

3.11 Public Services and Utilities

This section describes the environmental setting, regulatory setting, and potential impacts associated with the construction, operation, and maintenance of the proposed project and alternatives with respect to public services and utilities.

3.11.1 Environmental Setting

Emergency response units and facilities, schools, solid waste, wastewater, water supply facilities, and existing powerlines and pipelines in the proposed project area are described in the following sections.

3.11.1.1 Emergency Response Units and Facilities

Fire Departments

In California, the San Bernardino Fire Department, North Desert Division, services the proposed project area. Station 53 in Baker is the closest fire department to the proposed Ivanpah Substation site; the fire station is approximately 50 miles southwest of the substation (San Bernardino County 2009b). In Nevada, fire protection is provided by the Clark County Fire Department. A fire station (Station 75) is located in Searchlight, approximately 40 miles east of the proposed Ivanpah Substation site and 40 miles south of the existing Eldorado Substation. A small station (Station 87) is also located in the Town of Jean, approximately 20 miles northeast of the proposed Ivanpah Substation site (Clark County 2009b).

Police Departments

In California, the proposed project area is within the jurisdiction of the San Bernardino County Sheriff's Department. The sheriff's office nearest to the proposed Ivanpah Substation site is in Baker, approximately 50 miles southwest of the substation. The Baker sheriff's office is a small satellite office of the larger Barstow office, which is approximately 100 miles southwest of the Ivanpah Substation (San Bernardino County 2009d). The Baker sheriff's satellite office is known as a "resident post" and supports the California Highway Patrol along Interstate 15 in the Baker area (I-15; San Bernardino County 2009d; 2009e). The California Highway Patrol is the primary law enforcement agency for California highways. Its services include traffic control, accident investigation, and management of hazardous materials incidents (California Highway Patrol 2009).

In Clark County, Nevada, the Las Vegas Metropolitan Police Department services the proposed project area. The department provides law enforcement services to all of Clark County, excluding the cities of Henderson, North Las Vegas, Boulder City, and Mesquite. The Boulder City Police Department services the Boulder City Annexation, where the existing Eldorado Substation is located (Boulder City 2009). The Nevada Highway Patrol is the primary law enforcement agency for Nevada's highways (Nevada Highway Patrol 2009).

Medical Facilities

In California, the closest hospital to the proposed Ivanpah Substation site is in Barstow, more than 100 miles southwest. The Boulder City Hospital is the closest hospital to the existing Eldorado Substation in Nevada, approximately 20 miles northeast. It is the closest hospital to the proposed project area in both Nevada and California.

3.11.1.2 Schools

The proposed project area is located within the Baker Valley Unified School District (BVUSD) in California and within the Clark County School District (CCSD) in Nevada. BVUSD includes elementary, junior high, and high schools. BVUSD schools are approximately 50 miles southwest of the proposed Ivanpah Substation site (BVUSD 2009).

1 CCSD is a much larger district, with schools in Goodsprings, Searchlight, Henderson, and Boulder City. A correction-
2 center high school is located in the Town of Jean (CCSD 2009).

3.11.1.3 Solid Waste and Wastewater Facilities

Solid Waste

7 In San Bernardino County, the closest nonhazardous solid waste landfill large enough to serve the proposed project
8 is in Barstow, approximately 110 miles southwest of the Ivanpah Substation site. At present, the Barstow Sanitary
9 Landfill is permitted to accept up to 750 tons of wastes per day (600 tons of solid waste and 150 tons of liquid waste;
10 California Integrated Waste Management Board [CIWMB] 2009a). Although the current facility is nearing capacity,
11 the recently approved Barstow Sanitary Landfill Expansion Project would expand the landfill by 284 acres (San
12 Bernardino County 2009a, 2009c). According to the CEQA Findings and Final EIR for that project, the landfill will be
13 increased in size according to the actual inflow rate during expansion (San Bernardino County 2009a); however, if
14 the landfill is not expanded in time to accept wastes generated by the proposed project, the Victorville Sanitary
15 Landfill is the next closest landfill in California. It is approximately 140 miles southwest of the proposed Ivanpah
16 Substation. The Victorville Sanitary Landfill accepted approximately 980 tons of wastes per day in 2006 and 890 tons
17 of wastes per day in 2007. It is permitted to accept up to 3,000 tons of wastes per day and is not nearing capacity
18 (CIWMB 2009b).

20 In Clark County, the closest landfill with the capacity to serve the proposed project is Apex Regional Landfill,
21 approximately 65 miles northeast of the existing Eldorado Substation. The landfill has no maximum daily capacity
22 and is a Class I landfill, i.e., it is allowed to accept all types of solid non-hazardous wastes from households,
23 businesses, and industry. The estimated closure date is more than 50 years in the future (Clark County 2006).

Wastewater

26 In both California and Nevada, most facilities in the proposed project area use septic systems instead of municipal
27 wastewater systems. A wastewater treatment plant in Primm, Nevada, approximately 6 miles northeast of the
28 proposed Ivanpah Substation site processes wastewater from the casinos, restaurants, and other properties in the
29 Town of Primm (NDEP 2008). Wastewater disposal is regulated by the Lahontan Regional Water Quality Control
30 Board, Region 6, in California, and by Clark County Ivanpah Pahrump Valley, Planning Area 6, in Nevada (California
31 Environmental Protection Agency 2009, Clark County 2009a).

3.11.1.4 Water Supply

35 The proposed project would be located in the northeastern Mojave Desert region of San Bernardino County on
36 federal land administered by the BLM. The Ivanpah Valley Groundwater Basin is the primary natural water supply for
37 the area. The proposed project area would also extend across several other basins (Figure 3.8-3). Water resources
38 in this area are extremely limited. The proposed Ivanpah Substation would be near the Primm Valley Golf Club, a 22-
39 acre facility that requires irrigation.

41 The Ivanpah Valley Groundwater Basin extends from California into Nevada and is part of a larger hydrologic system
42 that includes Jean Lake Valley and much of the proposed project area in Nevada. According to the BLM (2009), most
43 water basins in southwest Clark County and the northeastern Mojave Desert region of San Bernardino County are
44 over-appropriated and new water entitlements can be difficult to obtain (see also Section 3.8, "Hydrology and Water
45 Quality"). There are no municipal water services in the proposed project area (BLM 2009).

3.11.1.5 Existing Powerlines and Pipelines

47 As discussed in Section 3.7, "Hazards, Health, and Safety," the proposed transmission line would be near or
48 immediately adjacent to the Los Angeles Department of Water and Power (LADWP) powerlines for most of its length
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1 and NV Energy powerlines for a portion of its length. Additionally, the line would cross below existing powerlines at
2 multiple locations and be near or immediately adjacent to various pipelines that transmit gasoline, diesel, jet fuel, and
3 natural gas (Clark County 2006). There are also at least three major gas pipelines buried underground in both
4 California and Nevada that may be located near the transmission right-of-way (ROW). For more details on existing
5 powerlines and pipelines in the area, see Section 3.7, "Hazards, Health, and Safety."

7 **3.11.2 Applicable Laws, Regulations, and Standards**

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9 The following section provides a summary of laws, regulations, and standards that govern public services and utilities
10 in the proposed project area.

11 **3.11.2.1 Federal**

12 **Solid Waste Disposal and Resource Conservation and Recovery Act**

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15 The Solid Waste Disposal Act of 1965 (as amended and revised by the Resource Conservation and Recovery Act
16 [RCRA] of 1976) establishes requirements for the management of solid waste. RCRA establishes provisions for the
17 design and operation of solid waste landfills. It authorizes states to carry out many functions of the act through their
18 own waste programs and laws. Title 40, Code of Federal Regulations (CFR), Chapter I, Subchapter I, Solid Wastes,
19 was established to implement the provisions of these acts.

20 **Clean Water and Water Quality Acts**

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22 The Water Pollution Control Act of 1948, amended by the Clean Water Act (CWA) and Water Quality Act, requires
23 states to set standards to protect water quality, which includes the regulation of storm water and wastewater
24 discharge during construction and operation of a facility.

25 **Occupational Safety and Health Act**

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27 The Occupational Safety and Health Act (OSHA) of 1970 (29 United States Code [USC] Section 651 et seq.)
28 mandates safety requirements in the workplace. Procedures for promulgating regulations and conducting inspections
29 to implement and enforce safety and health procedures to protect workers, particularly in the industrial sector, are
30 established in 29 CFR 1910. Federal approval of California's and Nevada's plans for enforcement of state safety and
31 health requirements is given in 29 CFR 1952 Subparts K and W (respectively).

32 **3.11.2.2 State**

33 **California Public Utilities Commission General Order 131-D**

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36 Under this General Order, the construction of powerlines designed to operate at or above 200 kilovolts (kV) and
37 substations designed to operate at or above 50 kV must be authorized by the CPUC.

38 **California Integrated Waste Management Act**

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40 The Integrated Waste Management Act of 1989 (Public Resource Code 40050), administered by the CIWMB,
41 requires all local and county governments to adopt a Source Reduction and Recycling Element to identify ways to
42 reduce the amount of solid waste sent to landfills. This law set reduction targets of 25 percent by 1995 and 50
43 percent by the year 2000.

44 **Protection of Underground Infrastructure (California)**

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46 Under California Government Code Section 4216–4216.9, anyone planning to excavate must contact the appropriate
47 regional notification center at least two working days before beginning excavation. Subsequent to this notification,
48 underground infrastructure operators are notified and required to locate and field-mark the approximate location and

1 number of subsurface installations that may be affected. The excavator is then required to determine the exact
2 location of subsurface installations that may be affected by excavating with hand tools within the area of the
3 approximate location of subsurface installations, as determined by field-marking.

4 5 **California Water Law and Permitting**

6 California's water law (California Code of Regulations [CCR] Title 23) is based on four doctrines: riparian, prior
7 appropriation, groundwater, and pueblo rights. Riparian rights result from the ownership of land bordering a surface
8 water source. Appropriative rights are acquired by putting surface water to beneficial use. The pueblo doctrine
9 recognizes Spanish or Mexican water rights.

10
11 Subterranean streams and underflow of surface waters are subject to the laws of surface waters and regulated by the
12 State Water Resources Control Board and its regional boards. The regional boards issue permits and licenses for
13 appropriation from surface and underground streams. In evaluating applications, relative benefits derived from the
14 beneficial uses, possible water pollution, and water quality are considered.

15 16 **California Building Standards Code and California Fire Code**

17 CCR Title 24 comprises 11 parts containing building design and construction requirements as they relate to fire, life,
18 and structural safety. Title 24 incorporates current editions of the International Building Code, including the electrical,
19 mechanical, energy, and fire codes applicable to the proposed project.

20 21 **Public Utilities Commission of Nevada Permitting**

22 The Nevada Utility Environmental Protection Act of 1971 (Nevada Revised Statutes [NRS] 704.820 through 704.900)
23 establishes that the construction of a utility facility designed to operate at 200 kV or more requires a permit from the
24 Public Utilities Commission of Nevada. Replacement of an existing facility with a like facility, as determined by the
25 Nevada Public Utilities Commission, however, does not constitute construction of a utility facility. Any facility that was
26 required to be permitted must thereafter be constructed, operated, and maintained in conformity with the permit and
27 any terms, conditions, and modifications contained therein.

28 29 **Nevada Recycling Standards and Solid Waste Management Plan**

30 Under NRS 444A.020, as amended, the State Environmental Commission is required to adopt standards with the
31 goal of recycling at least 25 percent of total solid waste generated within each municipality. Nevada's Solid Waste
32 Management Plan provides a description of the existing framework for solid waste management. It describes
33 governmental roles and responsibilities, statewide trends in solid waste management, assessment of Nevada's
34 municipal solid waste management systems, and solid waste management issues and future considerations.

35 36 **Excavation or Demolition Near Subsurface Installations (Nevada)**

37 Under NRS Sections 455.080–455.180, a person must not begin an excavation if the excavation is to be conducted
38 in an area that is known or reasonably should be known to contain a subsurface installation unless the appropriate
39 association for operators is notified at least two working days prior to excavation. The excavator must then work with
40 the underground infrastructure operator to mark underground infrastructure in the proposed excavation area.

41 42 **Nevada Water Law and Permitting**

43 The Nevada Water Law (NRS Chapters 533 and 534) is based on two fundamental concepts: prior appropriation and
44 beneficial use. Prior appropriation grants priority to water permits chronologically, ensuring that new water rights are
45 granted only after protection of existing water rights holders are assured. Beneficial use requires that water be put to
46 a use that benefits the people of Nevada, preventing water from being reserved for speculative purposes. Agriculture,
47 municipal uses, commercial/industrial uses, recreational uses, and mining all qualify as beneficial uses.

1 Individuals or organizations seeking water rights must file an application with the Nevada Office of the State Engineer
2 for a permit. The application must include a map prepared by a water rights surveyor that shows the points where
3 water would be accessed and used.

4 5 **3.11.2.3 Regional and Local**

6 7 **San Bernardino County General Plan**

8 The following goals and policies of the San Bernardino County General Plan associated with public services and
9 utilities are applicable to the proposed project:

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11 **Goal S 3:** The County will protect its residents and visitors from injury and loss of life and protect property
12 from fires.

13 **Policy S 3.1:** The following Peakload Water Supply System guidelines shall be met for all new development or
14 be adequately served by water supplies for domestic use and community fire protection in
15 accordance with standards as determined by the County Fire Department: (a) Limit or prohibit
16 development or activities in areas lacking water and fire fighting facilities. (b) ...

17 **Policy S 3.2:** The County will endeavor to prevent wildfires and continue to provide public safety from wildfire
18 hazards.

19 **Goal CI 11:** The County will coordinate and cooperate with governmental agencies at all levels to ensure safe,
20 reliable, and high quality water supply for all residents and ensure prevention of surface and
21 groundwater pollution.

22 **Goal CI 14:** The County will ensure a safe, efficient, economical, and integrated solid waste management
23 system that considers all wastes generated within the County, including agricultural, residential,
24 commercial, and industrial wastes, while recognizing the relationship between disposal issues and
25 the conservation of natural resources.

26 **Goal CI 17:** The County will provide adequate law enforcement facilities to deliver services to deter crime and
27 to meet the growing demand for services associated with increasing populations and
28 commercial/industrial developments.

29 **Goal D/CI 4:** The County will ensure that public services are delivered and maintained at acceptable levels,
30 even in the more rural areas of the desert.

31 32 **San Bernardino County Code for Desert Groundwater Management**

33 San Bernardino County Code Section 33.06551 requires that a permit be obtained to locate, construct, operate, or
34 maintain a new groundwater well within the unincorporated, unadjudicated desert region of San Bernardino County.
35 The permit is discretionary under CEQA. Groundwater management, mitigation, and monitoring may be required as a
36 condition of the permit.

37 38 **San Bernardino County Integrated Waste Management Plan**

39 The Integrated Waste Management Plan establishes the county's goals, policies, and programs for reducing
40 dependence on landfill solid wastes and increasing source-reduction, recycling, and reuse of products and waste in
41 compliance with the California Integrated Waste Management Act.

1
2 **Clark County Comprehensive Plan**

3 The following goals and policies of the Clark County Comprehensive Plan associated with public services and utilities
4 are applicable to the proposed project:
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6 **Policy SW 1-2.0:** Encourage programs that reduce the amount of landfill and hazardous waste generated.

7 **Policy CV 6-1.0:** Water conservation measures should be encouraged.

8 **Policy CV 6-1.1:** Development approval should be conditioned upon the availability of water resources.
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10 **3.11.3 Impact Analysis**

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12 This section defines the methodology used to evaluate impacts for public services and utilities, including CEQA
13 impact criteria. The definitions are followed by an analysis of each alternative, including a joint CEQA/NEPA analysis
14 of impacts. At the conclusion of the discussion is a NEPA impact summary statement and CEQA impact
15 determinations. For mitigation measures, refer to Section 3.11.4.
16

17 **3.11.3.1 NEPA Impact Criteria**

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19 The NEPA analysis determines whether direct or indirect effects on public services and utilities would result from the
20 project, and explains the significance of those effects in the project area (40 CFR 1502.16). Significance is defined by
21 Council on Environmental Quality regulations and requires consideration of the context and intensity of the change
22 that would be introduced by the project (40 CFR 1508.27). Impacts are discussed in proportion to their significance
23 (40 CFR 1502.2[b]). To facilitate comparison of alternatives, the significance of environmental changes is described
24 in terms of the temporal scale, spatial extent, and intensity.
25

26 In addition to the CEQA impact criteria listed below, the proposed project would have a significant effect if it would:

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 - Result in a major reduction or interruption of existing utility systems by crossing or sharing a location with
29 another utility.
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31 **3.11.3.2 CEQA Impact Criteria**

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33 The proposed project would have a significant impact if it would:

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 - a. cause substantial adverse physical impacts associated with the provision of new or physically altered
36 governmental facilities, or cause a need for new or physically altered governmental facilities, the
37 construction of which could cause significant environmental impacts, in order to maintain acceptable service
38 ratios, response times, or other performance objectives for any of these public services: (1) fire protection,
39 (2) police protection, (3) schools, (4) parks, or (5) other public facilities.
 - b. exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board;
 - c. require or result in the construction of new water or wastewater treatment facilities or expansion of existing
41 facilities, the construction of which could cause significant environmental effects;
 - d. require or result in the construction of new storm water drainage facilities or expansion of existing facilities,
42 the construction of which could cause significant environmental effects;
 - e. not have sufficient water supplies available to serve the project from existing entitlements and resources, or
43 require new or expanded entitlements;
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- f. result in a determination by the wastewater treatment provider that serves or may serve the project that it has demand in addition to the provider's existing commitments;
- g. be served by a landfill without sufficient permitted capacity to accommodate the project's solid waste disposal needs; or
- h. not comply with federal, state, and local statutes and regulations related to solid waste.

3.11.3.3 Methodology

Baseline conditions for the impact analysis were established in Section 3.11.1, "Environmental Setting," and Section 3.11.2, "Applicable Laws, Regulations, and Standards." The baseline conditions were evaluated based on their potential to be affected by construction, operation, or maintenance of the proposed project. No quantitative thresholds apply to the analysis of potential impacts on public services and utilities under CEQA or NEPA. Qualitative impact criteria are used for the analysis presented in this section.

3.11.3.4 Applicant Proposed Measures

The applicant has included the following applicant proposed measures (APMs) related to public services and utilities:

APM PUSVC-1: Work Around High Pressure Pipelines. No mechanical equipment will be permitted to operate within 3 feet of the high-pressure pipelines, and work within 3 feet must be done by hand or as otherwise directed by the pipeline company.

APM PUSVC-2: Monitoring by Pipeline Companies. A representative of applicable owners and operators of major pipeline companies must observe the excavation around or near their facilities to ensure protection and to record pertinent data necessary for operations.

APM HAZ-2: Hazardous Materials and Waste Handling Management Plan. The applicant would develop programs and policies for management of hazardous materials including a Hazardous Materials and Hazardous Waste Handling Program, Construction Stormwater Pollution Prevention Plan, and procedures for Transport of Hazardous Materials, Fueling and Maintenance of Construction Equipment, Fueling and Maintenance of Helicopters, and Emergency Release Response. This plan would be valid during project construction and operation.

APM HAZ-4: Fire Management Plan. The applicant would implement a Fire Management Plan.

APM HAZ-5: SPCCP and Hazardous Materials Business Plan. The applicant would implement a Spill Prevention, Countermeasure, and Control Plan (SPCCP) for preventing, containing, and controlling potential releases, and provisions for quick and safe cleanup and a Hazardous Materials Business Plan (HMBP) that includes hazardous waste management procedures, and emergency response procedures including emergency spill cleanup supplies and equipment. This plan would be valid during project construction and operation.

APM TRA-2: Traffic Management and Control Plans. Traffic control and other management plans will be prepared where necessary to minimize project impacts on local streets and railroad operations.

APM TRA-3: Minimize Street Use. Construction activities will be designed to minimize work on, or use of, local streets.

APM W-12: Properly Dispose of Hazardous Materials. All construction and demolition waste, including trash and litter, garbage, and other solid waste, would be removed and transported to an appropriately permitted disposal facility. Petroleum products and other potentially hazardous materials would be removed and transported to a hazardous waste facility permitted or otherwise authorized to treat, store, or dispose of such materials.

APM W-13: Identify Location of Underground Utilities Prior to Excavation. Prior to excavation, the applicant or its contractors would locate overhead and underground utility lines, such as natural gas, electricity, sewage,

1 telephone, fuel, and water lines, or other underground structures that may reasonably be expected to be
2 encountered during excavation work.

3.11.3.5 Proposed Project / Proposed Action

Emergency Response Services

7 Construction, operation, and maintenance of the new and upgraded powerlines, substations, and
8 telecommunications systems associated with the proposed project could increase demand for emergency services in
9 the proposed project area. The proposed project could create demand for fire, police, or medical response services if
10 any of the following or other emergency incidents occurred:

- 11 • Fire due to construction accident, improper disposal of waste, or equipment malfunction;
- 12 • Injury caused by construction activities;
- 13 • Spill of hazardous materials;
- 14 • Damage to an existing powerline or pipeline;
- 15 • Theft of materials or equipment; or
- 16 • Vandalism of equipment, structures, or property.

17
18 To limit potential impacts on emergency response services, the applicant would implement APM HAZ-4 (Fire
19 Management Plan) during construction, which would reduce the risk of fire due to the proposed project. Additionally,
20 the applicant would develop and implement a traffic management plan and minimize local street use during
21 construction (APM TRA-2 and APM TRA-3), which would reduce impacts on emergency response times by limiting
22 the project's contribution to traffic congestion in the area. Additionally, MM TRANS-1 requires the applicant to limit
23 construction activities on Friday from noon to 10 p.m. to avoid requiring lane closures on I-15. To further reduce
24 emergencies related to the proposed project, the applicant would be required by law to contact the appropriate
25 Underground Service Alert organization to identify the location of underground utilities and pipelines. The applicant
26 would also not use mechanical equipment within 3 feet of high-pressure pipelines (APM PUSVC-1) and would have a
27 representative for the pipelines present to observe excavation activities around buried pipelines during construction
28 (APM PUSVC-2). These requirements and APMs would help ensure that emergency response services would not be
29 affected during project construction. To further mitigate impacts to emergency response services, MM HAZ-1
30 requires that the applicant prepare a Health and Safety Plan and conduct a worker safety and environmental training
31 program. This would include the requirement that first aid kits be stored in each construction vehicle and that a
32 worker trained in first aid be included in each work group. Further discussion of potential impacts on emergency
33 response services and emergency response or evacuation plans is provided in Section 3.14, "Traffic and
34 Transportation," and Section 3.7, "Hazards, Health, and Safety."

35
36 While some incidents of theft and vandalism have occurred at the applicant's unstaffed substations, implementation
37 of the security design features proposed by the applicant would minimize potential impacts on police response
38 services during operations. Specifically, security design features—such as 8-foot-tall security fencing, barbed wire, a
39 motion-sensing system, and routine patrol of the substation and transmission and subtransmission lines (Chapter 2,
40 "Description of Proposed Project and Alternatives")—would reduce the need for police services. Although fire
41 hazards would still exist and medical emergencies and theft or vandalism could still occur, the APMs, combined with
42 additional mitigation measures as discussed above, would be adequate to minimize emergency risks associated with
43 the proposed project.

Schools

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47 The proposed project would not increase the demand for housing or induce population growth during construction,
48 operation, or maintenance. Construction workers would be expected to commute to the area or reside in the area

1 temporarily in the Desert Oasis Apartment Complex or one of several hotels in Primm, Nevada. Both the apartment
2 complex and the hotels have adequate capacity for the projected number of workers, which is a maximum of
3 approximately 200 (see Chapter 2, "Description of the Proposed Project and Alternatives," for more details). Workers
4 would not be expected to relocate their families to the area because construction would be for only 18 months.
5 Therefore, the proposed project would not increase demand for school services or facilities.

6 7 **Solid Waste**

8 Construction of the new and upgraded powerlines, substations, and telecommunications systems associated with the
9 proposed project would generate solid waste and wastewater. Solid wastes would include components being
10 replaced such as powerline towers and poles, conductor cable, and overhead ground wires; substation construction
11 waste; and excess excavation soils and materials that could not be reused or recycled. The applicant would dispose
12 of solid waste at an appropriately permitted disposal facility (APM W-12) and has stated that construction materials
13 and debris would be removed from proposed project sites and recycled or properly disposed of off site (Chapter 2,
14 "Description of Proposed Project and Alternatives"). Although the nearest landfills capable of receiving solid waste
15 from the proposed project are located more than 100 miles from some locations along the proposed project route in
16 California and Nevada, the landfills have the necessary capacity to receive solid waste generated by the project.

17
18 The proposed project would need to observe the Nevada Legislature's goal to recycle 25 percent of total solid waste
19 generated within each municipality, and in California, the proposed project would be required to comply with the
20 California Integrated Waste Management Act. During construction, the applicant has estimated that a total of 540
21 tons of waste would be created, of which approximately 400 tons (74 percent) would be salvaged or recycled and
22 approximately 140 tons (26 percent) would be disposed of in landfills; therefore, the applicant should be on track to
23 meet solid waste management requirements in both California and Nevada, and there should be adequate capacity
24 in the area to accommodate the amount of solid waste generated. Implementation of MM PUSVC-1 (see Section
25 3.11.4, below) would ensure that solid waste would be recycled to the maximum extent possible.

26 27 **Wastewater**

28 Sanitary wastewater could be generated if a permanent restroom facility were built at the proposed Ivanpah
29 Substation. Construction of a permanent restroom would entail compliance with County of San Bernardino
30 requirements for the construction and operation of sanitary waste systems. If portable or permanent self-contained
31 restrooms are used, the applicant has stated that holding tank sanitary wastewater would be disposed of by contract
32 service personnel. The physical location and type of facility would be determined during final engineering for the
33 proposed project. There would be no impact associated with an onsite septic system.

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35 Sanitary wastewater would be generated by construction workers staying at hotels in the Town of Primm; however,
36 the capacity of the wastewater treatment facility in the Town of Primm would not be exceeded, and therefore, there
37 would be no impact. Other types of wastewater are discussed in Section 3.7, "Hazards, Health, and Safety."
38 Wastewater is also discussed in Section 3.8, "Hydrology and Water Quality."

39 40 **Surface Water and Groundwater**

41 During construction of the proposed project, water would be used for dust suppression, equipment and facilities
42 cleaning, fire prevention and control, portable restrooms, and drinking. No water would be used for powerline
43 cleaning (insulator washing) because polymer insulators that do not require cleaning would be used. The applicant
44 has stated that water for dust control, restrooms, and drinking would be brought to construction sites and supplied by
45 a local vendor or agency during construction and operation of the proposed project, but the source of the water has
46 not been identified. Due to limited water resources in the area, to ensure compliance with California and Nevada
47 plans and permitting processes, and reduce the impact on local water tables, a Water Use Plan Maximum is required
48 per by MM W-2. ~~MM W-2 requires the applicant to identify quantities and sources of water to be used during each~~
49 ~~phase of the proposed project in order to identify areas where local groundwater supply and recharge could be~~
50 ~~adversely affected. MM W-2 also sets maximum water use limits for the construction and operation phases of the~~

1 | ~~proposed project.~~ Refer to Section 3.8, "Hydrology and Water Quality," for further discussion on water use and
2 | supply.
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4 | **Existing Powerlines and Pipelines**

5 | The proposed Eldorado–Ivanpah Transmission Line would be near or immediately adjacent to the LADWP
6 | powerlines for most of its length and NV Energy powerlines for a portion of its length. The proposed line would cross
7 | below existing powerlines at multiple locations. Overhead lines near or immediately adjacent to the proposed
8 | Eldorado–Ivanpah Transmission Line would be identified by the applicant (APM W-13), and it is not anticipated that a
9 | power outage would occur.
10 |

11 | The proposed Eldorado–Ivanpah Transmission Line would also be near or immediately adjacent to various pipelines
12 | that transmit gasoline, diesel, jet fuel, and natural gas (Clark County 2006). To minimize potential impacts on
13 | pipelines, the applicant would not use mechanical equipment within 3 feet of high-pressure pipelines
14 | (APM PUSVC-1). In addition, a representative from the pipelines would be present to observe excavation activities
15 | (APM PUSVC-2), and underground utility lines would be located (APM W-13) prior to construction of the proposed
16 | project. The applicant is required by law to contact the appropriate Underground Service Alert organization prior to
17 | conducting excavation activities in either California or Nevada. Pipelines and the potential for accidental release are
18 | further discussed in Section 3.7, "Hazards, Health, and Safety." With the implementation of MM PUSVC-2, there
19 | would be no impact related to interruption of existing utility systems.
20 |

21 | **NEPA Summary**

22 | Overall, impacts on emergency response services (such as fire, police, and medical services) during construction
23 | would be short term and negligible with the implementation of APM HAZ-4 (Fire Management Plan), APM TRA-2
24 | (Traffic Management and Control Plans), APM TRA-3 (Minimize Street Use), APM PUSVC-1 (Work Around High
25 | Pressure Pipelines), APM PUSVC-2 (Monitoring by Pipeline Companies), APM W-12 (Properly Dispose of
26 | Hazardous Materials), and APM W-13 (Identify Location of Underground Utilities Prior to Excavation). Implementation
27 | of MM HAZ-1, which would require the applicant to prepare a Health and Safety Plan, would further ensure that
28 | impacts to emergency response services due to the proposed project during construction are minimized. Additionally,
29 | with the implementation of MM PUSVC-2, there would be no service interruptions for existing utilities (e.g.,
30 | powerlines and pipelines).
31 |

32 | With the implementation of MM PUSVC-1, which requires the applicant to prepare a Construction Waste Disposal
33 | Plan, impacts on solid waste management in the project area would be reduced to negligible. Additionally, with the
34 | implementation of ; however, even with the implementation of MM W-2 (Water Use Plan Maximum), while the
35 | potential for adverse impacts on the water supply would be minimized, given the limited water supply in the project
36 | area, impacts on the local water table may be adverse.
37 |

38 | During operations, emergency response needs are expected to be similar to existing needs in the project area, and
39 | the applicant has included a number of security design features to ensure negligible impacts on police services due
40 | to the new Ivanpah Substation.
41 |

42 | **CEQA Significance Determinations**

43 | **IMPACT PUSVC-1:** **Emergency services needed in response to an accident or other emergency**
44 | **incident associated with the proposed project.**
45 | *Less than significant without mitigation*
46 |

47 | Although demand for emergency services may increase temporarily during construction, existing emergency service
48 | providers and facilities would be sufficient to handle any incidents that may occur. Additionally, the applicant has
49 | proposed a variety of security features as discussed above and would implement APMs such as APM HAZ-4 (Fire
50 | Management Plan), APM TRA-2 (Traffic Management and Control Plans), APM TRA-3 (Minimize Street Use), APM

1 PUSVC-1 (Work Around High Pressure Pipelines), and APM PUSVC-2 (Monitoring by Pipeline Companies), which
2 would help ensure that emergency response services would not be affected. To further mitigate impacts to
3 emergency response services, MM HAZ-1 requires that the applicant prepare a Health and Safety Plan and conduct
4 a worker safety and environmental training program. Therefore, potential impacts on fire, police, and medical
5 emergency service ratios would be less than significant, and no mitigation is required. Emergency response plans
6 are discussed further in Section 3.7, "Hazards, Health, and Safety."

7
8 **IMPACT PUSVC-2: Project construction temporarily increases water use, and project operation
9 contributes to increased long-term water consumption.**

10 *Potentially Less than significant with mitigation*

11
12 As discussed in Section 3.8, "Hydrology and Water Quality," the applicant has estimated that between 30.6 and 38.3
13 acre feet per annum would be needed for the construction phase of the transmission line. Because there is a limited
14 water supply in the proposed project area, the applicant would implement MM W-2, which requires a Water Use
15 Maximum. With the implementation of MM W-2, impacts under this criterion would be less than significant.
16 preparation of a project specific Water Use Plan, specifying the quantities and sources for all water to be used during
17 construction, operation, and maintenance of the proposed project. The Water Use Plan would also identify the source
18 and approximate quantity of water to be used for each activity, broken down by phase of the project, and for each
19 source, the plan would address the potential impact on the local aquifer. In addition, MM W-2 also sets maximum
20 water use limits for the construction and operation phases. However, because the source of the water to be used
21 during construction is currently unknown, at this point the possibility that the impact on groundwater supplies could be
22 significant must be considered. For more information on water use and consumption, specifically as it relates to the
23 potential for lowering the water table in the project area, see Impact HYDRO-2 in Section 3.8, "Hydrology and Water
24 Quality."

25
26 **IMPACT PUSVC-3: Solid waste generated during construction of the project exceeds landfill
27 requirements.**

28 *Less than significant with mitigation*

29
30 During construction, the applicant has estimated that a total of 540 tons of waste would be created, of which
31 approximately 400 tons (74 percent) would be salvaged or recycled and approximately 140 tons (26 percent) would
32 be disposed of in landfills; therefore, the applicant would be on track to meet solid waste management requirements
33 in both California and Nevada (SCE 2010b). Existing solid waste facilities have adequate capacity to accommodate
34 project-related solid wastes. With the implementation of MM PUSVC-1, potential impacts on landfills would be less
35 than significant.

36
37 **IMPACT PUSVC-4: Solid waste generated during construction of the project results in noncompliance
38 with federal, state, or local statutes, regulations, or policies.**

39 *Less than significant with mitigation*

40
41 With the implementation of MM PUSVC-1, which would ensure compliance with local policies regarding solid waste
42 management, impacts under this criterion would be less than significant.

43
44 **NO IMPACT. Require new or physically altered public facilities.** There would be no impact on schools, parks, or
45 other public facilities in the proposed project area because the increase in local population from the additional
46 workforce required for the proposed project would be temporary and relatively small (see Section 3.13,
47 "Socioeconomics, Population and Housing, and Environmental Justice"). Potential impacts on parks are further
48 discussed in Section 3.12, "Recreation."

49
50 **NO IMPACT. Wastewater exceeds requirements of the Regional Water Quality Control Board.** The discharge of
51 sanitary wastewater would not exceed the requirements of the Regional Water Quality Control Board, and there

1 would be no impact. Potential impacts associated with other types of wastewater are discussed in Section 3.8,
2 "Hydrology and Water Quality," and Section 3.7, "Hazards, Health, and Safety."

3
4 **NO IMPACT. Wastewater exceeds requirements of existing treatment facilities.** There would be no impact
5 associated with an onsite septic system, and the capacity of the wastewater treatment facility in the Town of Primm
6 would not be exceeded during construction because sufficient capacity exists for wastewater generated by the
7 construction workforce; therefore, there would be no impact under this criterion.
8

9 **NO IMPACT. Require or result in the construction of new storm water drainage facilities.** The substations
10 associated with the proposed project would not require or result in the construction of new publicly owned storm
11 water drainage facilities and therefore would have no impact. Potential impacts associated with stormwater are also
12 discussed in Section 3.8, "Hydrology and Water Quality."
13

14 **3.11.3.6 No Project / No Action Alternative**

15
16 If the proposed project is not constructed, there would be no impact on emergency response units and facilities,
17 schools, solid waste and wastewater facilities, water use, or existing utility systems.
18

19 **3.11.3.7 Transmission Alternative Route A**

20
21 Transmission Alternative Route A would reduce the length of the proposed Eldorado–Ivanpah Transmission Line by
22 approximately 1 mile and require approximately 5 miles of new ROWs. As a result, impacts on public services and
23 utilities may differ slightly but would not be substantively different from the proposed project.
24

25 **3.11.3.8 Transmission Alternative Route B**

26
27 Potential impacts under this alternative would be similar to those associated with the proposed project. Transmission
28 Alternative Route B would extend the length of the proposed Eldorado–Ivanpah Transmission Line by approximately
29 3.5 miles and require approximately 5 miles of new ROW. As a result, impacts on public services and utilities might
30 differ slightly but would not be substantively different from the proposed project.
31

32 **3.11.3.9 Transmission Alternative Route C**

33
34 Potential impacts under this alternative would be similar to those associated with the proposed project. Transmission
35 Alternative Route C would extend the length of the proposed Eldorado–Ivanpah Transmission Line by approximately
36 1.5 miles and require approximately 5 miles of new ROW. As a result, impacts on public services and utilities may
37 differ slightly but would not be substantively different from the proposed project.
38

39 **3.11.3.10 Transmission Alternative Route D and Subalternative E**

40
41 Potential impacts under these alternatives would be the same as those associated with the proposed project.
42 Transmission Alternative Route D and Subalternative E would extend the length of the proposed Eldorado–Ivanpah
43 Transmission Line by approximately 0.5 miles and require approximately 3 miles of new ROW. There would be a
44 negligible increase in the amount of solid waste generated from excavation activities and the amount of water
45 required for dust suppression and cleaning. Impacts on public services and utilities would not be substantively
46 different from the proposed project.
47

48 **3.11.3.11 Telecommunication Alternative (Golf Course)**

49
50 Potential impacts under this alternative would be similar to those associated with the proposed project. There would
51 be a moderate increase in the amount of water required for dust suppression, cleaning, and other activities. The

1 amount of solid waste from excavation activities and pole replacement would also increase. Regardless, impacts on
2 public services and utilities would not be substantively different from the proposed project.

3.11.3.12 Telecommunication Alternative (Mountain Pass)

6 Potential impacts under this alternative would be similar to those associated with the proposed project. There would
7 be a moderate increase in the amount of water required for dust suppression, cleaning, and other activities. The
8 amount of solid waste from excavation activities and pole replacement would also increase. The amount of water
9 required and solid waste generated would be slightly greater than under the Golf Course Telecommunication
10 Alternative. Regardless, impacts on public services and utilities would not be substantively different from the
11 proposed project.

3.11.4 Mitigation Measures

15 **MM PUSVC-1: Construction Waste Disposal Plan.** The applicant will prepare a Construction Waste Disposal
16 Plan for all nonhazardous wastes generated during construction of the proposed project and submit the plan to
17 the BLM and the CPUC for review and approval no less than 30 days prior to start of construction. The plan will
18 contain the following, at a minimum:

- 19 • Description of all nonhazardous solid and liquid construction wastes, including:
 - 20 – Estimated amounts to be disposed of in a landfill by weight or volume and
 - 21 – Estimated amounts that can be recycled or salvage by weight or volume;
- 22 • Recycling, salvage, and waste minimization/source reduction plans;
- 23 • Management methods to be used for each type of waste, including temporary on-site storage,
24 housekeeping and best management practices to be employed, and methods of transportation and
25 packaging; and
- 26 • Description and list of all contracts and plans made with waste contractors, landfills, and wastewater
27 treatment facilities.

28 The applicant may refer to internal salvage and waste manuals in the Construction Waste Management Plan
29 where applicable. The plan is necessary to ensure that solid waste is recycled or salvaged to the maximum
30 extent possible. In addition, the applicant would need to observe the Nevada Legislature's goal to recycle 25
31 percent of total solid waste generated within each municipality of Nevada.

32 **MM PUSVC-2: Notification of Utility Service Interruption.** If a utility service interruption is known to be
33 unavoidable, the applicant will notify by postal mail members of the public, the jurisdiction, and the service
34 providers who would be affected. The applicant will also publish notices in newspapers circulated in each
35 jurisdiction that would be affected. The postal mail and newspaper notices will specify the estimated duration of
36 each service interruption and be mailed or published no later than seven days prior to the first interruption.
37 Copies of the notices will be provided to the BLM and CPUC no later than 30 days following notification.

3.11.5 Whole of the Action / Cumulative Action

41 Below is a brief summary of information related to public services and utilities in the ISEGS Final Staff Assessment /
42 Draft Environmental Impact Statement (FSA/DEIS) prepared by the California Energy Commission (CEC) and the
43 BLM. This section focuses on differences in the ISEGS setting and methodology compared with the setting and
44 methodology discussed above for the EITP. This section also discloses any additional impacts or mitigation imposed
45 by the CEC for ISEGS.

1 Information on public services and utilities related to the ISEGS project is summarized below. The setting for the
2 ISEGS project is described, followed by summaries of methodologies used and the impact conclusions presented in
3 the CEC's FSA, Addendum, and Final Decision and the BLM's FEIS. Required conditions of certification and
4 mitigation measures are listed. Some differences between the ISEGS and EITP are noted.

5
6 The ISEGS FSA/DEIS was reviewed for impacts that are directly relevant to the public services or utilities analysis
7 presented in this EIR/EIS. Impacts, which were determined to be relevant if they related closely to the impact criteria
8 presented in Section 3.11.3 of this EIR/EIS, were identified in the following ISEGS FSA/DEIS sections:

- 9
- 10 ●6.4 Hazardous Materials Management
- 11 ●6.8 Socioeconomics and Environmental Justice
- 12 ●6.9 Soil and Water Resources
- 13 ●6.10 Traffic and Transportation
- 14 ●6.11 Transmission Line Safety and Nuisance
- 15 ●6.13 Waste Management
- 16 ●6.14 Worker Safety and Fire Protection

17
18 The ISEGS documents contain information relevant to EITP public services and utilities in various sections. The
19 ISEGS sections on hazardous materials management, transmission line safety and nuisance, and worker safety and
20 fire protection are discussed under the EITP topic "Hazards, Health, and Safety" (Section 3.7). Traffic and
21 transportation issues for ISEGS are summarized under the EITP topic of the same name (Section 3.14). Public
22 services and utilities issues discussed in the ISEGS sections on socioeconomics and environmental justice, soil and
23 water resources, and waste management are summarized below.

24 25 **3.11.5.1 ISEGS Setting**

26
27 The ISEGS project would be located less than 1 mile northwest of the proposed Ivanpah Substation in California.
28 Different types and amounts of hazardous materials would be used for the ISEGS project than the proposed EITP.
29 These differences are discussed in Section 3.7, "Hazards, Health, and Safety," of this EIR/EIS. The ISEGS project
30 setting for "Traffic and Transportation" is discussed in Section 3.14, "Traffic and Transportation," of this EIR/EIS. The
31 ISEGS project settings for "Transmission Line Safety and Nuisance" and "Worker Safety and Fire Protection" are
32 discussed in Section 3.7, "Hazards, Health, and Safety."

33 34 **Public Services**

35 Public services are discussed in Section 6.8, "Socioeconomics and Environmental Justice," of the ISEGS FSA/DEIS.
36 The setting described in the ISEGS FSA/DEIS for public services is similar to that described in this EIR/EIS with the
37 exception of three discrepancies, described below.

38
39 First, the ISEGS FSA/DEIS states that the nearest sheriff's office to the proposed ISEGS site is the Barstow Station.
40 The Barstow Station is located approximately 110 miles southwest of the proposed ISEGS project and Ivanpah
41 Substation sites. There is a closer sheriff's office in Baker, California, located approximately 50 miles southwest (see
42 Section 3.11.1.1, "Emergency Response Units and Facilities," above).

43
44 Second, the ISEGS FSA/DEIS states that the Las Vegas Police Department provides police protection services in
45 Clark County, Nevada, but it does not mention that the Boulder City Police Department services the Boulder City
46 Annexation, where the existing Eldorado Substation is located.

1 Third, the ISEGS FSA/DEIS states that the closest hospital with an emergency room to the proposed ISEGS site is
2 the Saint Rose Hospital in Henderson, Nevada. It does not mention that the Boulder City Hospital is closer to the
3 existing Eldorado Substation in Nevada (approximately 20 miles northeast).

4
5 Public services are discussed under "Socioeconomics and Environmental Justice" in the ISEGS documents. The
6 ISEGS FEIS describes a setting for public services similar to that described for the EITP in this EIR/EIS. The FEIS
7 considers San Bernardino County, California, and Clark County, Nevada, as the areas that could be affected by
8 potential population increases related to the ISEGS project.

9
10 Section 3.11.1.1 ("Emergency Response Units and Facilities") in this EIR/EIS contains some information missing
11 from the ISEGS FEIS: (1) the FEIS states that the Barstow Station is the sheriff's office closest to the ISEGS site; the
12 EIR/EIS names a closer sheriff's office in Baker, California [approximately 50 miles southwest of the ISEGS and
13 Ivanpah Substation sites; the Barstow Station is approximately 110 miles southwest]; (2) the ISEGS FEIS does not
14 include the information given in this EIR/EIS that the Boulder City Police Department services the Boulder City
15 Annexation, where the existing Eldorado Substation is located; and (3) the ISEGS FEIS states that the closest
16 hospital with an emergency room to the proposed ISEGS site is the Saint Rose Hospital in Henderson, Nevada. It
17 does not mention that the Boulder City Hospital is closer to the existing Eldorado Substation in Nevada
18 (approximately 20 miles northeast).

19 **Water, Wastewater, and Solid Waste**

20
21 Water and wastewater are discussed in Section 6.9, "Soil and Water Resources," of the ISEGS FSA/DEIS. The
22 setting described in the ISEGS FSA/DEIS for water, wastewater, and public utilities is similar to that described in this
23 EIR/EIS. The ISEGS FSA/DEIS notes, however, that there is capacity to treat additional wastewater at the Primm
24 Wastewater Treatment Plant. The additional capacity was not considered in this EIR/EIS because it was determined
25 that there would be no impact from wastewater that would be produced with the implementation of the EITP. For the
26 EITP, wastewater would be generated during dust suppression activities, equipment cleaning, and other construction
27 activities. During operations and maintenance, wastewater would be generated from equipment cleaning.

28
29 The ISEGS project would generate sanitary and process wastewater. Sanitary wastewater from sinks, showers, and
30 toilets would be processed on site by a septic and leach field system that would be located near the administration
31 building. Process water from plant floor drains, hub drains, sumps, and piping would be sent through an oil water
32 separator and then stored for later treatment and use in the steam boiler. All process water would be recycled or
33 transported to a sanitary wastewater treatment facility for disposal (BrightSource Energy Partners 2007). Hazardous
34 wastewater is discussed in Section 3.7, "Hazards, Health, and Safety," and Section 3.8, "Hydrology and Water
35 Quality."

36
37 Solid waste is discussed in Section 6.13, "Waste Management," of the ISEGS FSA/DEIS. The ISEGS project would
38 generate approximately 280 tons of non-hazardous solid wastes during construction. Non-hazardous wastes would
39 include scrap wood, concrete, steel/metal, paper, glass, scrap metals, and plastic waste (BrightSource Energy
40 Partners 2007). Hazardous wastes are discussed in Section 3.7, "Hazards, Health, and Safety." Non-hazardous solid
41 wastes that would be generated in the EITP would include old powerline poles and towers, old conductor cable, old
42 overhead ground wires, substation construction waste, and excess excavation soils and materials that could not be
43 reused or recycled.

44
45 Water and wastewater are discussed in the soil and water section of the ISEGS FEIS, and the setting described is
46 similar to that described in this EIR/EIS. The CEC Final Decision's soil and water section state that water and
47 vegetation limitations in the region result in a high need to manage water use and protect against soil erosion.
48 Stormwater flow across the project site is generally toward the east across an alluvial fan. A total of 1,726 ephemeral
49 washes were mapped in the project area. No other wetlands or waters were identified at the site.

1 The ISEGS FEIS mentions the Primm Wastewater Treatment Plant, 6 miles northeast of the project site, in Nevada.
2 The treatment plant was not noted in this EIR/EIS because wastewater produced from the EITP would not result in
3 impacts.

4
5 The ISEGS waste management sections contain information relevant to solid waste. The ESA for the project area
6 showed no recognized environmental conditions (RECs). Waste disposal facilities that could take the ISEGS
7 nonhazardous construction and operation wastes are listed in the Final Decision as the Sloan Transfer Facility in
8 Sloan, Nevada; the Apex Regional Landfill in Las Vegas, Nevada; and Barstow Sanitary Landfill in Barstow,
9 California. The Final Decision states that these facilities have demonstrated capacity to handle the ISEGS project
10 wastes.

11 **Applicable Laws, Regulations, and Standards**

12
13 The ISEGS project would be subject to all of the federal and California laws, regulations, and standards described in
14 Section 3.11.2 above but not the state or county laws, regulations, and standards for Nevada. With regard to public
15 services, the ISEGS FSA/DEIS also lists California Education Code section 17620 and California Government Code
16 Sections 65996–65997, but this EIR/EIS concludes that the EITP would have no impact on schools. Therefore, these
17 two additional codes are not expected to be relevant to the EITP.

18
19 The ISEGS FSA/DEIS does not list the California Water Law (California Code of Regulations Title 23), but it does list
20 the California Water Code. The code sets out requirements for the regional water quality control boards, including
21 rules for the Lahontan Region. It also establishes requirements for wastewater discharge. These issues are
22 addressed in Section 3.8, “Hydrology and Water Quality,” of this EIS/EIR. The California Water Law is important to
23 both the ISEGS project and the EITP because it governs the permitting process for groundwater and surface water
24 access and use.

25
26 The Protection of Underground Infrastructure requirement under California Government Code Section 4216–4216.9
27 is not listed in the ISEGS FSA/DEIS. It is important to note because it requires that anyone planning to excavate
28 must contact the appropriate regional notification center at least two working days prior to beginning excavation. This
29 process helps ensure that existing underground utilities are not damaged during construction of a project.

30
31 The ISEGS project would be subject to all of the federal and California laws, regulations, and standards described in
32 Section 3.11.2 above but not to regulations specific to Nevada. The ISEGS FEIS lists California Education Code
33 section 17620 and California Government Code Sections 65996–65997, but the EITP would have no impact on
34 schools and thus this EIR/EIS does not list those regulations. The ISEGS FEIS lists the California Water Law
35 (California Code of Regulations Title 23), specifically Division 3, Chapters 30 and 15, regarding electronic submission
36 of analytical results and discharges to land, respectively. The FEIS also lists the California Water Code. These issues
37 are addressed in Section 3.8, “Hydrology and Water Quality,” of this EIR/EIS. The ISEGS FEIS does not list the
38 California Government Code, which requires appropriate notification before beginning excavation so that existing
39 underground utilities are not damaged during construction (Section 4216–4216.9), but the EIR/EIS does.

40 **3.11.5.2 ISEGS Methodology**

41 **CEC FSA Methodology**

42
43
44 In its socioeconomics and environmental justice section, the CEC’s Final Decision lists the effects discussed in NEPA
45 and CEQA guidelines for determining whether the project would have a significant effect on socioeconomics
46 (inducing population growth, displacing people, changing revenue, overtaxing services). The worst-case scenario (all
47 three construction phases combined) was evaluated for San Bernardino County, California, and Clark County,
48 Nevada. A 6-mile radius of the project site was used to determine whether environmental justice populations were
49 present. The Final Decision states that an environmental justice screening analysis was not required because
50 densities of minority and low-income populations were beneath the 50% threshold level.

1
2 The Final Decision lists the following considerations for evaluating significance of impacts to soil and water
3 resources: alteration of drainage, increase in runoff, impedance of flood flows, violation of water quality or waste
4 discharge requirements, depletion of groundwater, and degradation of water quality.

6 **BLM FEIS Methodology**

7 Baseline conditions were established in the ISEGS FSA/DEIS with results similar to those in the EITP EIR/EIS. The
8 setting, however, was discussed under different section names. For example, public services were discussed in the
9 "Socioeconomics and Environmental Justice" section of the ISEGS FSA/DEIS. The approach used to confirm
10 information presented in the Application for Certification for the Ivanpah Solar Electric Generating System
11 (BrightSource Energy Partners 2007) was similar to the approach taken to confirm information presented in the
12 Proponent's Environmental Assessment (SCE 2009). In addition, the EITP was incorporated into the analysis
13 presented in the ISEGS FSA/DEIS.

14
15 Three areas that differ between the ISEGS FSA/DEIS and the EITP EIR/EIS for public services and utilities are noted
16 below. First, in addition to the construction, operation, and maintenance phases, the ISEGS FSA/DEIS considers
17 decommissioning. The Public Services and Utilities section of this EIR/EIS does not consider decommissioning.

18
19 Second, the ISEGS FSA/DEIS and EITP EIR/EIS differ on the use of mitigation to ensure compliance with applicable
20 laws. The ISEGS FSA/DEIS states, "Absent any unusual circumstances, staff considers project compliance with
21 LORS [laws, ordinances, regulations, and standards] to be sufficient to ensure that no significant impacts would
22 occur as a result of project waste management" (CEC and BLM 2009, p. 6.13-7). For this EITP EIR/EIS, laws are
23 considered to be required and, therefore, compliance with applicable laws is not included as mitigation.

24
25 Baseline conditions were established in the ISEGS FEIS with results similar to those described in the EITP EIR/EIS,
26 but topics were discussed under different section names. For example, public services were discussed in the
27 socioeconomics and environmental justice section of the ISEGS FEIS. The approach used to confirm information
28 presented in the AFC for the ISEGS was similar to the approach taken to confirm information presented in the PEA
29 for EITP. In addition, the EITP was incorporated into the analysis presented in the ISEGS FEIS. Only the ISEGS
30 FEIS considers decommissioning; the EITP EIR/EIS does not.

31
32 For socioeconomic impacts, the FEIS used a methodology similar to that used in the CEC documents, described
33 above. For soil resources, the FEIS notes that existing regulations, as well as BMPs and DESCPs, address most
34 potential impacts for most projects, but that monitoring of flash flood damage and sedimentation and erosion rates
35 would be required because modeling assumptions for these conditions could be incorrect due to the unprecedented
36 size of the project for this type of location. For water resources, the FEIS states that the BLM evaluated the same
37 potential effects mentioned above under CEC methodology.

39 **3.11.5.3 ISEGS Impacts**

40
41 BLM and CEC staff determined that construction and operation of the ISEGS project could impact public services
42 and utilities. Where impacts were identified, the BLM and CEC incorporated mitigation measures to reduce potential
43 impacts on public services and utilities to less than significant levels.

45 **Hazardous Materials**

46 The ISEGS FSA/DEIS concludes that, with mitigation, hazardous materials associated with the ISEGS project would
47 not present a significant CEQA or NEPA impact on the public or environment. With implementation of a Hazardous
48 Materials Business Plan (HAZ 2), Safety Management Plan (HAZ 3), Construction Site Security Plan (HAZ 4), and
49 Operation Security Plan (HAZ 5), potential impacts associated with hazardous materials on public services in the

1 ISEGS project area would be reduced to less than significant levels. Hazardous materials are further discussed in
2 Section 3.7, "Hazards, Health, and Safety," of this EIR/EIS.

3 4 **Public Services**

5 The ISEGS FSA/DEIS concludes that no significant adverse impacts on public services would occur as a result of
6 construction or operation of the ISEGS project. No mitigation measures associated with public services or
7 socioeconomic issues were included in the ISEGS FSA/DEIS. Socioeconomic issues related to public services are
8 further discussed in Section 3.13, "Socioeconomics, Population and Housing, and Environmental Justice," of this
9 EIR/EIS.

10 11 **Water Resources**

12 The ISEGS FSA/DEIS concludes that, with mitigation, water resources would not be significantly impacted under
13 CEQA or NEPA. Ensuring that regulations related to groundwater wells (SOIL&WATER 3), the San Bernardino
14 County's Desert Groundwater Management Ordinance (SOIL&WATER 6), regulations on collection and recycling of
15 process wastewater (SOIL&WATER 7), and regulations on septic systems (SOIL&WATER 8) are followed and
16 limiting construction water use to 100 acre feet per year (SOIL&WATER 4) would reduce potential impacts on water
17 resources to less than significant levels. Soil resources are discussed in Section 3.6, "Geology, Soils, Minerals, and
18 Paleontology," of this EIR/EIS. Water resources are further discussed in Section 3.8, "Hydrology and Water Quality."

19 20 **Traffic and Transportation**

21 The ISEGS FSA/DEIS concludes that, with mitigation, traffic and transportation resources would not be significantly
22 impacted under CEQA or NEPA. A number of mitigation measures were incorporated into the ISEGS FSA/DEIS to
23 reduce the ISEGS project's contribution to congestion on I-15 near recreation resources, ensure damaged roadways
24 are repaired, and ensure glare does not impair the vision of motorists or pilots. The analysis of potential traffic and
25 transportation impacts in the ISEGS FSA/DEIS is further discussed in Section 3.14, "Traffic and Transportation," of
26 this EIR/EIS.

27 28 **Transmission Line Safety**

29 The ISEGS FSA/DEIS concludes that, with mitigation, issues related to transmission line safety would not result in
30 significant impacts under CEQA or NEPA. The potential for nuisance shocks would be minimized through grounding
31 and other field reducing measures that would be implemented in keeping with standard industry practices and with
32 implementation of the mitigation measures documented in the ISEGS FSA/DEIS. These field reducing measures
33 would maintain the generated fields within levels not associated with radio frequency interference or audible noise.
34 The analysis of transmission line safety presented in the ISEGS FSA/DEIS is further discussed in Section 3.7,
35 "Hazards, Health, and Safety," of this EIR/EIS.

36 37 **Waste Management**

38 The ISEGS FSA/DEIS concludes that, with mitigation, issues related to waste management would not result in
39 significant impacts under CEQA or NEPA. A number of mitigation measures were incorporated into the ISEGS
40 FSA/DEIS to ensure that the ISEGS project would comply with applicable waste management laws, ordinances,
41 regulations, and standards. The analysis of waste management presented in the ISEGS FSA/DEIS is further
42 discussed in Section 3.7, "Hazards, Health, and Safety," and Section 3.8, "Hydrology and Water Quality," of this
43 EIR/EIS.

44 45 **Worker Safety and Fire Protection**

46 The ISEGS FSA/DEIS concludes that, with mitigation, issues related to worker safety and fire protection would not
47 result in significant impacts under CEQA or NEPA. Mitigation measures were incorporated into the ISEGS FSA/DEIS
48 to ensure adequate levels of industrial safety and compliance with applicable laws, ordinances, regulations, and

standards. With implementation of the mitigation measures, a Construction Safety and Health Program and Operations and Maintenance Safety and Health Program would be developed and implemented (WORKER SAFETY 1 and WORKER SAFETY 2), a Construction Safety Supervisor would be provided (WORKER SAFETY 3), and a portable automatic external defibrillator would be kept on site during construction of the ISEGS project (WORKER SAFETY 5). Worker safety and fire protection is further discussed in Section 3.7, "Hazards, Health, and Safety," of this EIR/EIS.

CEC Impact Conclusions

The CEC's Final Decision states (in its socioeconomics and environmental justice section) that impacts on population and on housing and related services would be negligible, and thus that the project would not result in significant adverse impacts on schools or other public resources. Overall, construction and operation of the ISEGS project would not result in any direct, indirect, or cumulative significant adverse socioeconomic impacts, and implementation of all conditions of certification would ensure compliance with all relevant LORS. The document noted employment and revenue benefits from the project and agreed with the applicant's statement that the project would not result in any disproportionate impacts to environmental justice populations.

In the soil and water discussion, the Final Decision indicated that expected water recharge would exceed the pumping by existing and future projects. BMPs, the SWPPP, and the Drainage, Erosion, and Sedimentation Control Plan (DESCP) required by conditions of certification would avoid significant erosion and sedimentation, maintain water quality, protect air quality, control stormwater, and minimize impacts to groundwater to less than significant. The ISEGS project, with conditions of certification, would comply with all applicable LORS; overall, it would not result in any unmitigated, significant project-specific or cumulative adverse impacts to soil or water resources.

The Final Decision (waste management section) states that the amount of waste generated during construction would be minor with implementation of source reduction and recycling. Operations would generate 240 tons per year of nonhazardous solid wastes. Disposal of project wastes would not result in any significant direct, indirect, or cumulative impacts on existing waste disposal facilities.

3.11.5.4 Conditions of Certification / Mitigation Measures

The ISEGS FSA/DEIS recommends that the following Conditions of Certification be required by the CEC and the BLM to lessen impacts to public services and utilities if the project is approved:

HAZ 2 requires the applicant to develop and implement a Hazardous Materials Business Plan to notify local emergency response services of the amounts and locations of hazardous materials associated with the ISEGS project.

HAZ 3 requires the applicant to develop and implement a Safety Management Plan for the delivery of liquid hazardous materials.

HAZ 4 requires the applicant to develop and implement a site-specific Construction Site Security Plan applicable to all construction phases.

HAZ 5 requires the applicant to develop and implement a site-specific Operation Security Plan.

SOIL&WATER-3 requires the applicant to ensure compliance with state and local laws, ordinances, regulations, and standards during construction of the onsite groundwater wells.

1 **BLM Impact Conclusions**

2 **Construction Impacts**

3 The FEIS socioeconomics section states that no direct impacts would occur to population levels, employment,
4 housing, police service levels, or hospital facilities. For soil and water, the FEIS concludes that soil loss during and
5 after construction would be mitigated by SOIL&WATER-1 and -2. SOIL&WATER-3 would ensure compliance with
6 regulations. With BMPs and compliance with regulations, there would be no direct, adverse impact from construction-
7 generated wastewater. The Mitigated Ivanpah 3 Alternative would result in substantially less soil erosion from grading
8 (with acreage requiring grading reduced by 88%) than would the proposed project, and active drainage pathways
9 acreage would also be reduced, by approximately 9%. Water usage and potential groundwater use conflicts would be
10 reduced by this alternative. The wells would be farther from the golf course wells and thus would be less likely to
11 affect them, but overall the alternative would not change potential water use impacts.

12
13 For waste management, disposal of solid wastes generated during ISEGS construction would not adversely affect
14 the capacity of the three potential disposal facilities.

15
16 **Operational Impacts**

17 The FEIS states that no impacts to existing population levels, or adverse impacts to the study area population or
18 employment base, would result from the proposed project operation. Tax revenues and employment impacts would
19 be beneficial. Because there would be no population increase, there would be no increased demand for public
20 services such as police protection, schools, and hospitals. The school impact fee required for the ISEGS project
21 because of the administration/storage building would be beneficial to schools. The Mitigated Ivanpah 3 Alternative
22 would reduce the tax benefits by approximately 17%.

23
24 In the soil and water section, the FEIS states that the BLM's analysis confirms the applicant's determination that
25 there would be no net sediment loss or gain. Effects of erosion and stormwater flow would be mitigated through
26 SOIL&WATER-1, -2, and -5. There would be no impacts to current groundwater users, and current and future
27 pumping in the basin would not result in overdrafting of the groundwater basin such that the beneficial uses would be
28 impacted. The quality of the water would likely be only minimally impacted, and use of groundwater would comply
29 with applicable laws and regulations. There would be no direct, adverse impact to any other beneficial use or users of
30 the groundwater. The Mitigated Ivanpah 3 Alternative would have reduced potential for impacts related to stormwater
31 because the area with the largest potential for those impacts would be eliminated. Water used for heliostat washing
32 would be reduced by 19%.

33
34 The waste management section of the FEIS indicates that the 240 tons per year of non-hazardous solid wastes
35 expected from ISEGS project operation would be recycled or sent to a disposal facility.

36
37 **Decommissioning Impacts**

38 The socioeconomics section of the FEIS states that impacts from decommissioning would be similar to impacts from
39 construction. The project closure would require many of the same resource protection plans as required for
40 construction; thus, no direct, adverse impacts to soil and water resources would be anticipated. Waste management
41 would comply with regulations and mitigation measures, so it would not result in any impacts.

1
2 **3.11.5.4 ISEGS Mitigation Measures/Conditions of Certification**

3
4 **CEC Conditions of Certification**

5 Conditions of certification relevant to sections discussed above are summarized below. See “Hazards, Health, and
6 Safety (Section 3.7) and “Traffic and Transportation” (Section 3.14) for other conditions of certification relevant to
7 public services and utilities.

8
9 SOCIO-1 requires the projects owner to pay a school development fee of at least \$3,195.

10
11 SOIL&WATER 1 requires an approved DESCPC and specifies details.

12
13 SOIL&WATER 2 requires compliance with discharge requirements and requires an approved SWPPP.

14
15 SOIL&WATER-3 requires construction and operation of up to two onsite groundwater wells and specifies compliance
16 with related regulations.

17
18 SOIL&WATER-4 requires the applicant to limit construction groundwater use to 100-200 acre-feet per year (AFY)
19 during construction and 100 AFY during operations.

20
21 SOIL&WATER-5 requires heliostats to be designed and installed to withstand stormwater scour and specifies
22 testing, analysis, modeling, and reporting. It also requires a Stormwater Damage Monitoring and Response Plan.

23
24 SOIL&WATER-6 requires the applicant to comply a Groundwater Level Monitoring and Reporting Plan consistent
25 with the San Bernardino County Desert Groundwater Management Ordinance. This includes developing a
26 groundwater level monitoring and reporting plan and integrating with the Primm Valley Gold Course’s existing
27 groundwater monitoring and reporting program.

28
29 SOIL&WATER-7 requires the applicant to ensure that the collection and recycling of process wastewater would be
30 managed in compliance with applicable laws, ordinances, regulations, and standards. LORS.

31
32 SOIL&WATER-8 requires the applicant to comply with County of San Bernardino and other requirements for the
33 construction and operation of sanitary waste septic systems.

34
35 TLSN 3 requires that ROW of the proposed transmission line be kept free of combustible material as required under
36 the provisions of Section 4292 of the Public Resources Code and Section 1250 of Title 14 of the California Code of
37 Regulations.

38
39 WASTE-1, 2, 4, and 7 pertain specifically to hazardous wastes, discussed in Section 3.7, “Hazards, Health, and
40 Safety.”

41
42 TLSN 4 requires that all permanent metallic objects within the ROW of lines related to the ISEGS project be
43 grounded according to industry standards regardless of ownership.

44
45 TRANS 1 requires the applicant to develop and implement a Traffic Control Plan for construction and operation
46 traffic.

47
48 TRANS 2 requires the applicant to restore all public roads, easements, and ROW damage during construction of the
49 ISEGS project.

1 WASTE-3 requires the applicant to develop and implement a Construction Waste Management Plan for all
2 construction wastes.

3
4 WASTE-5 requires the project owner to notify the CPM and Authorized Officer of any impending waste management-
5 related enforcement action.

6
7 WASTE-6 requires the applicant to develop and implement an Operation Waste Management Plan for all wastes
8 generated during operation of the ISEGS project.

9
10 WORKER SAFETY 1 requires the applicant to develop and implement a Project Construction Safety and Health
11 Program.

12
13 WORKER SAFETY 2 requires the applicant to develop and implement a Project Operations and Maintenance Safety
14 and Health Program.

15
16 WORKER SAFETY 3 requires the applicant to provide a site Construction Safety Supervisor.

17
18 WORKER SAFETY 5 requires the applicant to keep a portable automatic external defibrillator on site during
19 construction of the ISEGS project.

20 **BLM Mitigation Measures**

21
22 The BLM mitigation measures related to public services and utilities are the same as the conditions of certification
23 listed above and included by reference to other sections, except that no mitigation measures were identified for
24 socioeconomic resources, as the FEIS states that no direct, adverse socioeconomics impacts would occur as a result
25 of the proposed ISEGS.

26 **3.11.6 Combined Impact of EITP and ISEGS**

27
28
29 The CEQA and NEPA EITP and ISEGS impact analyses for public services and utilities were based on similar
30 significance criteria that evaluated to what extent the proposed projects would impact acceptable levels of service for
31 fire protection, law enforcement, schools, and hospitals; result in the construction of new or expanded storm water
32 drainage facilities; require new or expanded water entitlements; be served by landfills with sufficient capacity; or
33 comply with statutes and regulations related to solid waste.

34
35 Impacts were evaluated according to each of these criteria in the Public Services and Utilities and Hydrology and
36 Water Quality sections of the EITP EIR/EIS and in multiple sections of the ISEGS FSA/EIS, including: Section 6.8,
37 "Socioeconomics and Environmental Justice," Section 6.9, "Soil and Water Resources," Section 6.13, "Waste
38 Management," and Section 6.14, "Worker Safety and Fire Protection." The analyses for both projects also evaluated
39 wastewater treatment impacts, but the ISEGS FSA/EIS did not list a specific impact criteria to address wastewater
40 impacts. The ISEGS FSA/EIS did not evaluated to what extent the proposed project would result in a reduction or
41 interruption of existing utility systems by crossing or sharing a location with another utility, but no impact with regard
42 to utility service outages is anticipated during construction or operation of the ISEGS project.

43
44 The EITP would not increase the demand for housing or induce population growth during construction, operation, or
45 maintenance. Construction workers would be expected to commute to the area or reside in the area temporarily.
46 During construction, approximately 540 tons of waste would be generated, of which approximately 74 percent would
47 be recycled and 26 percent disposed of in landfills. Sanitary wastewater could be generated if a permanent restroom
48 facility were built at the proposed Ivanpah Substation. The wastewater generated during construction would be
49 allowed to percolate/evaporate onsite. Maximum water use would be 40,000 gallons per day during construction
50 (between 30.6 and 38.3 acre feet per year). The water would be supplied by existing wells at the Molycorp Mine

1 Mountain Pass facility. Water would not be used during operations. The proposed project route would cross below
2 existing powerlines at multiple locations and near several pipelines.

3
4 For the ISEGS project, the required construction and operational labor force would reside within the study area and
5 no population increase would occur during construction or operation. Approximately 280 tons of solid waste would be
6 generated during construction and 240 tons per year during operations. A septic system for sanitary wastewater
7 would be located at the administration building/operations and maintenance area. Process wastewater from all
8 equipment during operations, including the boilers and water treatment equipment, would be treated and recycled.
9 Reject streams from water treatment would be trucked off site for treatment or disposal at a waste facility as
10 appropriate. All water for construction and operations would be drawn from one of two wells constructed for the
11 project. Up to 194,000 gallons of water would be used daily for dust suppression, vehicle washing, and worker use
12 during Phase 3 of the project and 99,333 during Phases 1 and 2. Approximately 76.4 acre feet of water per year
13 would be used during operations.

14
15 The CPUC concluded that EITP impacts on the demand for public services would be less than significant and that
16 there would be no impact on wastewater treatment plants or storm water drainage facilities (Section 3.11.3.5,
17 "Proposed Project / Proposed Action," "CEQA Significance Determinations"). To limit potential impacts on emergency
18 response services, the applicant would implement a Fire Management Plan (APM HAZ-4), implement a Traffic
19 Management Plan (APM TRA-2), minimize local street use during construction (APM TRA-3), and implement a
20 Health and Safety Plan (MM HAZ-1). Mitigation measures that require a Construction Waste Disposal Plan (MM
21 PUSVC-1) and a water use maximum (MM W-2) would reduce impacts on landfills and water resources to less than
22 significant levels. Pipelines near the proposed project route and locations where powerlines would be crossed would
23 be identified by the applicant (APM W-13), and the applicant's APMs would help ensure that service interruptions do
24 not occur (APM PUSVC-1 and PUSVC-2). If interruptions are expected to occur, the applicant would notify the public
25 (MM PUSVC-2).

26
27 The CEC concluded that the ISEGS project would have no impact on police or school services. With conditions of
28 certification including project construction and operations safety and health programs, a fire prevention plan, weed
29 control measures, and the availability of an onsite defibrillator, impacts on fire and medical emergency response
30 services would be less than significant. Construction and operations waste management plans will be developed as
31 conditions of certification to ensure waste is recycled and reduce impacts from the disposal of solid waste to less
32 than significant levels. The CEC concluded that BMPs, the SWPPP, and the Drainage, Erosion, and Sedimentation
33 Control Plan required as conditions of certification would reduce erosion and sedimentation, help maintain water
34 quality, control storm water, and minimize impacts on groundwater. Conditions of certification regarding the location
35 of groundwater wells, maximum water use, groundwater monitoring, and water reuse would reduce impacts on water
36 resources to less than significant levels (Section 3.11.5.3, "ISEGS Impacts," "CEC Impact Conclusions").

37
38 The BLM concluded that impacts on emergency response services (such as fire, police, and medical services) during
39 construction and operation of the EITP would be short term and negligible with the APMs noted above. Impacts from
40 the disposal of solid waste, the generation of wastewater, and water use would be negligible with mitigation (Section
41 3.11.3.5, "Proposed Project / Proposed Action," "NEPA Summary"). Similarly, the BLM concluded that with mitigation,
42 the ISEGS project would not adversely affect emergency response services, and impacts from the disposal of solid
43 waste, the generation of wastewater, and water use would be negligible during construction, operations, and
44 decommissioning (Section 3.11.5.3, "ISEGS Impacts," "BLM Impact Conclusions").

45
46 Together, impacts from the two projects would have combined impacts on fire protection services and from the
47 disposal of solid waste and from water use. Both projects will take measures to reduce impacts on fire protection
48 services that would reduce their combined impact to less than significant or negligible levels. Both projects will also
49 be required to recycle. For solid waste that cannot be recycled, the local and regional landfills have more than
50 enough capacity to accept the amount of waste estimated to require disposal from the two projects. Although the
51 combined impact from water use for the two projects has the potential to be adverse, MM PUSVC-C-1, in addition to

1 | the measures listed in the preceding paragraphs, would further reduce impacts from water use during construction of
2 | the EITP. MM PUSVC-C-1 requires the applicant to demonstrate to the BLM and CPUC that the water supplier has
3 | an adequate supply such that the existing local public and private water usages are not altered. See also Section
4 | 5.3.10.4, "Cumulative Impact Analysis," for a discussion of cumulative impacts associated with public services and
5 | utilities.