

## **III.23 SOCIOECONOMICS AND ENVIRONMENTAL JUSTICE**

This chapter describes the laws and regulations that govern socioeconomic and environmental justice issues. It also describes the existing environment within the Bureau of Land Management's (BLM) Land Use Plan Amendment (LUPA) Decision Area, which encompasses the entire Desert Renewable Energy Conservation Plan (DRECP) boundary. Existing conditions for the DRECP area are presented regarding socioeconomics (including community workforce, available housing, and fiscal status of counties) and environmental justice (including data on existing minority and low-income communities). Appendix R1.23 provides supporting information for this chapter, specifically two maps and one table. The maps illustrate the locations of census tracts identified as containing minority and low-income populations relevant to environmental justice, and the table presents baseline demographic data used in the environmental justice analysis presented in Chapter IV.23.

### **III.23.1 Regulatory Setting**

#### **III.23.1.1 Federal**

##### **Executive Order 12898**

In 1994 President Clinton issued the Executive Order, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, to focus federal attention on environmental and human health conditions in minority and low-income communities. EO 12898 promotes nondiscrimination in federal programs that substantially affect human health and the environment, and it provides information access and public participation relating to these matters. This order requires federal agencies (and state agencies receiving federal funds) to identify and address any disproportionately high or adverse human health or environmental effects of their programs, policies, and activities on minority and/or low-income populations. The Council on Environmental Quality (CEQ) oversees federal compliance with EO 12898.

##### **Council on Environmental Quality's Environmental Justice Guidance Under the National Environmental Policy Act**

To ensure that environmental justice concerns are effectively identified and addressed according to EO 12898, the CEQ, in consultation with the Environmental Protection Agency (EPA), developed guidance to assist federal agencies to implement procedures. According to the CEQ's "Environmental Justice Guidance Under NEPA," agencies should consider the composition of affected areas to determine whether minority or low-income populations are affected by a proposed action, and, if so, whether those environmental effects may be disproportionately high or adverse (CEQ 1997).

According to the CEQ environmental justice guidelines, minority populations should be identified if:

- A minority population percentage either exceeds 50% of the population of the affected area, or
- If the minority population percentage of the affected area is meaningfully greater than the minority population percentage in the general population or other appropriate unit of geographic analysis (e.g., a governing body's jurisdiction, neighborhood census tract, or other similar unit).

### **Environmental Protection Agency Final Guidance for Incorporating Environmental Justice Concerns in EPA's Compliance Analyses**

EPA's "Final Guidance for Incorporating Environmental Justice Concerns in EPA's Compliance Analyses" defines how EPA will ensure that disproportionately high and adverse human health or environmental effects on minority communities and low-income communities are identified and addressed. It establishes agencywide goals for engaging American Indian, Alaska Native, and other indigenous peoples (e.g., Native Hawaiian). It also establishes agencywide goals for environmental protection and lists actions the EPA would take to incorporate environmental justice into its mission (EPA 1998).

### **Environmental Protection Agency Plan Environmental Justice 2014**

EPA's Plan Environmental Justice (EJ) 2014 is a strategy to help the agency integrate environmental justice into its programs, policies, and activities. Plan EJ 2014 identifies Cross-Agency Focus Areas, Tools Development, and Program Initiatives as the three essential elements that will advance environmental justice across the EPA and other agencies of the federal government. Plan EJ 2014 is not yet a rule or regulation; it is a strategy to help integrate environmental justice into EPA's day to day activities (EPA 2011).

### **Bureau of Land Management Land Use Planning Handbook, Appendix D**

The DRECP area includes the following BLM field office jurisdictions:

- Bakersfield
- Ridgecrest
- Barstow
- Needles
- Palm Springs–South Coast
- El Centro

Appendix D (Social Science Considerations in Land Use Planning Decisions) of the BLM Land Use Planning Handbook provides guidance on integrating social science information into the planning process for projects within BLM lands. Any information gathered for planning purposes must be considered in the context of BLM's legal mandates. To be effective, social scientific data and methods identified in Appendix D must be integrated into the entire planning process (BLM 2005). Furthermore, Section IV (Environmental Justice Requirements) of Appendix D provides guidance for assessing potential impacts on population, housing, and employment as they relate to environmental justice. It also describes variables such as lifestyles, beliefs and attitudes, and social organizations with respect to environmental justice.

### **III.23.2 Social and Economic Conditions**

This section describes existing social and economic conditions in the DRECP area within the overall LUPA Decision Area. The affected environment comprises the overall environmental setting against which the Proposed LUPA's effects are considered and ultimately judged. These terms therefore signify a discussion of existing conditions with respect to socioeconomic resources and environmental justice populations. This section uses best-available recent data to establish those existing socioeconomic resource conditions in environmental justice populations.

This chapter features a different format than other chapters in this volume because socioeconomic and demographic resources are typically evaluated with both quantitative and qualitative demographic data and social factors. The information presented here is organized to best support a combination quantitative and qualitative programmatic methodology based on various socioeconomic factors (community workforce, available housing, fiscal status of counties, etc.).

The DRECP area is contained within parts of seven California counties: Imperial, Inyo, Kern, Los Angeles, Riverside, San Bernardino, and San Diego. BLM administers about 10 million acres of land within the DRECP area. In presenting existing conditions of socioeconomic resources in environmental justice populations, unique considerations create differing "study area" boundaries for each socioeconomic resource area. For example, the study area for employment serving the DRECP area extends beyond the boundary. This is because some construction personnel will come from outside the DRECP area to work on future renewable projects within the boundary. However, the study area for temporary housing serving construction workers is within the DRECP, as workers would seek temporary housing proximate to work locations. Section III.23.2.1 discusses individual socioeconomic resources and the assumptions used to define each applicable study area. Following the identification of these study areas, available and representative existing (and when available, forecasted) demographic data are presented.

### III.23.2.1 Socioeconomic Study Areas

While BLM administers about 10 million acres of land within the DRECP area, population and socioeconomic attributes primarily occur outside of BLM-administered lands (where little population exist and established communities do not occur). Therefore, this analysis presents socioeconomic conditions for all lands within the DRECP area (including private land), as BLM LUPA decisions would affect the social and economic conditions of communities in the areas surrounding BLM-administered lands.

Due to the size of the DRECP area, this chapter uses the terms “regional” and “localized” programmatic study areas when referring to the geographic extent of socioeconomic resources and environmental justice populations. For example, Riverside County is considered a regional study area, and the city of Blythe (contained within Riverside County) is a localized study area. For environmental justice demographics, the local study area is further reduced to the U.S. Census Tract level. Regional and local study areas are not defined boundaries but are population centers with associated socioeconomic-specific resources. This distinction is important because of geography, the nature of the resource, and because the demographics of a local study area may be different from the region itself. These study areas are separate from ecoregion subarea boundaries (see Section III.23.5). Each socioeconomic and environmental justice resource (e.g., population, housing) therefore has study areas in tandem with the overall environmental setting. Some socioeconomic study areas also extend outside the DRECP (e.g., employment).

To determine whether the Proposed LUPA would promote either population growth or otherwise affect existing housing availability, this analysis considers both existing and planned population growth, the availability of the local workforce, and housing conditions in the DRECP area. It is assumed that all construction and operations workers will either permanently or temporarily reside within the regional (counties) and local (cities and communities) study areas to work on renewable energy projects to be built and operated within the DRECP area. Based on this assumption, the regional study area for population growth and housing demand (due to worker in-migration) would be the seven counties containing in the DRECP area.

Future renewable energy and infrastructure projects within the western portion of the DRECP area would be near the cities of Los Angeles and San Diego, and projects along the eastern DRECP area boundary would be near the Las Vegas and western Arizona areas. These cities are outside of the DRECP area, but some construction workers will likely come from these adjacent cities. These major metropolitan outlying areas, as well as those within the DRECP area, are therefore included within the employment study area and within both the regional and local study areas for workforce existing conditions.

To better define the localized socioeconomic study area, those incorporated cities and communities within the DRECP area with a population of 10,000 or more are identified. While some construction workers may stay in smaller communities, these larger incorporated areas would likely provide the most opportunity for vacant and temporary housing and living amenities. This programmatic analysis does not exclude considering potential impacts to smaller rural communities with populations less than 10,000. However, socioeconomic baseline condition data is not presented or analyzed in detail at this smaller level (due to the larger programmatic nature of this document). Such smaller localized and site-specific analyses, when applicable, would occur during supplemental project-level environmental reviews. See Chapter IV, Section IV.23.1.1.3, Future Project-Specific Analyses, for more information.

To define existing public finance conditions, this section focuses on counties and major landholders within the DRECP area. Future renewable energy and necessary infrastructure projects within the DRECP boundary could directly affect the tax revenue of these counties, BLM, and other lands under federal jurisdiction. Similar to employment, the larger regional study area is also considered the local study area in terms of public finance.

The BLM has determined that October 15, 2013, is the baseline date for this Final Environmental Impact Statement (EIS) (see Section III.1.3.3). The baseline includes more than 50 renewable energy projects within the DRECP area that are planned, approved, or being constructed (as listed in Appendix O). Therefore, it is likely that these projects are already influencing temporary population growth, available workforce and housing, and local economies as discussed in Sections III.23.2.2 through III.23.2.5. Individual environmental impact assessments have already been conducted for a number of the baseline projects identified in Appendix O.

### **III.23.2.2 Population**

Table III.23-1 summarizes the current and forecasted population trends for all seven counties and the local study area cities within the DRECP boundary. As shown, significant growth is forecasted for all seven counties. No localized population centers are located within either Inyo or San Diego counties, based on the small amount of land these counties have within the DRECP boundary.

**Table III.23-1  
2013 Population Profile and Projections for the DRECP Area**

Area	2013 Population	2020 Projected Population	2030 Projected Population	2040 Projected Population
<i>Imperial County, CA</i>	180,061	222,920	259,339	294,585
Brawley	25,906	N/A	N/A	N/A
Calexico	40,493	N/A	N/A	N/A
El Centro	44,327	N/A	N/A	N/A
Imperial	166,148	N/A	N/A	N/A
<i>Inyo County, CA</i>	18,573	19,350	20,428	22,009
<i>Kern County, CA</i>	857,882	1,057,440	1,341,278	1,618,681
California City	13,150	N/A	N/A	N/A
Ridgecrest	28,348	N/A	N/A	N/A
Tehachapi	13,313	N/A	N/A	N/A
<i>Los Angeles County, CA</i>	9,958,091	10,441,441	10,950,335	11,243,022
Lancaster	158,630	N/A	N/A	N/A
Palmdale	154,535	N/A	N/A	N/A
<i>Riverside County, CA</i>	2,555,059	2,593,211	3,046,064	3,462,256
Blythe	19,606	N/A	N/A	N/A
<i>San Bernardino County, CA</i>	2,076,274	2,273,017	2,626,945	2,988,648
Adelanto	31,289	N/A	N/A	N/A
Apple Valley	70,436	N/A	N/A	N/A
Barstow	23,168	N/A	N/A	N/A
Hesperia	91,400	N/A	N/A	N/A
Twentynine Palms	26,084	N/A	N/A	N/A
Victorville	120,368	N/A	N/A	N/A
Yucca Valley	21,030	N/A	N/A	N/A
<i>San Diego County, CA</i>	3,150,178	3,333,995	3,530,896	3,749,240

N/A= Data unavailable.

Source: California Department of Finance 2013a and 2013b

### III.23.2.3 Housing

Table III.23-2 summarizes year 2013 housing unit availability for all seven counties within the DRECP area and the local study area cities within. As shown, the regional study area contains a high number of housing units though vacancy rates fluctuate significantly within each localized area.

**Table III.23-2  
2013 Housing Profile of the DRECP Area Regional and Local Study Areas**

Area	Total Housing Units	Vacancy Units (Vacancy Rate)
<i>Imperial County, CA</i>	56,524	6,952 (12.3%)
Brawley	8,248	610 (7.4%)
Calexico	10,791	540 (5.0%)
El Centro	14,547	1,382 (9.5%)
Imperial	5,017	366 (7.3%)
<i>Inyo County, CA</i>	9,491	1,433 (15.1%)
<i>Kern County, CA</i>	288,624	30,017 (10.4%)
California City	5,226	1,113 (21.3%)
Ridgecrest	12,088	1,160 (9.6%)
Tehachapi	3,622	428 (11.8%)
<i>Los Angeles County, CA</i>	3,463,382	204,339 (5.9%)
Lancaster	52,334	4,867 (9.3%)
Palmdale	46,680	3,594 (7.7%)
<i>Riverside County, CA</i>	812,234	116,149 (14.3%)
Blythe	5,472	958 (17.5%)
<i>San Bernardino County, CA</i>	704,540	88,068 (12.5%)
Adelanto	9,235	1,302 (14.1%)
Apple Valley	28,259	2,713 (9.6%)
Barstow	9,632	1,474 (15.3%)
Hesperia	29,009	2,582 (8.9%)
Twentynine Palms	9,651	1,303 (13.5%)
Victorville	37,427	4,192 (11.2%)
Yucca Valley	9,583	1,284 (13.4%)
<i>San Diego County, CA</i>	1,174,866	77,541 (6.6%)

N/A= Data unavailable.

Source: California Department of Finance 2013b

### Short-Term Temporary Housing

It is assumed that utility-scale renewable energy project construction workers will affect both long- and short-term housing demand within the DRECP area (III.23.2.1). Table III.23-2 shows all housing, including owner-occupied and rental units. Based on the physical distribution of population centers within the DRECP area, the primary focuses of housing demand are Riverside, San Bernardino, and Imperial counties. This determination is because these counties contain most of the DRECP area, are in areas with high solar potential, and workers seeking temporary housing would be close enough to work on local renewable energy projects. A significant percentage of these three counties also contain

BLM-administered lands. Given the size of the DRECP boundary and these three key counties, it is assumed that a high number of short-term temporary housing units (hotels, motels, and recreational vehicle parks) occur under existing conditions. Due to the commercial nature of this type of short-term temporary housing and the overall size of the DRECP area, accurate data regarding the total number of hotel/motel rooms and RV spaces are not available.

The BLM operates campgrounds throughout the DRECP area. Except for areas with specific camping regulations, vehicle camping is allowed anywhere on BLM-administered land within 300 feet of any posted open route (BLM 2012a). There is a 14-day limit for camping in any one location. After 14 days, campers wishing to stay in the area longer are required to move 25 miles from their original campsite. Long-term camping is available by permit in visitor areas on BLM lands, but because these areas are for recreational use only, workers would not be permitted to live in these areas (BLM 2012a).

#### **III.23.2.4 Employment**

Table III.23-3 summarizes years 2008-2018 and 2010-2020 projections of employment by industry type within each Metropolitan Statistical Area (MSA) serving the DRECP area. MSAs are geographic entities defined by the U.S. Office of Management and Budget. Each MSA contains a core urban area of 50,000 or more and comprises one or more counties, including counties containing the core urban area, as well as adjacent counties with a high degree of social and economic integration (as measured by commuting and employment) with the urban core (U.S. Census Bureau 2012a). These areas define both the regional and local study areas for employment. As shown, the study area yields an impressive workforce; a high number of skilled workers are therefore anticipated for renewable energy projects and infrastructure construction and operation.

#### **III.23.2.5 Public Finance**

##### ***III.23.2.5.1 Bureau of Land Management***

In 2012, the BLM's national budget was \$1.1 billion, which supported 10,609 full-time equivalent staff. The majority of the BLM budget supports the management of lands and resources. Major funding sources come from oil and gas permit processing funds, recreation fees, and miscellaneous permanent payments. The BLM is one of a handful of agencies that raises more than four times its operating budget in outside fees. With a budget of \$1.1 billion, BLM-managed public lands generated nearly \$5.7 billion in 2012.

**Table III.23-3  
 Employment Profile of DRECP Regional Study Areas**

<b>Regional Study Area</b>	<b>Year 2008 or 2010: Total Workforce</b>	<b>Year 2008 or 2010: Construction Occupations</b>	<b>Year 2008 or 2010: Electrical Infrastructure Operations</b>	<b>Year 2018 or 2020: Projections Total Workforce</b>	<b>Year 2018 or 2020: Projections Construction Occupations</b>	<b>Year 2018 or 2020: Electrical Infrastructure Operations</b>	<b>Year 2013: Unemployment by County (%)</b>
Imperial County, CA (El Centro MSA): 2008-2018	64,900	2,350	600	70,500	2,640	630	24.2
Inyo County, CA (Eastern Sierra MSA): 2008-2018	17,310	1,220	100	18,690	1,240	110	7.5
Kern County, CA (Bakersfield MSA): 2010-2020	299,600	26,340	2,020	355,300	32,920	2,310	12.1
Los Angeles County, CA (Los Angeles MSA): 2010-2020	4,246,700	196,480	8,780	4,904,300	225,140	9,110	9.3
Riverside and San Bernardino counties, CA (Riverside–San Bernardino–Ontario MSA): 2010-2020	1,253,300	80,470	2,210	1,460,000	88,280	2,400	9.6 (Riverside) 9.6 (San Bernardino)
San Diego County, CA (San Diego–Carlsbad–San Marcos MSA): 2010-2020	1,360,100	102,420	2,160	1,619,900	123,700	2,460	7.0
Clark County, NV (Las Vegas MSA): 2010-2020	842,544	54,678	3,775	938,273	63,807	4,211	9.6

**Table III.23-3  
 Employment Profile of DRECP Regional Study Areas**

<b>Regional Study Area</b>	<b>Year 2008 or 2010: Total Workforce</b>	<b>Year 2008 or 2010: Construction Occupations</b>	<b>Year 2008 or 2010: Electrical Infrastructure Operations</b>	<b>Year 2018 or 2020: Projections Total Workforce</b>	<b>Year 2018 or 2020: Projections Construction Occupations</b>	<b>Year 2018 or 2020: Electrical Infrastructure Operations</b>	<b>Year 2013: Unemployment by County (%)</b>
La Paz County, AZ (Lake Havasú–Kingman MSA): 2010	44,050	2,240	90	N/A	N/A	N/A	9.5
Yuma County, AZ (Yuma MSA): 2010	55,720	4,440	130	N/A	N/A	N/A	29.3

**Notes:** MSA = Metropolitan Statistical Area

Includes those identified in the Construction Management, Architecture and Engineering, and the Construction and Extraction trades.

Includes those identified in the Plant System Operators, Power Distributors and Dispatchers, Power Plant Operators, and Plant and System Operators trades.

**Source:** California Economic Development Department 2013a and 2013b; Nevada Department of Employment, Training, and Rehabilitation (NDETR) 2013a and 2013b; Arizona Department of Administration ADAO 2013a and 2013b.

A portion of BLM's 2012 budget was the New Energy Frontier Initiative. As part of this initiative, BLM promotes and facilitates the development of renewable energy facilities on public lands. The 2012 budget for renewable energy included an increase of \$3 million, intended to focus on the environmental elements of renewable energy project proposals. The 2012 budget also maintained BLM's capacity to manage conventional energy development on public lands, but reflects evolving changes in the sources of funding for BLM's energy programs (BLM 2012b).

The abundance of natural resources on BLM-administered public lands throughout California supports families, local communities, and economies. Traditional uses of these public lands, including mining, grazing, and timber harvesting, now blend with activities such as outdoor recreation and energy production. In fiscal year 2012, recreation and other activities on BLM-administered public lands contributed more than \$2.5 billion to local and state economies and supported more than 9,600 California jobs (BLM 2013). While fiscal data is not available for the DRECP area only, specific highlights of BLM's recent economic contributions within California include (BLM 2013):

- **Solar Energy:** Processing 22 applications encompassing 309,000 acres; 3 authorized solar facilities in construction, totaling 1,170 megawatts (MW) of production; 1,700 additional MW authorized in three projects; potential to collect \$23 million in annual rent during production. These include the Desert Sunlight Solar Farm, Genesis NextEra, and Ivanpah Solar Generating Station projects, identified in Appendix O as environmental baseline.
- **Wind Energy:** 1,373 turbines authorized, producing 828 MW in 27 rights-of-way on 28,800 acres (capable of producing more than \$1.8 million in annual rent), and processing 9 development applications on 58,200 acres. This includes the Alta East Wind project, identified in Appendix O as environmental baseline.
- **Geothermal:** 420 MW; 3.1 billion kilowatt/hours of electricity; six producing fields; 99 leases; 31 power plants; \$8.4 million in royalties.
- **Biomass:** Western juniper initiative underway, approximately 45,000 tons of biomass offered annually.
- **Right-of-Way (ROW):** Approximately 12,000 linear miles of ROW, including 2,227 road authorizations and 2,054 authorizations for power and telephone lines.
- **Payments in Lieu of Taxes:** The BLM distributed \$40.3 million of "payments in lieu of taxes" to compensate California counties and local governments for nontaxable federal lands in their jurisdictions.

### III.23.2.5.2 Local Government Services

Table III.23-4 summarizes fiscal year 2011–2012 municipal budgets (most current available data) for each of the seven counties within the DRECP area. It also itemizes revenue and allocation sources of interest to socioeconomic stimuli (where available). The purpose of this baseline data is to establish the revenue and expenditure base of these communities. Environmental baseline and analysis specific to public service levels (fire, police, schools, parks, etc.) are not part of the socioeconomic analysis. Refer to the public services (Chapter III.22) and recreational analyses (Chapter III.18) within this EIS for those particular topics. For a discussion of potential impacts to roadway capacity and service, see Chapter III.19, Transportation and Public Access.

**Table III.23-4  
Fiscal Year 2011–2012 Municipal Budgets for Local Governments  
Within the DRECP Area**

Area	Total Revenue	Total Expenditures
Imperial County, CA	\$480,310,614 (8.1% from Taxes) (<1% from Licenses & Permits)	\$480,310,614
Inyo County, CA	\$70,344,227 (32.6% from Taxes) (<1% from Licenses & Permits)	\$77,865,291 (2.1% Education and Parks)
Kern County, CA	\$1,641,443,794 (23.2% from Taxes) (1.1% from Licenses & Permits)	\$1,641,443,794 (4.9% Public Ways & Facilities) (0.8% Recreation and Cultural) (0.5% Education)
Los Angeles County, CA	\$23,300,000,000 (20% from Taxes)	\$23,300,000,000 (1.4% Recreation and Cultural)
Riverside County, CA	\$4,397,700,000 (10.4% from Taxes) (<1% Licenses & Permits)	\$4,783,900,000 (<1% Parks and Open Space)
San Bernardino County, CA	\$3,314,395,474 (17.3% from taxes)	\$3,982,031,175
San Diego County, CA	\$4,086,000,000 (19.3% from Taxes)	\$4,086,000,000 (8.6% Land Use and Environment)

### **III.23.3 Community and Social Organization**

#### **III.23.3.1 Study Area**

Based on guidance from Appendix D of the BLM Land Use Planning Handbook, the study area for this specific discussion (within the DRECP area) should include gateway communities, natural resource-dependent communities, and wild land–urban interfaces. Given the programmatic nature of this EIS, these localized community discussions do not apply to this socioeconomic analysis because of their site-specific nature. These localized community analyses will be appropriately conducted in supplemental project-specific NEPA documents for renewable energy projects within the DRECP area where BLM is the federal lead agency (see Chapter IV, Section IV.23.1.1.3, Future Project-Specific Analyses, for more information).

A discussion of Native American populations and lands appears elsewhere in this volume; including environmental justice concerns as they specifically relate to Native American populations (see Chapter III.9, Native American Interests). The following section complies with the applicable component of the BLM Land Use Planning Handbook Appendix D requirements in determining social values and community attitudes toward renewable energy development (for the entire DRECP boundary).

#### **III.23.3.2 Social Values and Community Attitudes Toward Renewable Energy Development**

In 2002, California established the Renewable Portfolio Standard (RPS) with the goal of increasing the percentage of renewable energy in the state’s electricity mix to 20% of retail sales by 2017. The current RPS applies to all electricity retailers in the state including publicly owned utilities, investor-owned utilities, electricity service providers, and community choice aggregators. All of these entities must adopt these RPS goals of 20% of retail sales from renewables by the end of 2013, 25% by the end of 2016, and 33% by the end of 2020.

RPS goals and mandates were developed at the state level, and an interpretation of public values and attitudes toward renewable energy development only within the DRECP area would be speculative. However, it can be assumed that California communities (including those within the DRECP area) understand that adherence to this regulation requires the use of natural resources and public lands for renewable energy project development needed to achieve these goals. Therefore, in an effort to categorize the social values and attitudes toward renewable energy development, this Proposed LUPA considers public comment and participation throughout the

environmental reviews of baseline renewable energy projects (refer to Appendix O) and the DRECP LUPA environmental review and planning process.

During environmental review and throughout individual renewable energy project approvals, BLM solicited and received public perception and input regarding renewable energy project development within the DRECP area. The environmental baseline includes more than 50 renewable energy projects within the DRECP boundary (Appendix O). As shown in Appendix O, Table 2, larger renewable energy projects generating more than 200 MW have the greatest potential to generate social change within the communities serving them. This is due to the large workforce necessary to construct and support the ongoing operation of these larger renewable energy installations.

The majority of baseline projects are located within Riverside, San Bernardino, and Imperial counties (see Appendix O, Table 2). Therefore, these baseline projects have likely already influenced residents' perception and social attitudes toward renewable energy project development within those regional study areas. The influence of these baseline projects is included within each project's scoping comments and public participation during environmental review. It should be noted that Appendix O does not include all small renewable projects within the DRECP area. Therefore, public opinion of the projects included in Appendix O does not necessarily reflect what may occur. However, these projects and DRECP scoping comments represent the best available information regarding community attitudes toward renewable energy development within the DRECP area.

Community values and attitudes have helped shape key Renewable Energy Action Team (REAT) documents guiding renewable energy development. As part of the REAT, BLM participated in the development of the DRECP area, the Best Management Practices and Guidance Manual for Desert Renewable Energy Projects, and public scoping for this EIS. All of these activities relate to renewable energy project development within the DRECP area. The REAT encouraged public input on the proposed scope of environmental review for the DRECP. Multiple scoping meetings have been conducted throughout the state during preparation of this Final EIS. This chapter has considered all public comments and input received to date that relate to the Proposed LUPA.

## **III.23.4 Environmental Justice Conditions**

### **III.23.4.1 Defining Environmental Justice Populations**

The CEQ Environmental Justice Guidance defines "minorities" as individuals who are members of the following population groups: American Indian or Alaskan Native, Asian or Pacific Islander, Black not of Hispanic origin, or Hispanic (CEQ 1997). The total minority population has been calculated by subtracting the white alone, not Hispanic or

Latino, population from the total population. Within this analysis, for the regional study area, an environmental justice population of concern is identified when the minority population of the potentially affected area is greater than 50% or the minority population percentage is meaningfully greater than the minority population in the general population or other appropriate unit of geographical analysis. For the local study area, any census tract with a minority population greater than 50% was identified as an environmental justice tract of concern.

The CEQ Environmental Justice Guidance defines “low-income populations” as populations with mean annual incomes below the annual statistical poverty level. For this analysis, low-income population was determined by utilizing the U.S. Census data for persons “below poverty level.” The CEQ and EPA guidance do not provide a discrete threshold for determining when a low-income population should be identified for environmental justice. Within this analysis, for the regional study area, an environmental justice population of concern is identified when the percentage of low-income population of the potentially affected area is equal to or greater than the low-income population of the greater geography. For the local study area, if the low-income percentage of a census tract was found equal to or greater than that of the county in which it is located, it has been identified for environmental justice analysis.

### III.23.4.2 Regional Study Area Minority and Low-Income Populations

Table III.23-5 identifies the minority and low-income percentages of California and each county that the DRECP area includes. It should be noted that several counties (Los Angeles, San Diego, Kern) are not located entirely within the DRECP boundary. As shown, all counties except Inyo are considered regional environmental justice areas of concern with respect to minority population. All counties except Inyo and San Diego are considered regional environmental justice areas of concern with respect to low-income population.

**Table III.23-5  
U.S. Census 2008-2012 ACS  
Environmental Justice Demographics for California and Regional Study Areas**

Area	Total Population	Minority Population (Percent of Total)	Percent of Total Population Low-Income
<i>California</i>	37,325,068	22,347,558 (59.9%)	15.3%
Imperial County, CA	173,487	149,611 (86.2%)	23.0%
Inyo County, CA	18,474	6,727 (33.9%)	11.3%
Kern County, CA	839,153	515,581 (61.4%)	22.5%
Los Angeles County, CA	9,840,024	7,108,419 (72.2%)	17.1%

**Table III.23-5**  
**U.S. Census 2008-2012 ACS**  
**Environmental Justice Demographics for California and Regional Study Areas**

Area	Total Population	Minority Population (Percent of Total)	Percent of Total Population Low-Income
Riverside County, CA	2,192,982	1,325,402 (60.4%)	15.6%
San Bernardino County, CA	2,041,029	1,363,925 (66.8%)	17.6%
San Diego County, CA	3,100,500	1,597,865 (51.5%)	13.9%

Because U.S. Census 2008-2012 American Community Survey (ACS) estimates come from a sample population, a certain level of variability is associated with the estimates. Supporting documentation on ACS data accuracy and statistical testing can be found on the ACS website in the Data and Documentation section available at [http://www.census.gov/acs/www/data\\_documentation/documentation\\_main/](http://www.census.gov/acs/www/data_documentation/documentation_main/). For purposes of this analysis, U.S. Census ACS data was utilized for providing current data, consistency between the data used to identify minority and low-income populations, and consistency between the different geographies presented. For these reasons, U.S. Census ACS data is considered best available for representing the demographic makeup of communities for this programmatic EIS. Use of published U.S. Census ACS data estimates is commonly used by Lead Agencies in compliance with Executive Order 12898, California Government Code Section 65040.12 and Public Resources Code Section 72000, as well as CEQ and EPA guidance for incorporating Environmental Justice Concerns under NEPA.

Represents the population excluding those identified as “Not Hispanic or Latino, White Alone” within the U.S. Census 2008-2012 ACS data set.

Represents individuals with mean annual incomes below the annual statistical poverty level, identified by poverty status in the last 12 months, identified as “percent below poverty level” within the U.S. Census 2008-2012 ACS data set.

**Source:** U.S. Census Bureau 2014a and 2014b, as queried through ArcGIS Online to determine Census tracts containing the DRECP.

### III.23.4.3 Local Study Area Minority and Low-Income Populations

Appendix R1.23, Table R1.23-1, presents the population of each U.S. Census tract (by county) and the percentage of minority or low-income population within the DRECP area. When considering environmental justice population on a programmatic level, the defined study area includes minority and low-income populations of U.S. Census tracts contained within DRECP boundary.

As described earlier, (see Section III.23.4.1 and Table R1.23-1), a minority census tract of concern was identified when the minority population of the census tract was found to be greater than 50%. Low-income populations of concern are identified when the percentage of low-income population of the census tract is equal to or greater than the percent low-income of the county in which it is located. In Table R1.23-1, tracts of concern are shaded, with their locations shown in Appendix R1, Figures R1.23-1 and R1.23-2.

The following summarizes the number of identified environmental justice tracts of concern by county:

- **Imperial County:** Contains 25 minority tracts of concern and 13 low-income tracts of concern.

- **Inyo County:** Contains no minority tracts of concern and no low-income tracts of concern.
- **Kern County:** Contains 4 minority tracts of concern and 7 low-income tracts of concern.
- **Los Angeles County:** Contains 58 minority tracts of concern and 42 low-income tracts of concern.
- **Riverside County:** Contains 8 minority tracts of concern and 7 low-income tracts of concern.
- **San Bernardino County:** Contains 41 minority tracts of concern and 49 low-income tracts of concern.
- **San Diego County:** Contains no minority tracts of concern and 2 low-income tracts of concern.

### **III.23.5 Socioeconomics and Environmental Justice by Ecoregion Subarea**

This section identifies communities of interest within the DRECP area by ecoregion subareas for socioeconomics and environmental justice. Also refer to these tables for details on each ecoregion subarea: For countywide and local study area populations and housing data, see Tables III.23-1 and III.23-2. For employment profile and local government economic profile data for the counties within each ecoregion subarea, see Tables III.23-3 and III.23-4. For environmental justice demographic data for the Census tracts containing each ecoregion subarea, see Table R1.23-1 (and corresponding Figures R1.23-1 and R1.23-2) in Appendix R1.23.

#### **III.23.5.1 Cadiz Valley and Chocolate Mountains Ecoregion Subarea**

The majority of the Cadiz Valley and Chocolate Mountains ecoregion subarea is within Eastern Riverside County. The northern portion of this ecoregion subarea is within San Bernardino County, and the southern portion is within Eastern Imperial County. Blythe, in Riverside County, is the only local study area community that is entirely within the Cadiz Valley and Chocolate Mountains ecoregion subarea. No local study area communities within San Bernardino or Imperial counties are located within this ecoregion subarea.

#### **III.23.5.2 Imperial Borrego Valley Ecoregion Subarea**

The majority of the Imperial Borrego Valley ecoregion subarea is within Imperial County, and a small portion of its western boundary is within San Diego County. The following Imperial County local study area communities are entirely within this ecoregion subarea:

- Brawley

- Calexico
- El Centro
- Imperial

No local study area communities within San Diego County are located within the Imperial Borrego Valley ecoregion subarea.

### **III.23.5.3 Kingston and Funeral Mountains Ecoregion Subarea**

The northern portion of the Kingston and Funeral Mountains ecoregion subarea is within Inyo County, and the southern portion is within San Bernardino County. No local study areas are located within this ecoregion subarea.

### **III.23.5.4 Mojave and Silurian Valley Ecoregion Subarea**

The Mojave and Silurian Valley ecoregion subarea is almost entirely within San Bernardino County, except for a small portion of its western boundary within Kern County. No local study areas are located here.

### **III.23.5.5 Owens River Valley Ecoregion Subarea**

The Owens River Valley ecoregion subarea is entirely within the western side of Inyo County. Local study areas within this subarea are smaller rural communities. The portion of the Owens River Valley ecoregion subarea within the BLM Bishop Field Office boundary is economically important; its local economy is geared to tourism and the film industry. The BLM Bishop Field Office issues dozens of annual permits for commercial still and motion photography, ranging from advertisements to major motion pictures in the Alabama Hills. Revenue from these permits and localized spending from production crews and materials help shape the socioeconomic profile of this particular portion of the ecoregion subarea. Please note tourism and filming is important to all of Inyo County and not just the Alabama Hills. The ability to use public lands in the county in the way they have been for generations is also an important factor in the socioeconomic profile of Inyo County.

### **III.23.5.6 Panamint Death Valley Ecoregion Subarea**

The northern portion of the Panamint Death Valley ecoregion subarea is within Inyo County, and the southern portion is within San Bernardino County. A small portion of the southwestern boundary is within Kern County. Local study areas within this ecoregion subarea are smaller rural communities.

### **III.23.5.7 Pinto Lucerne Valley and Eastern Slopes Ecoregion Subarea**

The majority of the Pinto Lucerne Valley and Eastern Slopes ecoregion subarea is within San Bernardino County, with a portion of the south end within Riverside County. The following San Bernardino County local study area communities are located entirely within this ecoregion subarea:

- Apple Valley
- Twentynine Palms
- Yucca Valley

No local study area communities within Riverside County are located within the Pinto Lucerne Valley and Eastern Slopes ecoregion subarea.

### **III.23.5.8 Piute Valley and Sacramento Mountains Ecoregion Subarea**

The Piute Valley and Sacramento Mountains ecoregion subarea is entirely within the southeastern area of San Bernardino County. Local study areas within this ecoregion subarea are smaller rural communities.

### **III.23.5.9 Providence and Bullion Mountains Ecoregion Subarea**

The Providence and Bullion mountains ecoregion subarea is entirely within San Bernardino County. Local study areas within this ecoregion subarea are smaller rural communities.

### **III.23.5.10 West Mojave and Eastern Slopes Ecoregion Subarea**

The West Mojave and Eastern Slopes ecoregion subarea is within Kern, Los Angeles, and San Bernardino counties, with a small portion located in Inyo County. This ecoregion subarea is the most urban of all the DRECP ecoregion subareas and it contains the following local study area communities:

- Kern County
- California City
- Ridgecrest
- Tehachapi
- Los Angeles County
- Lancaster
- Palmdale
- San Bernardino County
- Adelanto
- Barstow
- Hesperia
- Victorville

### **III.23.6 Socioeconomics and Environmental Justice Outside the DRECP Area**

This EIS considers the potential impacts of transmission lines that may be required outside of the LUPA Decision Area to carry power generated by renewable energy facilities to urban centers in the western portion of the state. Because of the regional nature of socioeconomic and environmental justice issues, the regulatory (Section III.23.1), employment (Section III.23.2.4), public finance (Section III.23.2.5), and community and social organization (Section III.23.3) environmental settings also apply to transmission corridors, described below.

The following describes the population, housing, and environmental justice for each of the transmission corridor areas: San Diego, Los Angeles, North Palm Springs–Riverside, and Central Valley. The transmission corridors extend outside both the LUPA Decision Area and DRECP boundaries. Consistent with the socioeconomic and environmental justice environmental setting presented for the DRECP area, the following data include only the counties traversed by corridors and the largest city within each county outside the DRECP area.

Table III.23-6 summarizes the current and forecasted population of the corridors outside the DRECP area. Table III.23-7 summarizes the existing housing profile and availability in each area. Finally, Table III.23-8 identifies the minority and low-income percentage of the population for each community traversed by the transmission corridor.

#### **III.23.6.1 San Diego Area**

The San Diego corridor boundary roughly follows the existing Sunrise Powerlink corridor. The line would exit the DRECP boundary in the Jacumba area, head northwest through the McCain Valley, head southwest then south through the Cleveland National Forest, then head west then northwest through Alpine and the urban and suburban areas of Santee, El Cajon, and San Diego.

#### **III.23.6.2 Los Angeles Area**

Corridors in this area follow the 500 kV Segment 11 of the Tehachapi Renewable Transmission Project (TRTP) for approximately 37 miles from the Vincent Substation to the Mesa Substation, and an existing 220 kV line south from the Mesa Substation near the city of Montebello to Lighthipe Substation near the city of Paramount for about 12 miles. One upgraded 320 kV DC line would extend from Station 7 to Station B/Station 8 located near the city of South Gate in the Los Angeles area. No socioeconomic or environmental justice data are presented for the portion of the Los Angeles area corridors traversing Angeles National Forest, as these areas have very little population and federal and state demographic data for these lands are not available.

### III.23.6.3 North Palm Springs–Riverside Area

Corridors in the North Palm Springs–Riverside area include multiple 500 kV transmission lines, which primarily follow the existing Devers transmission corridor. This corridor is located within both Riverside and San Bernardino counties.

### III.23.6.4 Central Valley Area

In the Central Valley area, a 500 kV transmission line would extend from the Whirlwind Substation to the PG&E Midway 500 kV Substation near Buttonwillow, and two 500 kV lines would extend from the PG&E Midway Substation to the Tesla Substation west of the city of Tracy. The latter would follow the Path 15 Transmission Line corridor through Gates and Los Banos. The route is generally 3 to 7 miles west of Interstate 5 from the PG&E Midway Substation near Buttonwillow to the Tesla Substation. This corridor is located primarily within unincorporated areas of Kern, Kings, Fresno, Stanislaus, and San Joaquin counties.

**Table III.23-6  
Population Profile and Projections for the Areas Outside the DRECP**

Area	2013 Population	2020 Projected Population	2030 Projected Population	2040 Projected Population
<i>San Diego Area</i>				
<i>San Diego County</i>	3,150,178	3,333,995	3,530,896	3,749,240
San Diego	1,326,238	N/A	N/A	N/A
<i>Los Angeles Area</i>				
<i>Los Angeles County</i>	9,958,091	10,441,441	10,950,335	11,243,022
Los Angeles	3,863,839	N/A	N/A	N/A
<i>North Palm Springs–Riverside Area</i>				
<i>Riverside County</i>	2,555,059	2,593,211	3,046,064	3,462,256
Riverside	311,955	N/A	N/A	N/A
<i>San Bernardino County</i>	2,076,274	2,273,017	2,626,945	2,988,648
San Bernardino	212,639	N/A	N/A	N/A
<i>Central Valley Area</i>				
<i>Kern County</i>	857,882	1,057,440	1,341,278	1,618,681
Bakersfield	359,221	N/A	N/A	N/A
<i>Kings County</i>	152,007	176,647	205,627	235,129
Hanford	55,479	N/A	N/A	N/A
<i>Fresno County</i>	952,166	1,071,728	1,241,773	1,397,138
Fresno	508,453	N/A	N/A	N/A
<i>Stanislaus County</i>	542,124	589,156	674,859	759,027

**Table III.23-6  
Population Profile and Projections for the Areas Outside the DRECP**

Area	2013 Population	2020 Projected Population	2030 Projected Population	2040 Projected Population
Modesto	205,987	N/A	N/A	N/A
<i>San Joaquin County</i>	<i>698,414</i>	<i>810,845</i>	<i>1,004,147</i>	<i>1,213,708</i>
Stockton	296,344	N/A	N/A	N/A

N/A = Data unavailable.

Source: California Department of Finance 2013a and 2013b

**Table III.23-7  
Year 2013 Housing Profile of Areas Outside the DRECP**

Area	Total Housing Units	Vacant Units (Vacancy Rate)
<i>San Diego Area</i>		
<i>San Diego County</i>	<i>1,174,866</i>	<i>77,541 (6.6%)</i>
San Diego	519,181	33,228 (6.4%)
<i>Los Angeles Area</i>		
<i>Los Angeles County</i>	<i>3,463,382</i>	<i>204,339 (5.9%)</i>
Los Angeles	1,425,372	96,925 (6.8%)
<i>North Palm Springs–Riverside Area</i>		
<i>Riverside County</i>	<i>812,234</i>	<i>116,149 (14.3%)</i>
Riverside	99,152	6,544 (6.6%)
<i>San Bernardino County</i>	<i>704,540</i>	<i>88,068 (12.5%)</i>
San Bernardino	65,451	6,152 (9.4%)
<i>Central Valley Area</i>		
<i>Kern County, CA</i>	<i>288,624</i>	<i>30,017 (10.4%)</i>
Bakersfield	123,066	9,722 (7.9%)
<i>Kings County</i>	<i>44,429</i>	<i>2,710 (6.1%)</i>
Hanford	18,783	1,014 (5.4%)
<i>Fresno County</i>	<i>320,643</i>	<i>26,613 (8.3%)</i>
Fresno	174,775	13,282 (7.6%)
<i>Stanislaus County</i>	<i>179,908</i>	<i>14,393 (8.0%)</i>
Modesto	75,601	5,973 (7.9%)
<i>San Joaquin County</i>	<i>253,906</i>	<i>20,312 (8.0%)</i>
Stockton	100,003	9,100 (9.1%)

N/A = Data unavailable.

Source: California Department of Finance 2013b

**Table III.23-8**  
**U.S. Census 2008-2012 ACS**  
**Environmental Justice Demographics of Areas Outside the DRECP**

Area	Total Population	Minority Population (Percent of Total)	Percent of Total Population Low-Income
<i>San Diego Area</i>			
<i>San Diego County, CA</i>	3,100,500	1,597,865 (51.5%)	13.9%
San Diego	1,308,619	723,423 (55.3%)	15.5%
<i>Los Angeles Area</i>			
<i>Los Angeles County, CA</i>	9,840,024	7,108,419 (72.2%)	17.1%
Los Angeles	3,804,503	2,713,987 (71.3%)	21.2%
<i>North Palm Springs–Riverside Area</i>			
<i>Riverside County, CA</i>	2,192,982	1,325,402 (60.4%)	15.6%
Riverside	306,128	204,209 (66.7%)	17.5%
<i>San Bernardino County, CA</i>	2,041,029	1,363,925 (66.8%)	17.6%
San Bernardino	210,624	169,486 (80.4%)	30.6%
<i>Central Valley Area</i>			
<i>Kern County, CA</i>	839,153	515,581 (61.4%)	22.5%
Bakersfield	347,091	217,201 (62.6%)	19.3%
<i>Kings County</i>	151,989	98,092 (64.5%)	20.7%
Hanford	53,695	30,844 (57.4%)	18.3%
<i>Fresno County</i>	930,517	626,601 (67.3%)	24.8%
Fresno	495,777	345,488 (69.7%)	27.5%
<i>Stanislaus County</i>	515,115	274,570 (53.3%)	19.2%
Modesto	201,986	104,338 (51.7%)	19.5%
<i>San Joaquin County</i>	687,036	440,185 (64.1%)	17.5%
Stockton	292,692	224,975 (76.9%)	23.3%

Because U.S. Census 2008-2012 American Community Survey (ACS) estimates come from a sample population, a certain level of variability is associated with the estimates. ACS estimate data was utilized for providing current data, consistency among the different geography types presented, and is considered to represent the best available for representing the demographic makeup of these communities for this programmatic EIS. Please note, U.S. Census 5-year ACS data is regularly used by Lead Agencies for decisions under NEPA.

Represents the population excluding those “Not Hispanic or Latino, White Alone.”

Represents individuals with mean annual incomes below the annual statistical poverty level, identified by poverty status in the last 12 months, as identified within the U.S. Census 2008-2012 ACS data set as “percent below poverty level.”

**Source:** U.S. Census Bureau 2014a, 2014b

INTENTIONALLY LEFT BLANK