

## 4.21 Cumulative Impacts

This section analyzes the potential cumulative impacts related to the IC Project.

The California Environmental Quality Act (CEQA) requires lead agencies to consider the cumulative impacts of proposals under their review. Section 15355 of the CEQA Guidelines defines cumulative impacts as “two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.” According to Section 15130(a)(1), a cumulative impact “is the impact on the environment which results from the incremental impact of the action when added to other past, present and reasonably foreseeable future actions regardless of what agency or person undertakes such other actions.” The cumulative impacts analysis “would examine reasonable, feasible options for mitigating or avoiding the IC Project’s contribution to any significant cumulative effects” (Section 15130(b)(3)).

Section 15130(a)(3) also states that an environmental document may determine that a project’s contribution to a significant cumulative impact would be rendered less than cumulatively considerable, and thus not significant, if a project is required to implement or fund its fair share of mitigation measure(s) designed to alleviate the cumulative impact.

In conducting a cumulative impacts analysis, the proper frame of reference is the temporal span and spatial areas in which the IC Project would cause impacts. In addition, a discussion of cumulative impacts must include either:

- a list of past, present, and probable future projects, including, if necessary, those outside the lead agency’s control; or
- a summary of projections contained in an adopted general plan or related planning document, or in a previously certified Environmental Impact Report (EIR), which described or evaluated regional or area-wide conditions contributing to the cumulative impact, provided that such documents are referenced and made available for public inspection at a specified location (Section 15130(b)(1)).

The term “probable future projects” includes: approved projects that have not yet been constructed; projects that are currently under construction; projects requiring an agency approval for an application that has been received at the time a Notice of Preparation (NOP) is released; and projects that have been budgeted, planned, or included as a later phase of a previously approved project (Section 15130(b)(1)(B)(2)). A listing of projects meeting these criteria within approximately 1 mile of the IC Project Alignment are listed in Table 4.21-1: Cumulative Projects within 1 Mile, along with an identification number, a brief description, the jurisdiction in which it is located, distance from the IC Project Alignment, status, and anticipated construction schedule. These projects are also depicted in Figure 4.21-1, Cumulative Projects.<sup>20</sup>

<sup>20</sup> SCE’s Transmission Infrastructure Replacement Program is an ongoing effort focused on identifying and replacing aged and/or deteriorated subtransmission poles across SCE’s service territory to address safety and/or reliability risk. Deteriorated poles have been identified along the subtransmission lines included in the IC Project. To date, approximately four poles have been identified along Segment 1, approximately 140 poles are identified along Segment 3N, and approximately 100 are identified along Segment 3S. In Segment 3N, 38 of these poles have been incorporated in the IC Project, and in Segment 3S, 31 of the poles have been incorporated in the IC Project.

The following subsections discuss whether—when combined with past, present, planned, and probable future projects in the area—the IC Project could result in significant short-term or long-term environmental impacts. Short-term impacts are generally associated with construction of the IC Project and cumulative projects, while long-term impacts are those that result from permanent IC Project features or operation and maintenance of the cumulative projects. No material changes in operation and maintenance activities are anticipated with implementation of the IC Project, and therefore with the exception of aesthetics, there would be no cumulative long-term impacts generated by the IC Project.

**Table 4.21-1: Cumulative Projects within 1 Mile**

Project	Description	Location	Distance	Status	Anticipated Schedule
IC 1-1: Olancho Cartago 4 Lane Project	Convert approximately 12.6 miles of US 395 from a two-lane conventional highway into a four-lane expressway from post mile 29.2 to post mile 41.8 in Inyo County.  The controlled-access four-lane divided expressway will pass west of Olancho and the Los Angeles Aqueduct. Once the alignment crosses Olancho Creek, the proposed project will cross the Los Angeles Aqueduct and continue north through Cartago along the existing highway to meet up with the four-lane section of U.S. Highway 395 to the north of Cartago. The northbound and southbound lanes would be separated by a 100-foot-wide unpaved median	Inyo County	<1 mile	In design	2020-2022
IC 1-2: Cartago Area Wildlife project	The Cartago Area Wildlife project (post mile 37.7) is located along the western fringe of the Owens Lake bed and directly east of Cartago. California Fish and Wildlife with assistance from Caltrans is proposing to develop the site to support future biological mitigation needs. This would be accomplished by improving the 31.9-acre parcel through stream restoration, levee repair, dredging of existing ponds and wetlands to increase their areas, installation of plantings, and other modifications to improve the riparian, wetland, and desert scrub habitats on the site.	Inyo County	<1 mile	Planning	Post-2022
IC 1-3: RB Inyokern Solar Project Phase 1 and 2	Construction and operation of a solar facility and associate infrastructure to generate a combined 32 MW or renewable electrical energy and/or energy storage capacity.	Kern County	<1 mile	NOP	Unknown
IC 1-4: Haiwee Geothermal Leasing Area	Evaluate the feasibility and potential environmental impacts of opening for lease approximately 22,805 acres of federal mineral estate for geothermal energy exploration and development.	Inyo County	0	DEIS	Unknown
IC 1-5: North Haiwee Dam No. 2	Construction of North Haiwee Dam No. 2 (new Dam or NHD2) to the north of the existing Dam to improve the seismic reliability of North Haiwee Reservoir in the event NHD is damaged by an earthquake event.	Inyo County	<1 mile	DEIR/EA	Unknown

**Table 4.21-1: Cumulative Projects within 1 Mile**

Project	Description	Location	Distance	Status	Anticipated Schedule
IC 1-6: Owens River Water Trail Project	The proposed project would provide recreational access to a 6.3-mile section of the newly rewatered, 62-mile Lower Owens River. The goal of the proposed project is to develop facilities for recreational users to enter and exit the river and allow unimpeded navigation for non-motorized watercrafts, such as kayaks, standup paddle boards, and canoes. Currently, sections of the ORWT corridor are non-navigable due to the channel being partially or fully obstructed by vegetation and other obstructions that emerged during a 90 year dry period. In order to establish the ORWT for non-motorized water craft, the proposed project would remove these obstructions by manual and machine methods.	Inyo County	0	In preparation	Unknown
IC 1-7: Control Substation Project	Modernization and upgrading of SCE's Control Substation.	Inyo County	0	In Planning	2020-2021
IC 2-1: SR-58 Kramer Junction Expressway	This project proposes to widen the roadway to accommodate 4 lanes of Expressway on State Route 58 (SR-58), in the County of San Bernardino, near the Kern County line to 7.5 miles east of (E/O) US Highway 395. This project involves the realignment of the roadway and will provide a grade separation for the railroad (RR) crossing.	San Bernardino County	0	In construction	2017-2020
IC 2-2: Kramer Storage Area	To provide storage area for materials excavated during SR-58 Kramer Junction Expressway project.	San Bernardino County	0	In use	2017-2020
IC 3N-1: Lynx Cat Mountain Quarry	The Lynx Cat Mountain quarry is an existing and vested surface mining operation. Purpose of project is to re-establish use of the quarry as a borrow pit to support construction of the SR-58 Hinkley Expressway Project.	San Bernardino County	<1 mile	Active	2017-2020
IC 3S-1: US Hwy 395 Widen Median & Shoulder and Install Rumble Strips	Caltrans is proposing to improve a portion of US 395, from one mile south of Kramer Hills to the intersection of US 395 and SR-58 by widening the existing roadbed to provide a 4-foot median buffer and 8-foot shoulders, and install rumble strips on the centerline and shoulders. The proposed project, in a portion of unincorporated San	San Bernardino County	0	In construction	Unknown

**Table 4.21-1: Cumulative Projects within 1 Mile**

Project	Description	Location	Distance	Status	Anticipated Schedule
IC 3S-2: Kelly Cutover	Bernardino County, California, would also restore the passing lanes on the northbound side of US 395 within the proposed project limits, and eliminate all existing passing zones within the proposed project limits that are not consistent with current design standards. The purpose of the proposed project is to improve safety, reducing the number and severity of cross centerline collisions.	San Bernardino County	<1 mile	Permitting	Unknown
IC 4-1: Daggett Solar Power Facility	Project includes construction and operation of a solar energy generation and storage Project on approximately 3,500 acres east of Daggett, CA in San Bernardino County. The proposed project would be a photovoltaic solar (PV) energy facility with associated on-site substations, inverters, fencing, roads and supervisory control and data acquisition (SCADA) system of up to 650 Megawatts (MW). The Project would also include up to 450 MW of energy storage and an overhead power line, referred to as a generation tie line (gen-tie line).	San Bernardino County	<1 mile	Permitting	Unknown
IC 4-2: Baker Substation Expansion	Project includes the physical expansion of the existing Baker Substation, including installation of new subtransmission- and distribution-voltage equipment and structures. The substation will be expanded, reconfigured as a ringbus, and a MEER will be installed. Telecommunications cable will also be installed.	San Bernardino County	<1 mile	Engineering	2021
IC 4-3: Halloran Springs Communication Site Lease	Installation of cellular communications tower and site.	San Bernardino County	<1 mile	Permitting	Unknown

Sources:

BLM. e-planning website  
 Caltrans. District 8—San Bernardino Projects Webpage. Available at <http://www.dot.ca.gov/d8/>  
 Caltrans. District 9—Bishop Projects Webpage. Available at <http://www.dot.ca.gov/d9/projimgt/projects.html>  
 Caltrans. 2017. Olancha-Cartago Olancha/Four-Lane Project FEIR. Available at [http://www.dot.ca.gov/d9/projects/olancha/docs/signed/olancha\\_FEIR.pdf](http://www.dot.ca.gov/d9/projects/olancha/docs/signed/olancha_FEIR.pdf)  
 San Bernardino County. Desert Region Environmental Review Webpage. Available at <http://cms.sbcounty.gov/lus/Planning/Environmental/Desert.aspx>

### 4.21.1 Aesthetics

As discussed in Section 4.1, the IC Project would have no impact on a scenic vista, and thus would not contribute to a cumulative impact.

The IC Project would have a less than significant impact on scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State Scenic Highway. There are no cumulative projects identified in the vicinity of where the IC Project alignment crosses SR-168 or along US 395, which are designated State Scenic Highways; therefore, the IC Project would not contribute to a cumulative impact on scenic resources visible from a State Scenic Highway.

As presented in Section 4.1, the IC Project would have a less than significant impact to the existing visual character or quality of the site and its surroundings. The IC Project proposes the replacement of existing electrical infrastructure, and thus represents only an incremental change to an existing viewshed. Numerous cumulative projects are located within 1 mile of the IC Project Alignment; potential cumulative effects on the visual character or quality of a site and its surroundings are most likely where one or more projects may be viewed, as landscape detail is most noticeable and objects generally appear most prominent when seen at this distance or nearer. The cumulative projects within 1 mile of the IC Project Alignment generally include modifications to existing roadways and other infrastructure, environmental restoration/improvement projects, the installation of large new infrastructure such as the new dam at Haiwee Reservoir, the new solar photovoltaic projects proposed in Inyokern and Daggett, and the expansion of the existing Baker Substation.

Impacts to the existing visual character or quality of the site and its surroundings have been identified as significant for project IC 2-1; the installation of replacement electrical infrastructure in this area would result in a less than significant impact, and thus would not contribute to a cumulatively significant impact. The impacts from projects IC 1-3 and IC 4-1 have been identified in scoping documents as potentially significant, but have not been fully evaluated. The installation of replacement electrical infrastructure in these areas would result in a less than significant impact, and thus would not be expected to contribute to a cumulatively significant impact. Other cumulative projects within 1 mile of the IC Project alignment, including the expansion of the Baker Substation (project IC 4-2), would have either no or less-than-significant impacts to the existing visual character. The installation of replacement electrical infrastructure under the IC Project in these areas would result in a less than significant impact, and thus would not contribute to a cumulatively significant impact.

The IC Project would have a less than significant impact in terms of glare and new sources of light; therefore, no contribution to cumulative glare- or light-related impacts are expected.

### 4.21.2 Agriculture and Forestry Resources

As presented in Section 4.2, the IC Project would result in no impacts for all agriculture and forestry-related CEQA criteria; therefore, the IC Project would not contribute to any cumulative impact.

### 4.21.3 Air Quality

As presented in Section 4.3, the IC Project would have less than significant impacts with the implementation of APM AIR-1. Therefore, construction of the IC Project would not result in a cumulatively considerable net increase of a criteria pollutant. The IC Project's less than significant impacts in terms of creating objectionable odors and exposing sensitive receptors to substantial pollutant concentrations would not contribute to a cumulative impact: because the odors and pollutant concentrations disperse rapidly with distance, and because few (if any) of the identified cumulative

projects would overlap the IC Project’s construction work in time or space and in proximity to a potential receptor, the IC Project would not contribute to any cumulative impact.

#### **4.21.4 Biological Resources**

The geographical area evaluated for cumulative impacts on biological resources includes areas directly affected by construction as well as adjacent habitat potentially affected by construction activities. The geographical extent of the cumulative impact analysis also includes federal and state-regulated jurisdictional wetlands and other waters of the U.S.

Construction could affect plant, amphibian, reptilian, avian, and mammalian species identified as candidate, sensitive, or special-status species, and cumulative projects listed in Table 4.21-1 would have the potential for similar effects where those projects’ activities occur in the presence or habitat of these species. As discussed in Section 4.4, all impacts associated with the IC Project would be reduced to a less-than-significant level with the implementation of APMs. Because impacts to sensitive species and habitats during construction would be temporary and intermittent in nature (lasting only as long as construction work at a given site) and would be limited in their potential geographic scope, and localized, and because few (if any) of the identified cumulative projects would overlap the IC Project’s construction work in time or space, and because the cumulative projects would be expected to adhere to federal and state regulations promulgated for the protection of sensitive species, no cumulatively considerable impact to sensitive species or their habitats would be anticipated.

The small area of sensitive natural communities that would be permanently impacted would not result in a significant contribution to any cumulatively considerable impact to these communities and would not reduce the overall availability of these habitats.

The IC Project would result in both temporary and permanent impacts to wetlands. Compliance with applicable state and federal regulations (including Section 404 and 401 of the Clean Water Act) and compliance with applicable permit conditions would reduce wetland impacts to less than significant. Few (if any) of the projects identified in Table 4.21-1 would result in impacts to wetlands, and thus no cumulatively considerable impact to wetlands is anticipated.

No component of the IC Project would result in permanent interference to the movement of any species. Construction activities would be temporary, transient, and would affect only small, geographically-dispersed areas at any one time; these construction activities would not interfere substantially with the movement of any migratory wildlife species, although construction activities may interfere with the movement of individual animals. The cumulative projects also would have localized footprints and would not be expected to affect species movement within the region. For example, no new highways, levees, or other major infrastructure is planned. Therefore, no cumulatively considerable impact is anticipated.

IC Project construction and operation would not conflict with any local policies or ordinances protecting biological resources, including trees. Cumulative projects would be expected to comply with local policies, ordinances, and the conditions of applicable permits. Therefore, the IC Project’s contribution to any cumulative impact would not be cumulatively considerable and would be less than significant.

No Habitat Conservation Plans; Natural Community Conservation Plans; or other approved local, regional, or state habitat conservation plans exist for the IC Project area. Therefore, the IC Project would not contribute to a cumulative impact involving conflicts with adopted natural resource plans.

#### **4.21.5 Cultural Resources**

Text is under development, pending the results of a technical report.

#### **4.21.6 Energy**

As presented in Section 4.6, the IC Project would result in no impacts under all energy-related CEQA criteria; therefore, the IC Project would not contribute to any cumulatively considerable impact.

#### **4.21.7 Geology and Soils**

Geological hazards are generally site-specific and depend on localized geologic and soil conditions. The geographic scope of potential cumulative geological and soils impacts is limited to the immediate vicinity around each IC Project construction and infrastructure site. As a result, they are not typically additive or cumulative in nature. In addition, cumulative projects would be expected to comply with applicable laws, regulations, ordinances, and permits, and would be expected to implement BMPs and SWPPPs where applicable. Therefore, the IC Project's contribution to any cumulative impacts would not be cumulatively considerable and would be less than significant.

#### **4.21.8 Greenhouse Gas Emissions**

The geographical context for GHG and climate change effects includes the earth's atmosphere. GHGs released to the atmosphere generally have no effect locally but are correlated with rising global temperatures.

As presented in Section 4.8, IC Project construction would result in emissions of GHGs from on-site construction equipment and off-site worker trips. Over the entire construction period of the IC Project, approximately 15,046 MTCO<sub>2</sub>e would be emitted. GHG construction emissions from the IC Project amortized over 30 years is approximately 502 MTCO<sub>2</sub>e. The 502 MTCO<sub>2</sub>e emissions associated with IC Project construction would be well below the 25,000 MTCO<sub>2</sub>e threshold of significance established by the EKAPCD. Therefore, the IC Project would not generate, either directly or indirectly, GHG emissions that would have a significant impact on the environment. As a result, the IC Project's contribution to any cumulative impacts would not be cumulatively considerable and would be less than significant.

As presented in Section 4.8, GHG emissions from construction of the IC Project would fall well below the established numerical threshold of significance. Therefore, the IC Project would not conflict with any applicable plan, policy, or regulation and would have a less than significant contribution to cumulative impacts resulting from any cumulative project's conflict with such plans, policies, or regulations.

#### **4.21.9 Hazards and Hazardous Materials**

The geographic scope for hazardous materials includes areas near IC Project sites that could be affected by a release of hazardous materials, including schools within 0.25 miles. Impacts from such releases are usually site-specific and localized. The geographic scope also includes areas affected by the cumulative projects listed in Table 4.21-1 including downgradient air, water bodies, groundwater, and areas subject to wildland fire hazards. Materials delivery routes are also included to account for the potential impacts from a traffic accident-related spill.

There is no existing significant adverse cumulative condition relating to hazards and hazardous materials in the vicinity of the IC Project, and the incremental and less than significant impacts of the IC Project would not cause a significant adverse cumulative impact.

The IC Project would be constructed on a site listed as a hazardous materials site pursuant to Section 65962.5; however, as identified in Section 4.9 impacts would be less than significant, and the less-than-significant impacts would not contribute to any cumulative impact as no cumulative projects are identified to occur proximate to IC Project activities on this site.

The IC Project would be constructed within an airport land use plan area, and within the vicinity of, and within 2 miles of, a public airport, public use airport, or private airstrip; however, as identified in Section 4.9 impacts would be less than significant, and the less-than-significant impacts would not contribute to any cumulative impact as no cumulative projects are identified to occur in these locations contemporaneous with the IC Project.

The IC Project would not interfere with an adopted emergency response plan or emergency evacuation plan, and therefore would not contribute to a cumulative impact.

IC Project construction would result in less than significant impacts associated with the transport, use, disposal, or foreseeable upset of, or accidents involving, hazardous materials during construction. Cumulative projects would be expected to implement BMPs and adhere to all applicable laws and regulations to reduce to less than significant the potential impacts from hazards, including impacts associated with emissions or handling of hazardous or acutely hazardous materials, substances, or waste within 0.25 miles of an existing or proposed school.

The potential for igniting vegetation would be minimized through the measures presented in Section 4.9. The cumulative projects would be expected to implement similar measures. Therefore, construction of the IC Project would have a less than significant impact to risk of loss, injury, or death involving wildland fires, and the IC Project's contribution to any cumulative impacts would not be cumulatively considerable and would be less than significant.

#### **4.21.10 Hydrology and Water Quality**

The geographic context for the cumulative impacts associated with hydrology and water quality consists of the watersheds and groundwater basins presented in Section 4.10. The IC Project presents no impacts related to risk associated with tsunamis or seiches, and only incremental, less than significant impacts related to groundwater withdrawals, water quality standards, flooding and flood hazards, alteration of drainage patterns, and stormwater drainage systems. Many of these potential incremental impacts are negligible (i.e., impacts to groundwater) or specific to the immediate vicinity of the construction locations (i.e., alteration of drainage patterns). Due to the distance between the cumulative projects and the IC Project locations, the incremental and less than significant effects that may result from the IC Project would not, in combination with effects generated by cumulative projects, result in a cumulatively considerable impact.

#### **4.21.11 Land Use and Planning**

As presented in Section 4.11, the IC Project would result in no impacts under the land use and planning-related CEQA criteria; therefore, the IC Project would not contribute to any cumulative impact.

#### **4.21.12 Mineral Resources**

As presented in Section 4.12, the IC Project would result in no impacts under all mineral resources-related CEQA criteria; therefore, the IC Project would not contribute to a cumulative impact.

#### **4.21.13 Noise**

Noise and vibration impacts are localized such that the geographic area in which cumulative impacts may occur is limited to the immediate vicinity of construction activities. None of the cumulative projects are expected to be conducted in a similar timeframe in close proximity to the IC Project, and therefore there would be no cumulative noise- or vibration-related impacts during construction.

#### **4.21.14 Population and Housing**

As presented in Section 4.14, the IC Project would result in no impacts under the population and housing-related CEQA criteria; therefore, the IC Project would not contribute to any cumulative impact.

#### **4.21.15 Public Services**

The geographic scope for potential impacts on public services encompasses the local jurisdictions providing public services including Inyo, Kern, and San Bernardino counties as well as the City of Barstow.

IC Project construction would not result in an increased demand for police or fire services; an increase in school enrollment; or an increase in the use of libraries, parks or other public facilities. Therefore, the IC Project would have no contribution to any cumulative impacts.

#### **4.21.16 Recreation**

As presented in Section 4.16, the IC Project would result in no impacts under all recreation-related CEQA criteria; therefore, the IC Project would not contribute to a cumulative impact.

#### **4.21.17 Transportation and Traffic**

The geographic scope for cumulative transportation and traffic impacts includes the regional and local roadways that may be used to access the IC Project or that could otherwise be impacted by construction of the IC Project. The geographic scope also includes the bus routes and pedestrian and bike paths in the area.

Based on the number of daily vehicle trips generated during construction, and the implementation of APM TRA-1, the IC Project would not create any inconsistency or conflict with an applicable plan, ordinance or policy that establishes measures of effectiveness, and therefore would not contribute to a cumulative impact in this regard.

Project construction would not change air traffic patterns or locations. SCE would implement FAA recommendations regarding the installation of marker balls, to the extent feasible. Helicopter operations would be conducted in accordance with FAA regulations per APM TRA-2. Few of the cumulative projects would likely include any air transportation, and therefore the IC Project would not result in cumulative impacts to air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.

The IC Project would not introduce incompatible uses or design features such as changes to public roads. Therefore, the IC Project would not contribute to any cumulative impact involving hazards due to a design feature or incompatible uses.

In combination with the fact that construction activities would be of short duration and performed in remote and largely-uninhabited areas, implementation of traffic control measures per APM TRA-1 would ensure that the IC Project does not result in inadequate emergency access, even considering the effects of

cumulative projects. Like SCE, cumulative projects would be expected to implement traffic control measures where feasible. Therefore, the IC Project would have no contribution to any cumulative impacts.

#### **4.21.18 Tribal Cultural Resources**

Text is under development, pending the results of a technical report.

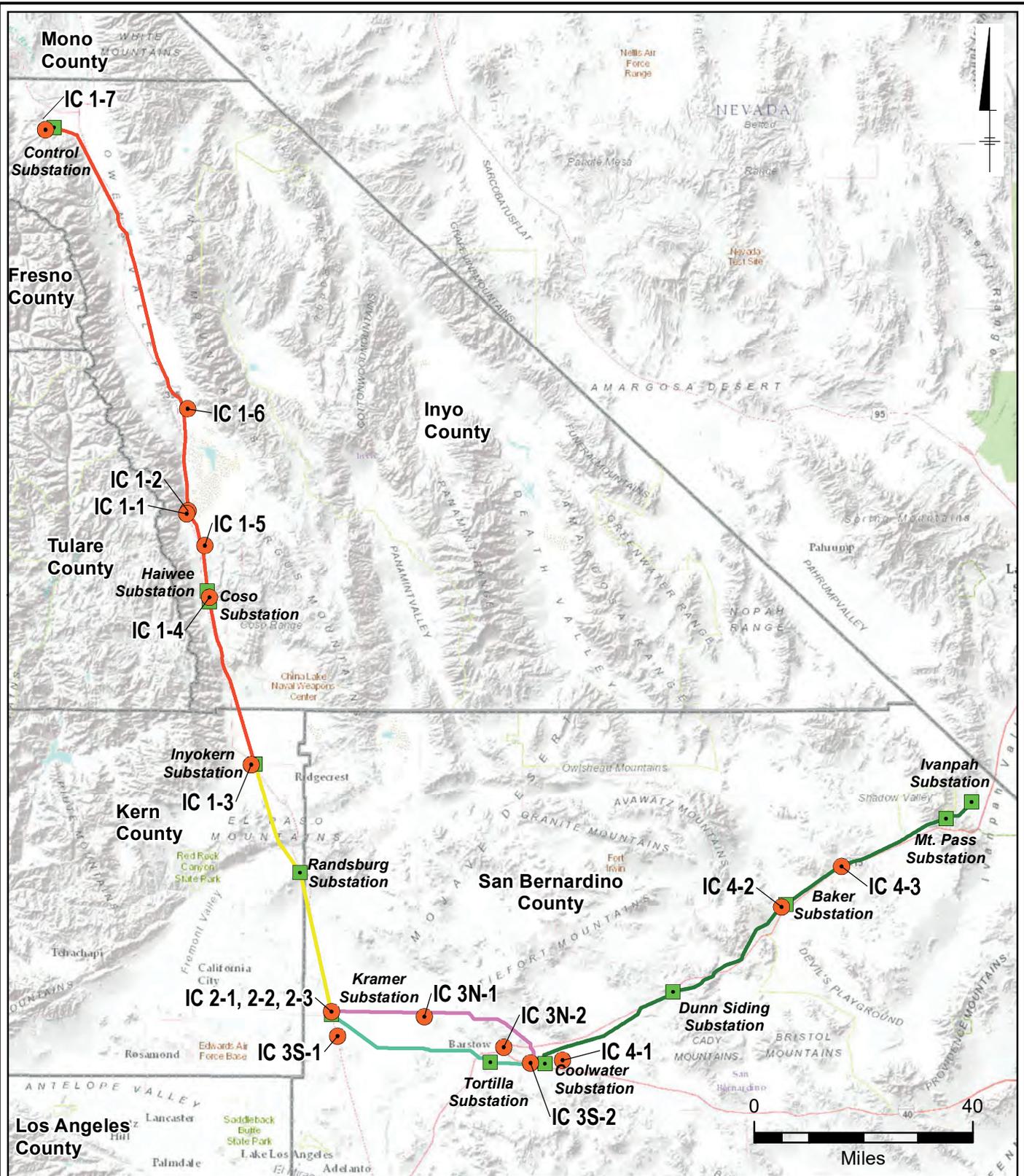
#### **4.21.19 Utilities and Service Systems**

As presented in Section 4.19, the IC Project would result in no impacts under all utilities and service systems-related CEQA criteria; therefore, the IC Project would not contribute to any cumulative impact.

#### **4.21.20 Wildfire**

As presented in Section 4.20, the IC Project would result in no or less than significant impacts under all wildfire-related CEQA criteria. Given that few of the cumulative projects temporally or spatially overlap the IC Project, and that the less than significant impacts in terms of impairing an adopted emergency response plan or emergency evacuation plan and exposing people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes are inherently site-specific and geographically confined, the IC Project would not contribute to any cumulative impact.

Page intentionally left blank.



### Legend

- Substation
- Cumulative Projects
- County
- Segment 1
- Segment 2
- Segment 3N
- Segment 3S
- Segment 4

<b>IVANPAH-CONTROL PROJECT</b>	
<b>CUMULATIVE PROJECTS</b>	
<b>ARCADIS</b>	<b>FIGURE: 4.21-1</b>