of a Source Reduction and Recycling Element where each city and county devised programs to reach the diversion goals. AB-341 was adopted in 2012 and requires 75-percent recycling by 2020.

Imperial County's programs to meet the diversion goals include the following: compost operation, procurement policy, Christmas tree diversion, commercial source and recycling, construction and demolition, school recycling, and County Waste Reduction Policy.

Imperial County Hazardous Materials Area Plan

The Imperial County Hazardous Materials Area Plan was prepared through coordination with the Department of Toxic Substances Control, the Imperial County Fire Department, the Imperial County Public Health Department, the Imperial County Office of the Agricultural Commissioner, the Imperial County Department of Public Works, Imperial County Planning and Development Services, and the Brawley Fire Department. The purpose of the Hazardous Materials Area Plan is to identify responsibilities of the local, State and federal agencies for incidents involving the release or potential release of hazardous substances, with revisions and updates occurring every three years.

The Imperial County Hazardous Materials Area Plan includes emergency response procedures; dispatch procedures for hazardous materials incidents; monitoring and decontamination guidelines for emergency response personnel and equipment; pre-emergency planning; procedures to access local, State, and federal funding and assistance; provisions for access to State-approved and permitted hazardous waste disposal facilities and emergency contractors; procedures for notification and coordination; provisions for training; and procedures for public safety and information.

4.17.2 Existing Environmental Setting

Imperial County is served by a variety of governmental organizations and a few private utility companies which play a role in local land use management and development. The seven incorporated cities within the County are Brawley, Calexico, Calipatria, El Centro, Holtville, Imperial, and Westmorland. Each jurisdiction has its own General Plan; and each provides facilities for water and sewage treatment, police and fire services, and other governmental functions; however, the Imperial Irrigation District (IID) is the principal regional agency in the County in terms of services provided.

The unincorporated communities which also provide local services through single or multipurpose special districts are Bombay Beach, Heber, Niland, Ocotillo, Palo Verde, Seeley, Winterhaven, and the Salton City area. Services provided are usually limited to water treatment for domestic use but may also include sewage treatment, fire protection, and park maintenance. For example, in Ocotillo only a volunteer fire department is provided by its district; in Palo Verde, only water treatment is provided; sewer and water treatment is provided in Heber and Seeley; and sewer, park maintenance, and management of a local golf course is provided in Salton City.

Private utility companies also operate in the County, the largest of which is Southern California Gas Company, which serves Calipatria, Calexico, El Centro, Heber, Holtville, Imperial, Niland, Seeley, Brawley, and Westmorland. Several private water companies provide domestic water in Ocotillo; and in Hot Mineral Spa, sewage treatment is provided by individual mobile home/RV parks.

Utilities

Water and Sewer

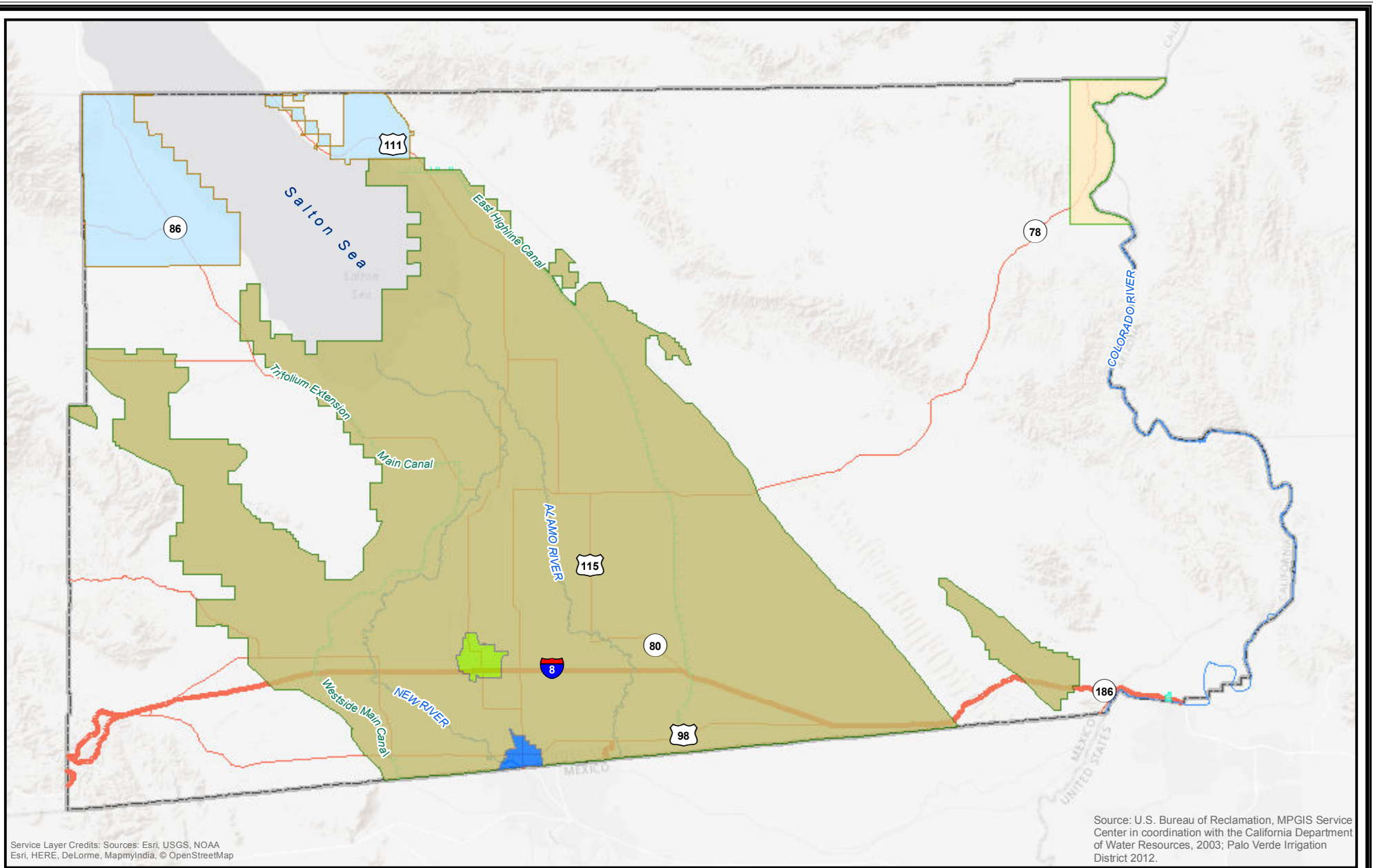
Approximately 98 percent of the water supplied by IID is used for agricultural purposes. IID distributes water to over 500,000 acres of farmland. In addition to the water being diverted to the Imperial Valley

by the Imperial Irrigation District, five other water districts supply water to other areas in Imperial County outside the IID boundaries. These are the Palo Verde Irrigation District, the Palo Verde County Water District, the Bard Water District, the Winterhaven Water District, and the Coachella Valley Water District.

IID provides water to 10 communities in Imperial County for domestic purposes. These communities include Calexico, Holtville, El Centro, Imperial, Brawley, Westmorland, Calipatria, Niland, Seeley, and Heber. Each of these cities and unincorporated communities has its own water treatment facilities for treating and distributing water within its jurisdiction. Ocotillo/Nomirage is provided water service by private water companies and individual wells; Palo Verde is supplied by the Palo Verde County Water District; and Hot Mineral Spa/Bombay Beach are supplied by the Coachella Valley Water District. The Winterhaven Water District supplies water to approximately 1,000 customers in Winterhaven. The water district boundaries are shown on Figure 4.17-1.

Water service in rural areas for nondrinking domestic use has also historically been provided from IID canals and laterals. Because this water has not received treatment for human consumption, these rural customers supplement the IID water with drinking water delivered by private companies to 100-gallon water storage tanks at each home.

Sewage treatment is provided by each of the cities and by the unincorporated communities of Heber, Niland, Seeley, and Winterhaven. These sewage treatment plants are licensed by the California RWQCB for the Colorado River Basin and generally provide primary and secondary treatment. Rural residences on existing lots and minor subdivisions utilize septic tanks and leach line systems. Bombay Beach has a public sewage system operated by the Coachella Valley Water District, while Hot Mineral Spa relies on subsurface septic systems or facilities operated by mobile home and recreational vehicle (RV) parks. Ocotillo/Nomirage and Palo Verde have no sewage treatment facilities and also rely on subsurface septic systems.



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Source: U.S. Bureau of Reclamation, MPGIS Service Center in coordination with the California Department of Water Resources, 2003; Palo Verde Irrigation District 2012.

Legend

- Coachella Valley Water District
- Imperial Irrigation District
- City of Calexico Water Service Area
- City of El Centro Water Service Area
- Winterhaven County Water District
- Palo Verde Irrigation District

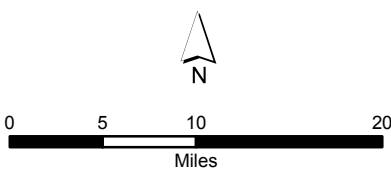


Figure 4.17-1
 Imperial County Renewable Energy and
 Transmission Element Update PEIR
 Water District Boundaries

Electric Power

Electric power is supplied to Imperial County primarily by IID, with the exception of the Palo Verde area in the northeast corner of the County, which is supplied by SCE. The IID service territory covers 6,471 square miles, including all of Imperial County along with parts of Riverside and San Diego counties (Figure 4.17-2). Imperial Irrigation District was formed pursuant to the California Irrigation District Act. IID is a State agency formed and existing for governmental purposes. Its legal boundaries are all situated in the County of Imperial. IID's powers and purposes are set forth in the Irrigation District Law found in the Water Code, Section 20500. After discovering its potential for low-cost hydroelectric energy from its five falling water drops along the All-American Canal, IID entered the power industry in 1936. Today, IID serves electricity to more than 145,000 customers in Imperial County and parts of Riverside and San Diego counties. Furthermore, IID owns, controls, and maintains its transmission network that includes more than 1,400 miles of high-voltage lines (IID 2013). Electric power service areas are shown on Figure 4.17-2.

Natural Gas

Southern California Gas Company serves the Imperial County with natural gas and is headquartered in Los Angeles. Southern California Gas Company is a subsidiary of Sempra Energy and is the largest natural gas utility in the nation. Southern California Gas Company delivers natural gas via two 10-inch lines which generally run south through the County in Range 14 East. Liquid petroleum products are delivered to and are transported through the County via the 20-inch Santa Fe Pacific Pipeline (ICPDS 2009).

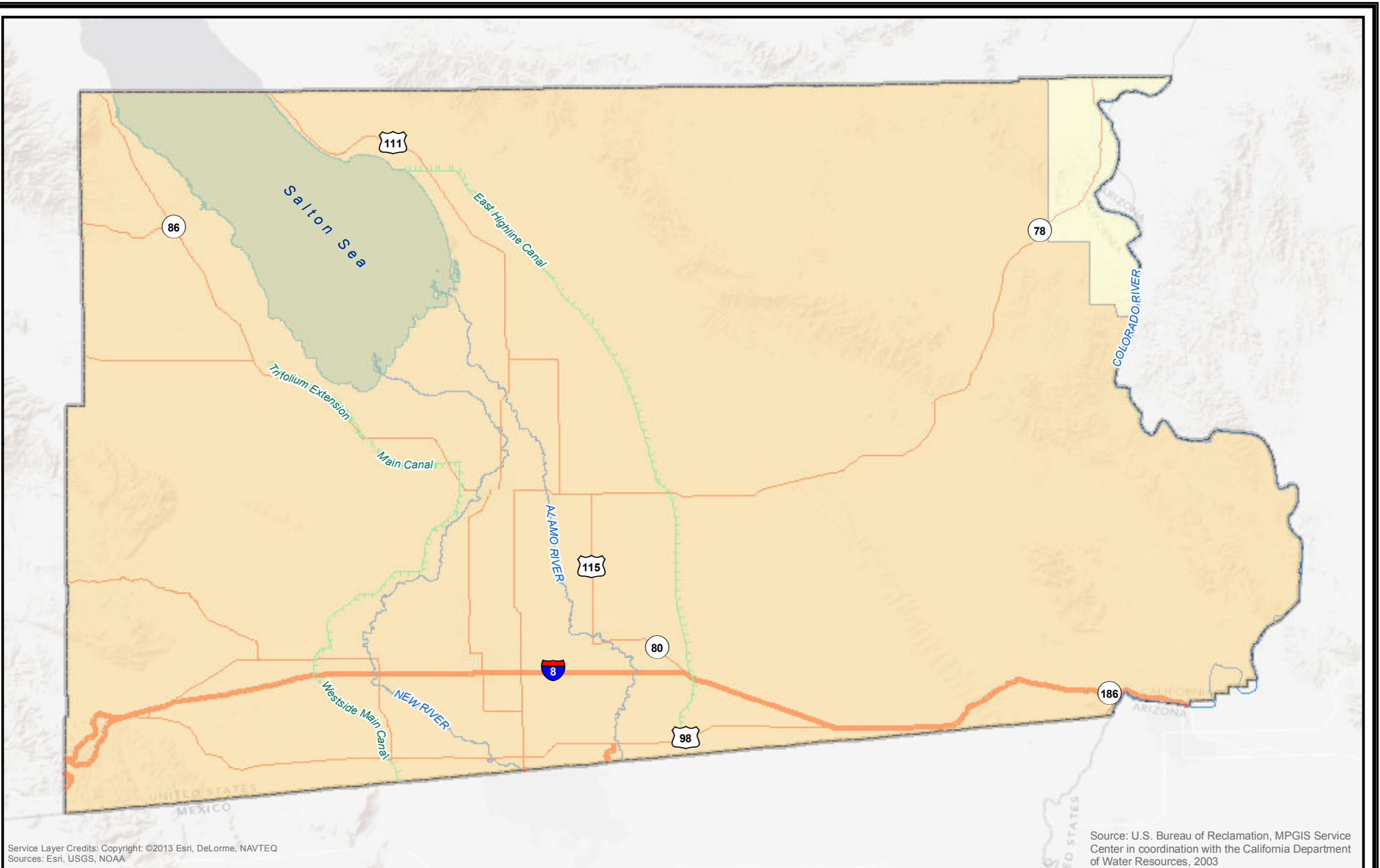
Solid Waste Disposal

Waste collection, storage, and disposal are provided by the cities and communities in Imperial County via either a city-operated system or a contract with a private firm. Waste collection services are also available in some unincorporated areas through private firms (ICPDS 2009).

Currently, the County owns and operates four Class III disposal sites throughout Imperial County that accept nonhazardous solid waste. The County also owns one landfill, which is operated by a private company, Burrtec Waste Industries, Inc. The County owns and operates three transfer stations that accept nonhazardous solid waste.

In addition to the public sites described above, the following private waste disposal facilities include: Imperial Landfill (Class III) in the unincorporated area northwest of the City of Imperial, Clean Harbors (Class I) west of the City of Westmorland, and Desert Valley Company (Class II) northwest of the City of Westmorland (ICPDS 2009). Each of these private waste disposal facilities is equipped to handle specific waste based on its designation as a Class I, Class II, or Class III facility.

Specifically, the Clean Harbors Westmorland Facility is a Class I facility that is fully permitted to accept and manage a variety of hazardous wastes including RCRA hazardous waste, naturally occurring radioactive material (NORM) waste from geothermal operations, soils quarantined by the Animal and Plant Health Inspection Service (APHIS), and California-regulated waste materials. The facility is 640 acres in size and provides services such as treatment of heavy metals, microencapsulation of contaminated debris, solidification of liquid and semi-solid wastes, direct landfill of wastes, processing of bulk and/or drummed wastes, and storage prior to final treatment and/or disposal (Clean Harbors 2007).



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Sources: Esri, USGS, NOAA

Source: U.S. Bureau of Reclamation, MPGIS Service Center in coordination with the California Department of Water Resources, 2003

Legend

Service Areas

- Imperial Irrigation District
- Southern California Edison

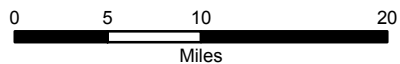


Figure 4.17-2
Imperial County Renewable Energy and
Transmission Element Update PEIR
Electric Power Services

Since solar panels contain materials such as cadmium, lead, or selenium, solar panels are considered a RCRA-regulated waste. The Clean Harbors Westmorland Facility is one of the facilities that is permitted to handle RCRA hazardous waste. In addition, RCRA hazardous wastes such as solar panels would be disposed of only at facilities permitted to accept such material.

Telecommunications

The AT&T Corporation provides telephone service to Imperial County. A number of companies provide wireless or cell phone services for the area as well. High-speed internet access in Imperial County is offered by both AT&T Corporation and Time Warner Cable.

4.17.3 Significance Criteria

The thresholds for significance of impacts for the analysis are based on the environmental checklist in Appendix G of the State California Environmental Quality Act (CEQA) Guidelines. Consistent with the CEQA Guidelines and the professional judgment of the County's staff and environmental consultants, the proposed Project would result in a significant impact on the environment if it would:

- Exceed wastewater treatment requirements of the applicable RWQCB
- Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects
- Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects
- Not have sufficient water supplies available to serve the project from existing entitlements and resources, or would require new or expanded entitlements
- Result in a determination by the wastewater treatment provider which serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments
- Be served by a landfill without sufficient permitted capacity to accommodate the project's solid waste disposal needs
- Not comply with federal, State, and local statutes and regulations related to solid waste

4.17.4 Impacts and Mitigation

UTIL-1: Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board

Construction and Operation

Future renewable energy facilities developed under the proposed Project would generate a minimal amount of wastewater during construction. Wastewater would most likely be contained within portable toilet facilities and disposed of at an approved site. Wastewater associated with operation of renewable energy projects would be treated via onsite septic systems. Therefore, implementation of the proposed Project would not exceed wastewater treatment requirements of the Regional Water Quality Control Board. Impacts would be less than significant, and no mitigation measures would be required.

UTIL-2: Require or result in construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects

Construction and Operation

The proposed Project would be implemented on a “project-by-project” basis based on County approval of individual renewable energy projects. Consequently, estimates of water supply and wastewater treatment capacity are not known at this time; however, the proposed Project would be limited to development of future renewable energy facilities and would not construct residential, commercial, or other uses that would require substantial amounts of water supply or generate substantial amounts of waste water. Permanent water resources needed for the proposed Project would be limited to domestic use within operations and maintenance buildings, solar panel washing, and fire protection services. It is not anticipated that these permanent water service needs would impact water supply within Imperial County. As described in the impact discussion for UTIL-1 above, wastewater generated during construction and operation of future renewable energy facilities would be treated on site. Therefore, impacts associated with water and wastewater treatment facilities would be less than significant, and no mitigation measures would be required.

UTIL-3: Require or result in the construction of new stormwater drainage facilities, the construction of which could cause significant environmental effects

Construction and Operation

As described in the impact analysis for HYDRO-3 in Section 4.9-4, construction of future renewable energy facilities developed under the proposed Project could affect natural surface water and groundwater flow systems by diverting and/or channelizing onsite and nearby streams to accommodate access road and facility construction. Such diversions of natural surface water and groundwater flows could affect existing stormwater drainage facilities and result in a significant impact.

Mitigation Measures

Mitigation measure HYDRO-3 would also be implemented to reduce impacts associated with stormwater drainage facilities.

Significance After Mitigation

Implementation of mitigation measure HYDRO-3 would reduce impacts associated with stormwater drainage facilities to a level less than significant.

UTIL-4: Have sufficient water supplies available to serve the project from existing entitlements and resources, or new or expanded entitlements are needed

Construction and Operation

The proposed Project would be implemented on a “project-by-project” basis based on County approval of individual renewable energy projects. Consequently, estimates of water supply needs and availability are not known at this time; however, the proposed Project would be limited to development of future renewable energy facilities and would not construct residential, commercial, or other uses that would require substantial amounts of water supply. Permanent water resources needed for the proposed Project would be limited to domestic use within operations and maintenance buildings, solar panel washing, and fire protection services. It is not anticipated that these permanent water service needs would impact water supply within Imperial County.

Future renewable energy would need to demonstrate an approved water source, likely from surface canal water or a groundwater well for these water uses. If available, future renewable energy facilities must attempt to connect to nearby permitted water treatment facilities. If no water treatment facilities are nearby, future renewable energy facilities would be required to provide potable water if needed for support facilities. Potable water can be provided by an onsite groundwater well, or by installing an onsite water treatment facility to treat surface canal water. Project proponents of future renewable energy facilities would be required to contact the Imperial County Division of Environmental Health (DEH) early in the planning process to determine if the facilities would meet the requirements of a public water system. If a groundwater well would be required, the project proponent of a future renewable energy facility would be required to obtain a conditional use permit from the Imperial County Planning and Development Services Department. Compliance with applicable regulatory requirements and the limited amount of water that would be needed for future renewable energy facilities would ensure that impacts related to existing water entitlements would be less than significant. No mitigation measures would be required.

UTIL-5: Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project’s projected demand in addition to the provider’s existing commitments

Construction and Operation

Future renewable energy projects developed under the proposed Project would generate a minimal amount of wastewater during construction. Wastewater would most likely be contained within portable toilet facilities and disposed of at an appropriate site. Plans for addressing sanitation during construction of future renewable energy facilities would need to be reviewed and approved by Imperial County DEH. Future renewable energy facilities developed under the proposed Project would generate limited amounts of wastewater requiring treatment. Future renewable energy facilities that would need wastewater treatment, but would be unable to connect to a municipal wastewater treatment facility, would be required to install an onsite wastewater treatment system. Project proponents of future renewable energy facilities must contact Imperial County DEH to determine the size and type of

wastewater system that would be required. Plans for wastewater treatment and disposal must be approved by Imperial County DEH in order for the agency to provide concurrence on issuance of building permits. Therefore, impacts would be less than significant, and no mitigation measures would be required.

UTIL-6: Be served by a landfill without sufficient permitted capacity to accommodate the project's solid waste disposal needs

Construction and Operation

Future renewable energy facilities developed under the proposed Project would generate solid waste during construction and operation. Solid waste would likely be disposed of using a locally licensed waste hauling service to transport the materials to a permitted facility. The County owns five Class III disposal sites throughout the County that do not accept hazardous waste. In addition, three private waste disposal facilities are located within the County. One of these, the Clean Harbors Westmorland Facility, is a Class I facility that is fully permitted to accept and manage a variety of hazardous wastes, including RCRA hazardous waste. Since solar panels contain materials such as cadmium, lead, or selenium, solar panels are considered a RCRA-regulated waste. RCRA hazardous wastes such as solar panels would be disposed of only at facilities permitted to accept such material. Therefore, future renewable energy facilities developed under the proposed Project would generate solid waste that may exceed the permitted capacity of existing landfills within Imperial County and may result in a significant impact.

Mitigation Measures

UTIL-6: Complete a Waste Management Plan for construction and decommissioning. Future renewable energy facilities developed under the proposed Project would be required to develop a Waste Management Plan that shall identify the projected waste generated by the activity and feasible methods to divert a minimum of 75 percent of waste from landfills, such as sorting and recycling of materials, reuse of materials, and waste reduction measures.

Significance After Mitigation

Implementation of mitigation measure UTIL-6 would reduce impacts associated with the permitted capacity of existing landfills within Imperial County to a level less than significant.

UTIL-7: Comply with federal, State, and local statutes and regulations related to solid waste

Construction and Operation

Future renewable energy facilities developed under the proposed Project would generate solid waste during construction and operation; however, they would be required to comply with the 1989 California Integrated Waste Management Act and AB-341, which requires 75-percent recycling by 2020. As noted above, any hazardous wastes such as solar panels would be disposed of at facilities permitted to accept such materials. Implementation of mitigation measure UTIL-6 described above would ensure consistency with existing solid waste regulations.

Mitigation Measures

Mitigation measure UTIL-6 would also be implemented to reduce impacts associated with solid waste regulations.

Significance After Mitigation

Implementation of mitigation measure UTIL-6 would reduce impacts associated with solid waste regulations to a level less than significant.

4.17.5 Cumulative Impacts

Construction and operation of renewable energy facilities developed under the proposed Project would not require the construction or expansion of stormwater or wastewater facilities. Current and projected water consumption in Imperial County is presented in Table 4.17-1. A majority of water consumption in the IID service area is for agricultural uses; however, the amount of water used by municipal and nonagricultural uses is projected to increase, and agricultural water consumption is projected to decrease over the next 40 years.

Table 4.17-1: Projected Imperial Valley Water Consumption (AFY) 2015-2045 Existing Conditions, Normal Water Year

Year	Total Delivery Inflows To IID Service Area (total Imperial Valley) (afy)	Total Use (afy) (% of total)		
		Municipal	Nonagricultural	Agricultural
2015	2,236,300	55,877 (2.50%)	66,382 (2.97%)	2,114,041 (94.53%)
2020	2,316,300	61,397 (2.65%)	78,015 (3.37%)	2,176,888 (93.98%)
2025	2,284,300	67,335 (2.95%)	85,558 (3.75%)	2,131,407 (93.31%)
2030	2,279,300	71,233 (3.13%)	93,101 (4.08%)	2,114,966 (92.79%)
2035	2,297,300	75,517 (3.31%)	100,644 (4.42%)	2,103,139 (92.27%)
2040	2,297,300	83,623 (3.67%)	108,187 (4.75%)	2,087,490 (91.58%)
2045	2,297,300	92,598 (4.06%)	116,655 (5.12%)	2,070,047 (90.82%)

Source: ORNI 21, LLC Geothermal Project Draft EIR

IID has adequate policies, programs, and projects in place to provide water to its users for 20 years, during both normal and single dry years. Additionally, IID’s Equitable Distribution Plan is sufficient to manage water supply during multiple dry years. Nonagricultural projects would be charged a water supply development fee in order to fund implementation of the Integrated Regional Water Management Plan (IRWMP) and related water supply projects. Because IID has sufficient existing supplies and entitlements to serve anticipated nonagricultural projects in the future, the proposed Project’s incremental demand for water from IID would not be cumulatively considerable.

Construction, operations, maintenance, and decommissioning activities of future renewable energy facilities developed under the proposed Project would generate solid waste, especially during decommissioning. If multiple renewable energy facilities were to be decommissioned at the same time, thousands of acres of industrial material would need to be recycled or disposed of. Implementation of mitigation measure UTIL-6 and similar measures for foreseeable projects would require diverting project-related nonhazardous, nonrecyclable, and nonreusable construction and operation waste to landfills with adequate capacity if local landfills are near capacity. Therefore, implementation of the proposed Project would not result in cumulatively considerable impacts related to utilities and service systems; and cumulative impacts would be less than significant.