

III.20 VISUAL RESOURCES

Visual resources include all human-made, natural, moving, and stationary objects and features that can be seen in a given landscape such as landforms and bodies of water. These resources either add to or detract from a landscape's beauty or visual appeal. Both daytime and night lighting conditions affect the visual quality of landscapes.

Landforms, vegetation, water surfaces, and human-made physical changes all contribute to a landscape's visual qualities. A landscape's existing visual character is the baseline used to determine whether a proposed action would be either compatible or incompatible with that character. The public's expectations, goals, values, awareness, and concerns also inject a social dimension into this visual resource analysis. This social dimension helps determine both the visual sensitivity and the relative degree of public interest in a landscape, and therefore the public concern over potential changes to that landscape.

III.20.1 Regulatory Setting

III.20.1.1 Federal

III.20.1.1.1 Federal Land Policy and Management Act of 1976

The Federal Land Policy and Management Act of 1976 (FLPMA) (43 United States Code [U.S.C.] 1701) and the U.S. Department of the Interior's (DOI) *Bureau of Land Management* (BLM) *Land Use Planning Handbook* (BLM 2005) both emphasize the importance of protecting the quality of scenic resources on public lands. FLPMA sections relevant to The Desert Renewable Energy Conservation Plan (DRECP or Plan) are:

Section 102(a): "The public lands [shall] be managed in a manner that will protect the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archaeological values."

Section 103(c): Identifies "scenic values" as resources for public management. Section 201(a): "The Secretary shall prepare and maintain on a continuing basis and inventory of all public lands and their resources and other values (including...scenic values)."

Section 505(a): "Each right-of-way shall contain terms and conditions which will...minimize damage to the scenic and esthetic values."

FLPMA's legal mandate to protect the quality of scenic resources on public lands is carried out by BLM and detailed in BLM's Visual Resource Management (VRM) system, described below.

III.20.1.1.2 Bureau of Land Management Visual Resource Inventory and Management Guidance

BLM, through FLPMA, is charged with protecting the scenic value of public lands. To accomplish this, BLM has developed and uses an analytical process, the VRM system, to identify, set, and maintain those scenic values. The VRM system has two key aspects: inventorying visual resources and managing those resources (BLM 1984[a]).

Through the inventory process, BLM identifies the visual resources of a given area and, based upon specific standards, assigns each area to an inventory class. This process involves rating the resource’s visual qualities, measuring public concern, and determining the extent to which an area is visible from travel routes and other observation points. This process is further described in detail in BLM Manual H-8410-1, Visual Resource Inventory (VRI) (BLM 1984[b]). Those three factors then determine to which of VRI’s four classes BLM-administered lands are assigned. (Table III.20-1). These four VRI classes represent the relative values of visual resources. Classes I and II represent the highest visual value, Class III represents moderate value, and Class IV represents relatively low visual value. The four VRI classes are the foundations upon which BLM considers visual value in its management planning processes.

As shown in Table III.20.1, Visual Resource Inventory Classification Matrix, classifications are based on visual sensitivity level (high, medium, and low), scenic quality, and distance.

**Table III.20-1
Visual Resource Inventory Classification Matrix**

Scenic Quality	VSL High	VSL-High	VSL-High	VSL-Medium	VSL-Medium	VSL-Medium	VSL-Low
Special Areas	I	I	I	I	I	I	I
A	II	II	II	II	II	II	II
B	II	III	III*/IV*	III	IV	IV	IV
C	III	IV	IV	IV	IV	IV	IV
Distance Zones	f/m	b	s/s	f/m	b	s/s	s/s

Source: BLM Manual H-8410-1 (BLM 1984b)

VSL – Visual Sensitivity Level

Key to Distance Zones:

f/m=foreground/midground

b=background

s/s=seldom seen

* If adjacent areas are Class III or lower, assign Class III; if higher, assign Class IV.

Using its VRM approach, BLM considers VRI values in the larger context of its other management needs and decisions. The BLM then determines appropriate visual resource

management classes and assigns them to specific geographic areas. VRM classes assigned to areas do not always correspond to VRI class assignments. In cases where VRM classes have not been designated in management plans, interim VRM classes are assigned to a project on a project-specific basis through the permit approval process. VRM Class I is assigned to areas identified as VRI Class I, including wilderness, Wilderness Study Areas (WSAs), and other locations where natural environments must not be altered by human actions, even absent exceptional scenic values. Each of the VRM classes contains objectives ranging from preservation to the accommodation of major modifications. The classes therefore allow different degrees of modification to the basic landscape elements of form, line, color, and texture, among other elements.

The BLM-established management objectives for each VRM class appear in Table III.20-2.

Table III.20-2
Visual Resource Management Objectives by Class

Visual Resource Class	Visual Management Objective
Class I	The objective of this class is to preserve the existing character of the landscape. This class provides for natural ecological changes; however, it does not preclude very limited management activity. The level of change to the characteristic landscape should be very low and must not attract attention .
Class II	The objective of this class is to retain the existing character of the landscape. The level of change to the characteristic landscape should be low. Management activities may be seen, but should not attract the attention of the casual observer. Any changes must repeat the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape.
Class III	The objective of this class is to partially retain the existing character of the landscape. The level of change to the characteristic landscape should be moderate. Management activities may attract attention , but should not dominate the view of the casual observer. Changes should repeat the basic elements found in the predominant natural features of the characteristic landscape.
Class IV	The objective of this class is to provide for management activities which require major modification of the existing character of the landscape. The level of change to the characteristic landscape can be high. These management activities may dominate the view and be the major focus of viewer attention . In accordance with FLPMA section 302(f), any action necessary to prevent unnecessary and undue degradation to the lands is to be taken, such as, but not limited to, careful location, minimal disturbance, and repeating the basic elements.

Source: BLM Manual H-8410-1

III.20.1.1.3 Federal Aviation Administration

The Federal Aviation Administration's (FAA) *FAA Advisory Circular 70/7460-1K* (FAA 2007) requires that all airspace obstructions higher than 200 feet or close to an airfield have appropriate lighting. Chapter 13 describes the requirements for marking and lighting wind turbines in wind farms with three or more turbines with heights above 200 feet. As further described in this circular, general standards for lighting wind farms include:

- Not all wind turbines require lighting.
- Obstruction lights within a group of wind turbines should have unlighted separations, or gaps, of not greater than half a statute mile to clearly define the group's dimensions and appearance. This is especially critical if their arrangement is linear.
- Wind turbine night lighting should be the preferred FAA L-864 aviation flashing red lights: the standard flashing range is 20-40 flashes per minute.
- Wind turbine daytime lighting is not required as long as the turbines are painted either a bright white or light off-white color.
- Light fixtures should be as high as possible on the turbine's housing cover (nacelle) so they can be clearly seen from all angles.
- When wind turbines are lined up in a straight, linear formation, a light should be placed on turbines at the end of each line.
- FAA is preparing changes to its *FAA Advisory Circular 70/7460-1K* that will specify audio visual warning systems (AVWS) as permissible options for meeting the established technical standards that identify air navigation obstructions (FAA 2009). The AVWS employs both lights and an audio warning to pilots. The system's lights and audio warning are off until activated by radar detecting an aircraft approaching the obstruction. FAA will accept, analyze, and approve an AVWS as an alternative to conventional lighting on a case-by-case basis.

Some transmission towers and towers used in particular types of thermal solar developments also require obstruction warning lighting. For very tall towers, this includes daytime strobe lighting as well as night lighting.

III.20.1.2 State

California Department of Transportation: Scenic Highway Program

The California Scenic Highway Program was created in 1963 to preserve and protect scenic highway corridors from changes that would diminish the aesthetic value of lands adjacent to them. The scenic highway system includes both "designated" scenic

highways and “eligible” scenic highways. An “eligible” state highway becomes “designated” only after a local jurisdiction applies to Caltrans for a scenic corridor designation and Caltrans approves it.

California Energy Commission

The Warren-Alquist Act of 1974 (Division 15 of the Public Resource Code, (Section 2500 et. seq.) created the State Energy Resources Conservation and Development Commission (California Energy Commission (CEC)). Chapter 1, Section 25001 of this legislation includes the following:

Section 25001. Legislative finding: essential nature of electrical energy – The Legislature hereby finds and declares that electrical energy is essential to the health, safety and welfare of the people of this state and to the state economy, and that it is the responsibility of state government to ensure that a reliable supply of electrical energy is maintained at a level consistent with the need for such energy for protection of public health and safety, for promotion of the general welfare, and for environmental quality protection.

CEC regulations (Section 1742 [a]) require applications for certification of a proposed energy facility present information on the environmental effects of the facility and mitigation measures. This environmental requirement includes the effects on, and mitigation of, changes to visual resources. CEC’s methodology for assessing impacts on visual resources derives primarily from guidelines developed by BLM, the U.S. Forest Service, and the U.S. Department of Transportation (DOT). The guidelines are relevant and appropriate for a variety of environmental settings.

The analysis method to evaluate potential impacts on visual resources from construction to the operation of proposed projects involves the following general steps:

- Define the visual environment, or visual sphere of influence (VSOI), where visual impacts could visually degrade the landscape. As stated in the Application for Certification (AFC), the VSOI may be digitally refined through computer viewshed analysis and mapping.
- Describe sensitive viewpoints and the process used to select key observation points, or critical viewpoints, within the project’s VSOI.
- Based on anticipated public sensitivity to the project and the estimated viewer response to the visual change, evaluate the potential effects of the project on the area’s visual resources for both construction and operation.

III.20.1.3 County

California state law requires that every county prepare and adopt a comprehensive and long-range General Plan for its physical development. Various elements of these general plans consider visual resources including open space, conservation, and circulation or locations of viewing. County officials often incorporate state and federal policies, regulations, and designations into county general plans. These mutually supportive county general plans support and reinforce state and federal designations (for example, scenic routes), provide specific requirements, and establish policy guidance reflective of community values. The visual, aesthetic, and scenic resource policies of counties within the Plan Area appear below.

Inyo County

The Inyo County General Plan contains visual resources policies in the Circulation and Conservation/Open Space elements. Three policies in the Circulation Element address the protection, financial support, and expansion of Caltrans designations for scenic route designations. Portions of US-395, SR-168, and SR-190 are included. The county's General Plan recognizes three officially designated scenic routes: national forest Scenic Byways, BLM National Scenic Byways, and BLM Backcountry Byways. Implementation measures include adoption of county standards for development near within the vicinity of scenic routes. These standards maintain the integrity of the county's viewsheds and support ongoing efforts to secure federal and state funding for the protection of designated scenic routes and public enjoyment of the areas with road-side rests, informational kiosks, and interpretive signs and markers.

Visual resources are also addressed in the county's Conservation and Open Space Element. Goals and policies include preserving and protecting visual resources for both visitors and county residents. Specific policies address (1) maintaining historic character, (2) community design, (3) grading to achieve natural hillside conditions, (4) screening building equipment, (5) outdoor advertising, and (6) minimizing lighting and glare (Inyo County 2001).

Kern County

The Kern County General Plan addresses visual resources in its Circulation and Land Use/Conservation/Open Space elements. The Scenic Highways section of the Circulation Element recognizes several Caltrans-designated "Eligible State Scenic Highways" within the county. They include portions of SR-14, US-395, SR-58, and SR-41 (outside Plan Area boundaries). Policy and implementation measures include developing a proposal that Caltrans officially designate these routes as scenic highways.

The Land Use, Open Space, and Conservation Element addresses visual resources and aesthetics primarily in commercial and industrial settings, outdoor storage, and landscaping. It also includes general policies for the protection of oak woodlands and the conservation of open space (Kern County 2009).

Los Angeles County

The Los Angeles County Revised Draft General Plan focuses on preservation of designated scenic areas, vistas, and roadways. This General Plan recognizes that the region's scenic features are significant resources. There are three designated state scenic highways in the county, all outside the Plan boundary (Los Angeles County 2012).

The Conservation and Natural Resources Element includes goals specific to scenic resources:

- Protect the county's scenic resources by regulating and mitigating development impacts.
- Protect the county's ridgelines from development that degrades their scenic value.
- Reduce light trespass, light pollution, and other visual threats to scenic resources.
- Encourage developments that are visually compatible with the natural terrain and vegetation.
- Require that grading conform to existing terrain.
- Prohibit outdoor advertising and billboards along scenic routes, corridors, and other scenic areas.
- Encourage inclusion of road-side rest stops, vista points, and interpretive displays in projects in scenic areas.
- Establish and manage Hillside Management Areas (areas of greater than 25% slopes) to protect natural and scenic characters and minimize risks from natural hazards such as fire, flood, erosion, and landslides. During the design phase of a project located within a Hillside Management Area consider both public safety and protection of hillside resources. Apply safety and conservation design standards; maintain large contiguous open areas to limit exposure to landslide, liquefaction, and fire hazards; and protect natural features including significant ridgelines, watercourses, and other significant ecological areas.

San Bernardino County

The San Bernardino County General Plan focuses on protecting vast undeveloped areas of land with significant scenic features. The General Plan states that these lands are under threat from both urban development and increasing outdoor recreational activities. It emphasizes the importance of protecting these resources by preserving their aesthetic

values. General Plan policies include (1) protecting scenic vistas by minimizing invasive ridgeline development; (2) requiring that future land development practices be compatible with existing topography and scenic vistas; (3) protecting natural vegetation; (4) protecting the scenic and open space qualities of cinder cones and lava flows; (5) maintaining and enhancing the visual character of scenic routes in the county; and (6) requiring that development along scenic corridors demonstrate, through visual analysis, that proposed improvements are compatible with present scenic qualities (San Bernardino County 2007).

Riverside County

Preserving and protecting scenic vistas and visual features on county roadways is a focus of the Riverside County General Plan. The General Plan recognizes the importance of these scenic features for the enjoyment of the traveling public. Scenic resources and scenic corridors are addressed in the Multipurpose Open Space Element, as well as in the scenic corridor sections of the Circulation and Land Use elements. Supporting goals within those elements appear below (Riverside County 2008):

- Identify and conserve the skylines, view corridors, and outstanding scenic vistas within Riverside County.
- Design developments within designated scenic highway corridors that balance the preservation of scenic resources with accommodations for compatible land uses.
- Study potential scenic highway corridors for possible inclusion in the Caltrans Scenic Highways Plan.
- Encourage collaboration among federal, state, county agencies, and citizen groups to promote and ensure compatible development within scenic corridors.
- Impose conditions on scenic easements for development within scenic highway corridors when required to preserve identified visual resources.
- Require contour grading and slope rounding to transform graded road slopes into natural configurations within scenic highway corridors.
- Preserve scenic routes that have exceptional or unique visual features, as identified in the Caltrans Scenic Highways Plan.
- When developing policies for public access, recognize that wind turbines have become tourist attractions.
- Provide for the permanent preservation of open space lands with important scenic values.
- Preserve and protect outstanding scenic vistas and visual features for the enjoyment of the traveling public.

- Incorporate riding, hiking, bicycle trails, and other compatible public recreational facilities within scenic corridors.
- Ensure that the design and appearance of new landscaping, structures, equipment, signs, or grading within designated and eligible state and county scenic highway corridors are compatible with the surrounding environment.
- Maintain at least a 50-foot setback from the edge of rights-of-way (ROW) for new development adjacent to both designated and eligible state and county scenic highways.
- Require that new or existing overhead electric or telecommunications lines visible from state and county scenic highways be undergrounded.
- Prohibit off-site outdoor advertising displays that are visible from designated and eligible state and county scenic highways.
- Require that the size, height, and type of on-premise signs visible from designated and eligible state and county scenic highways be the minimum needed for identification. The design, materials, color, and location of the signs should blend with the environment and feature natural materials wherever possible.
- Avoid blocking public views with solid walls.

Imperial County

The Imperial County General Plan contains 10 elements: Land Use, Housing, Circulation and Scenic Highways, Noise, Seismic and Public Safety, Agricultural, Conservation and Open Space, Geothermal/Alternative Energy and Transmission, Water, and Parks and Recreation.

The Regional Aesthetics section of the Conservation/Open Space Element identifies desert areas, dunes, sand hills, mountains, and the Salton Sea as the county's scenic visual resources. Its goal is to protect and enhance these visual resources to provide a pleasing environment for residents, tourists, and commercial and recreational interests. Additional policies support the preservation and enhancement of the natural beauty of the desert and mountain landscapes.

The Circulation and Scenic Highways Element provides the means to protect and enhance scenic resources within rural and urban highway corridors in Imperial County. Four roads within the county could potentially be designated as scenic highways: I-8, SR 78, SR 111, and Borrego-Salton Seaway (Imperial County Highway S-22). The county's goal is to develop a circulation system that highlights and preserves the area's environment and scenery. Objectives to accomplish this goal include (Imperial County 1993):

- Establish diverse modes of scenic recreational travel.
- Remove unauthorized billboards from scenic areas and restrict new off-site sign construction that is visible from scenic highways.

- Protect areas of outstanding scenic beauty along scenic highways and protect the aesthetics of those areas.
- Acquire scenic easements from private owners as needed.
- Develop standards for aesthetically valuable sites. Require design review as required so that structures, facilities, and activities are appropriately incorporated into the surrounding environment.
- Initiate corridor studies and recommend additional policies, programs, and specific plans for managing scenic resources; review and revise the Scenic Highway Program.

San Diego County

The San Diego County General Plan states that the county's anticipated urban growth provides opportunities to both identify and create new visual resources and preserve or enhance existing visual resources. The General Plan discusses the importance of maintaining and protecting scenic corridors and preserving night sky darkness within the natural environment.

The county's goals and policies to preserve its visual resources appear in the Conservation and Open Space Element of its General Plan. Specific policies for the protection of scenic resources include (San Diego County 2003):

- Require the protection of scenic highways, corridors, regionally significant scenic vistas, and other natural features including prominent ridgelines, dominant landforms, reservoirs, and scenic landscapes.
- Coordinate with the California Public Utilities Commission, energy companies, and public agencies to ensure that generation and transmission facilities and other public improvements are not sited in visually sensitive areas. Require that public improvements within visually sensitive areas blend into the natural landscape.
- Locate project elements down and away from ridgelines so that structures are not silhouetted against the sky.
- Coordinate with adjacent federal and state agencies, local jurisdictions, and tribal governments to minimize night-sky light pollution.

III.20.2 Visual Resources within the Plan Area

This section discusses known and potentially sensitive visual resources within the Plan Area including those identified in adopted plans, BLM Field Office inventories, or by other federal or state agencies.

III.20.2.1 Bureau of Land Management Visual Resource Management and Mapping

III.20.2.1.1 California Desert Conservation Area Plan Area

The majority of the BLM land within the Plan Area is within the BLM's California Desert Conservation Area (CDCA). Title VI of FLPMA delineated the CDCA as a Designated Management Area. The balance of the BLM land falls outside the CDCA. The CDCA Plan's Multiple Use Class designations, established by BLM and described in more detail in Section III.14, include visual sensitivity in these designations. The Imperial Sand Dunes Recreation Area Management Plan (RAMP)/CDCA Plan Amendment established VRM classes for the Imperial Sand Dunes RAMP area within the CDCA. However, formal VRM classes were never established for most of the CDCA. The Multiple Use Class designations generally indicate where new development may be built and when mitigation may be required for visual impacts. Multiple Use Class guidelines in the Recreation Element of the CDCA Plan require that BLM consider visual resources, along with other resource objectives, when identifying levels of management and protection in the CDCA Plan area.

III.20.2.1.2 Field Office Inventories

The BLM administers approximately 44% of the land within the Plan Area. All BLM land within the Plan Area (as well as CDCA land outside the Plan Area) has been inventoried in accordance with BLM's VRM process. However, visual resource management classifications have not been assigned to all inventoried lands, though are being considered through this planning process.

Field offices use the Visual Resource Inventory (VRI) process to determine visual (scenic) values within BLM-administered lands. This inventory process contains a scenic quality evaluation (Figure III.20-1), sensitivity level analysis (Figure III.20-2), and a delineation of distance zones (Figure III.20-3; Table III.20-3). VRI Class I is assigned to areas where a federally binding decision has been made to maintain a natural landscape and includes national wilderness areas, Wilderness Study Areas (WSAs), wild sections of national Wild and Scenic Rivers, and other federally and otherwise administratively designated areas where natural landscapes are preserved. Except for VRI Class I, BLM assigns VRI classes (Figure III.20-4; Table III.20-3) in accordance with the VRI Classification Matrix described and shown in Section III.20.1.1.2. Section III.20.3 provides a summary of VRI class acreage by DRECP ecoregion subarea.

In its 1993 RMP, the BLM Bishop Field Office designated VRM classes and required that visual resources be aligned with their corresponding visual objectives (Figure III.20-5; Table III.20-3). In the El Centro Field Office, the Imperial Sand Dunes Recreation Area Management Plan (RAMP/CDCA Plan Amendment) designated VRM classes (2013; Figure III.20-5.).

**Table III.20-3
Summary of Visual Resources and Visually Important
Management Units within the Plan Area (All Ecoregion Subareas)**

Category	Resource	Extent
BLM Visual Resource Inventory Classes	Class I	3,228,000 acres
	Class II	1,919,000 acres
	Class III	2,740,000 acres
	Class IV	2,006,000 acres
BLM Visual Resource Management Classes*	Class I	3,228,000 acres
	Class II	131,000 acres
	Class III	129,000 acres
	Class IV	22,000 acres
National Parks and Preserves	Joshua Tree	613,000 acres
	Death Valley	1,786,000 acres
	Mojave	1,589,000 acres
National Byways	Bradshaw Trail National Backcountry Byway	56 miles
	SR-190 Death Valley National Park Scenic Route	60.7 miles
National Trails	Juan Bautista De Anza National Historic Trail	82.6 miles
	Old Spanish National Historic Trail	367 miles
	Pacific Crest National Scenic Trail	114 miles
National Historic Sites	Manzanar	800 acres
State Parks	Agua Caliente County Park	500 acres
	Antelope Valley CA Poppy Preserve (SNR)	2,000 acres
	Antelope Valley Indian Museum SHP	400 acres
	Anza-Borrego Desert SP	210,000 acres
	Anza-Borrego Desert SW	66,000 acres
	Arthur B. Ripley Desert Woodland SP	600 acres
	Desert Cahuilla/Freeman Project	2,000 acres
	East Kern Co Acquisitions	28,000 acres
	Hagen Canyon Natural Preserve	1,000 acres
	Heber Dunes SVRA	300 acres
	Mitchell Caverns Natural Preserve	600 acres
	Ocotillo Wells SVRA	51,000 acres
	Picacho SRA	7,000 acres
	Providence Mountains SRA	6,000 acres
	Red Rock Canyon SP	25,000 acres
	Saddleback Butte	3,000 acres
Salton Sea SRA	400 acres	
Santa Rosa Mountains SW	30,000 acres	
Tomo-Kahni SHP	600 acres	

**Table III.20-3
Summary of Visual Resources and Visually Important
Management Units within the Plan Area (All Ecoregion Subareas)**

Category	Resource	Extent
State Scenic Highways/ Routes	SR-78 SR-190	6.4 miles 22.7 miles
Wild and Scenic Rivers	Amargosa River	22.7 miles

Note: The following general rounding rules were applied to calculated values: values greater than 1,000 were rounded to nearest 1,000; values less than 1,000 and greater than 100 were rounded to the nearest 100; values of 100 or less were rounded to the nearest 10, and therefore totals may not sum due to rounding. In cases where subtotals are provided, the subtotals and the totals are individually rounded. The totals are not a sum of the rounded subtotals; therefore the subtotals may not sum to the total within the table.

* Acres shown for VRM include all Wilderness Study Areas and wilderness, which by BLM policy are assigned VRM Class I; as well as those lands for which VRM classes have been assigned by the Bishop RMP and by the Imperial Sand Dunes Recreation Area Recreation Area Management Plan (ISDRA RAMP).

SRA = State Recreation Area

SVRA = State Vehicular Recreation Area

SNR = State Natural Reserve

SHP = State Historic Park

III.20.2.2 National Parks, Preserves, Historic Sites, Forests, and National Conservation Lands

III.20.2.2.1 National Parks, Preserves, and Historic Sites

National Park Service (NPS) lands cover approximately 3,989,300 acres, or 18% of the Plan Area. These lands include Joshua Tree National Park, Death Valley National Park, Mojave National Preserve, and Manzanar National Historic Site (Figure III.20-6; Table III.20-3). The majority of Joshua Tree National Park and much of Death Valley National Park are within the Plan Area. Mojave National Preserve and Manzanar National Historic Site are entirely within the Plan Area. Sequoia National Park and Kings Canyon National Park are near but entirely outside the Plan Area's northern boundary. Renewable energy and transmission facility development could potentially be built near land under NPS jurisdiction; but this development near NPS land could potentially affect scenic vistas and dark skies visible from within NPS lands.

III.20.2.2.2 National Forests

No U.S. Forest Service (USFS) lands are within the Plan Area, so USFS is not a DRECP-participating agency. USFS lands either close to or abutting the Plan Area include the Inyo, Sequoia, Los Padres, Angeles, San Bernardino, and Cleveland national forests (Figure III.20-6 and Table III.20-3).

III.20.2.2.3 National Landscape Conservation System

The BLM established the National Landscape Conservation System (NLCS) to conserve, protect, and restore nationally significant landscapes recognized for their outstanding cultural, ecological, and scientific values (BLM 2012). The NLCS includes national monuments, National Conservation Areas, wilderness, Wilderness Study Areas, Wild and Scenic Rivers, National Scenic and Historic Trails, and Conservation Lands of the California Desert. There are no national monuments or National Conservation Areas within the Plan Area.

Chapter III.14 discusses NLCS areas within the Plan Area, including a detailed listing and map of wilderness and Wilderness Study Areas. A discussion of the visual resources of each wilderness and Wilderness Study Area is not included in this visual resources section, but is included in the tabulated acreages of visual resources considered.

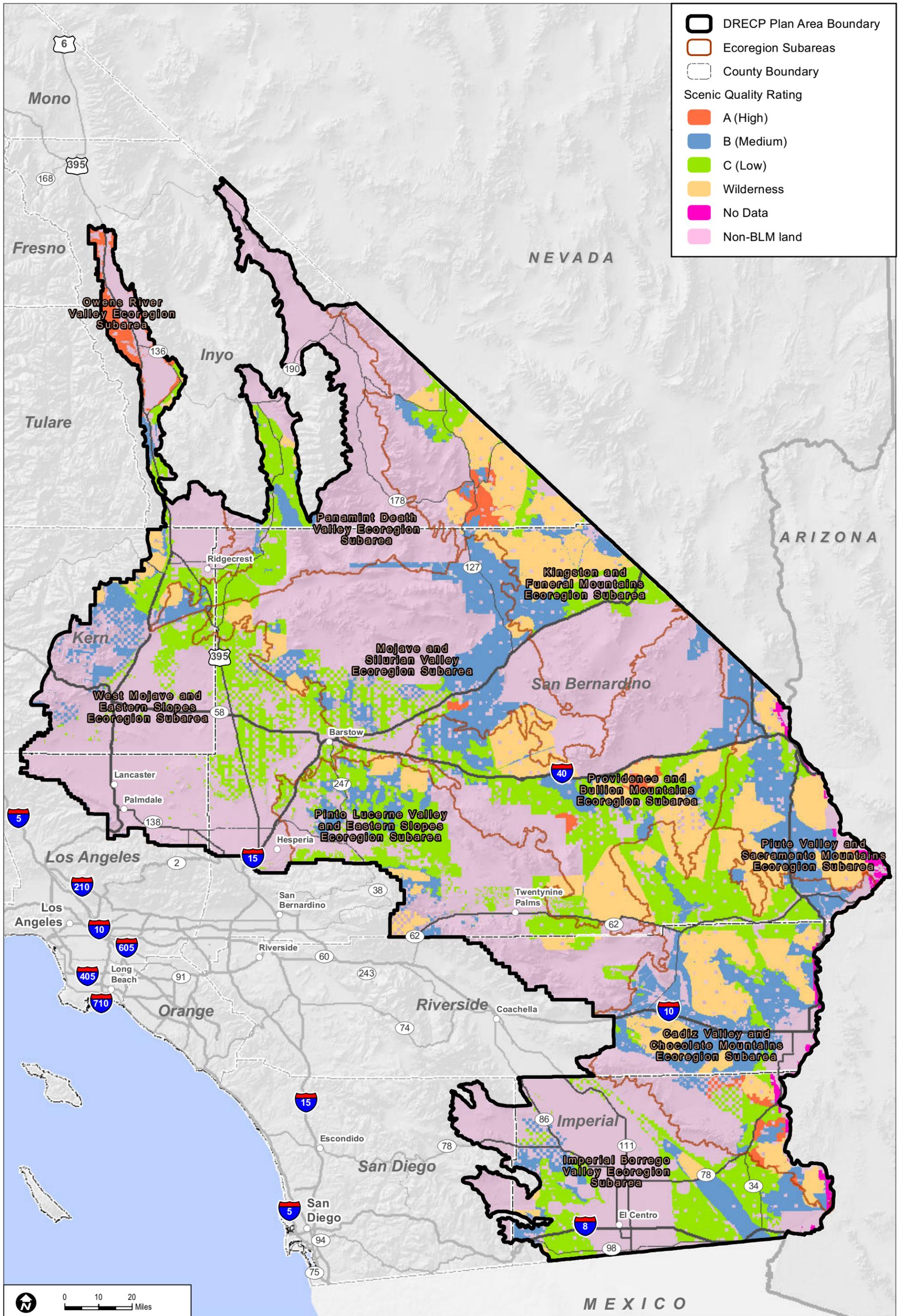
One Wild and Scenic River segment located in the Plan Area is a 24-mile section of the Amargosa River. The Amargosa River is the only free-flowing river in the Mojave Desert's Death Valley region. The river and its surrounding natural areas are east of the southeastern corner of Death Valley National Park. The area is a rare and lush riparian area with few human settlements and unobstructed views of the desert mountains. The Amargosa Wild and Scenic River is also discussed in Chapter III.14.

III.20.2.2.4 National Scenic Byways

The National Scenic Byways Program (FHWA) was established 1991 to recognize, preserve, and enhance selected roads throughout the United States. National scenic byways are recognized by the Secretary of Transportation based upon one or more archeological, cultural, historic, natural, recreational, or scenic qualities (FHWA 2012).

A 56-mile section of the Bradshaw Trail National Backcountry Byway is in the Cadiz Valley and Chocolate Mountains ecoregion subarea. (Table III.20-3). Located in Southeastern Riverside County, with a small segment in Imperial County, this byway traverses mostly public land between the Chuckwalla Mountains and the Chocolate Mountains (FHWA 2012).

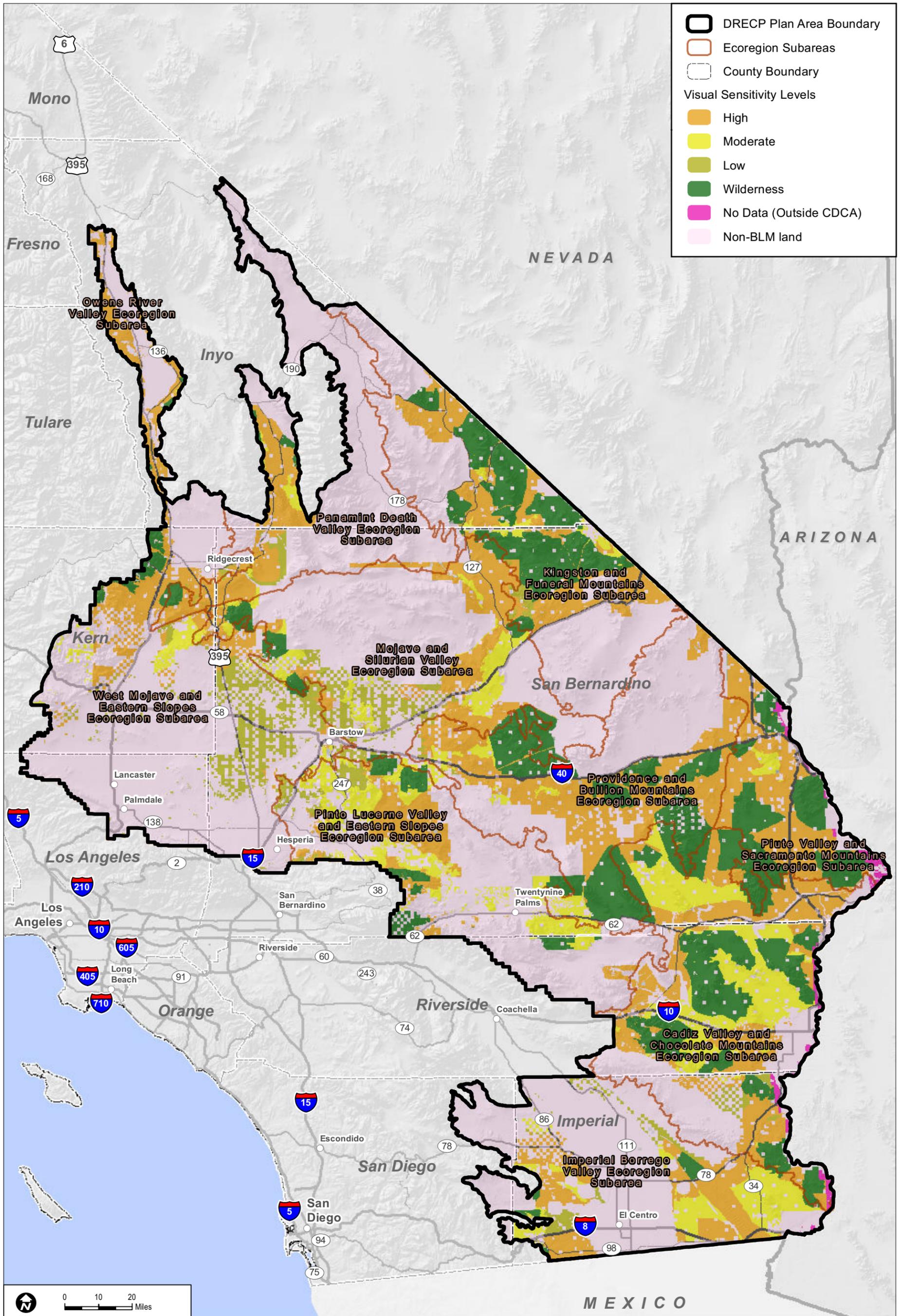
The Sunrise Scenic Byway is in Eastern San Diego County, within the Cleveland National Forest and outside the Plan Area (Table III.20-3). It closely parallels the Pacific Crest Trail and provides panoramic views of the Anza-Borrego Desert State Park (FHWA 2012).



Sources: ESRI (2014); CEC (2013); BLM (2013); CDFW (2013); USFWS (2013)

FIGURE III.20-1
Scenic Quality Rating

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Sources: ESRI (2014); CEC (2013); BLM (2013); CDFW (2013); USFWS (2013)

FIGURE III.20-2

Visual Sensitivity Levels

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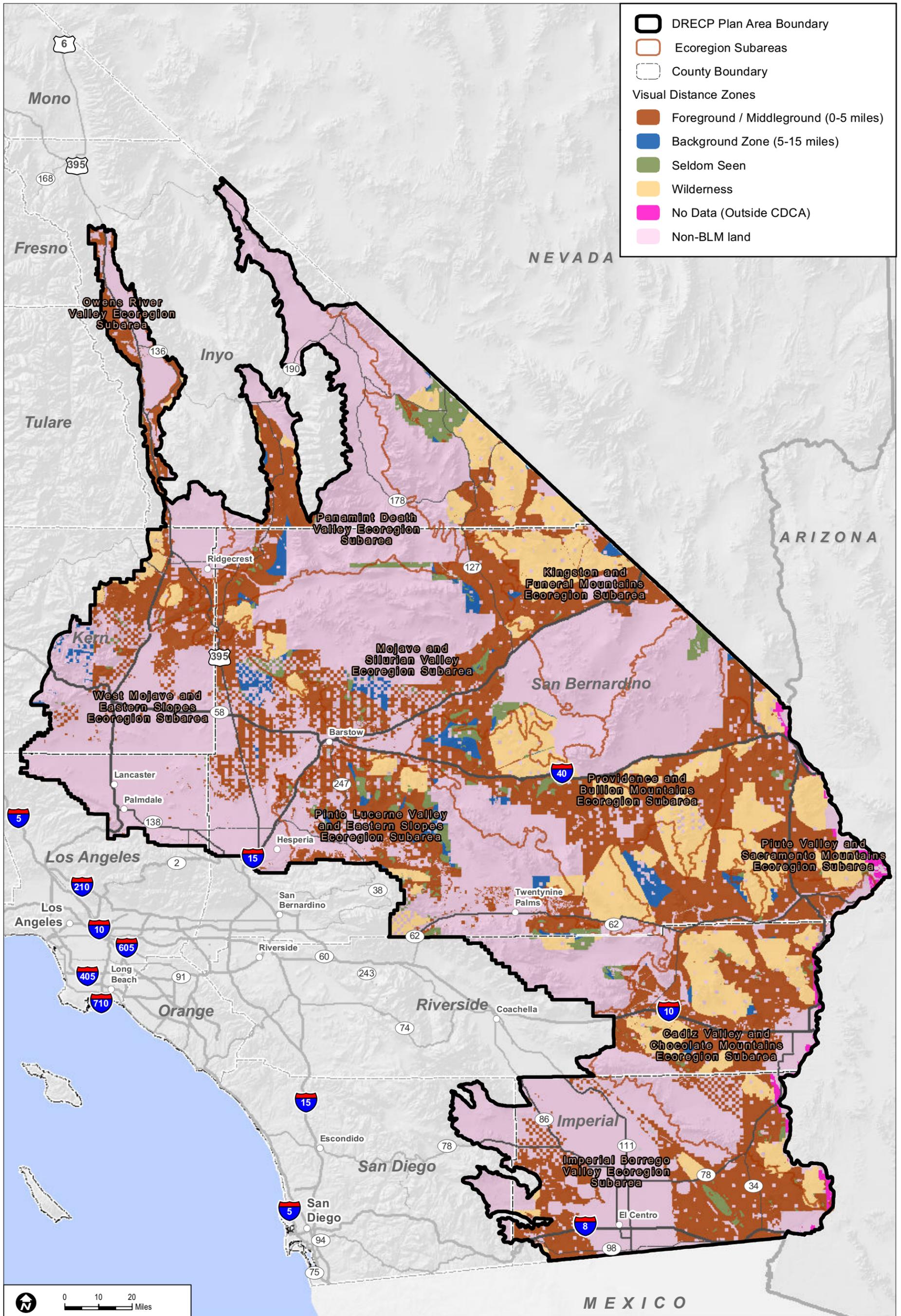
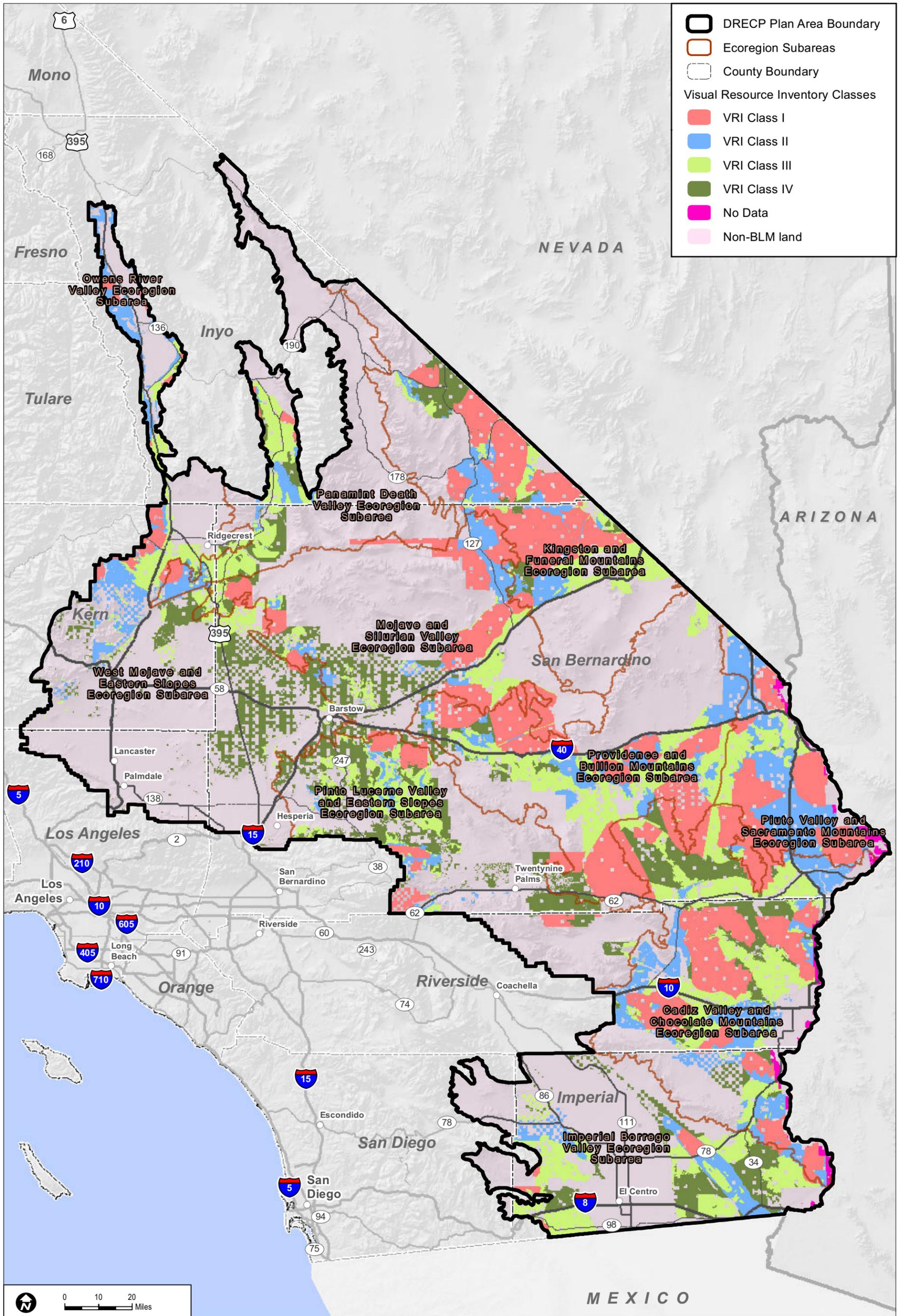


FIGURE III.20-3
Visual Distance Zones

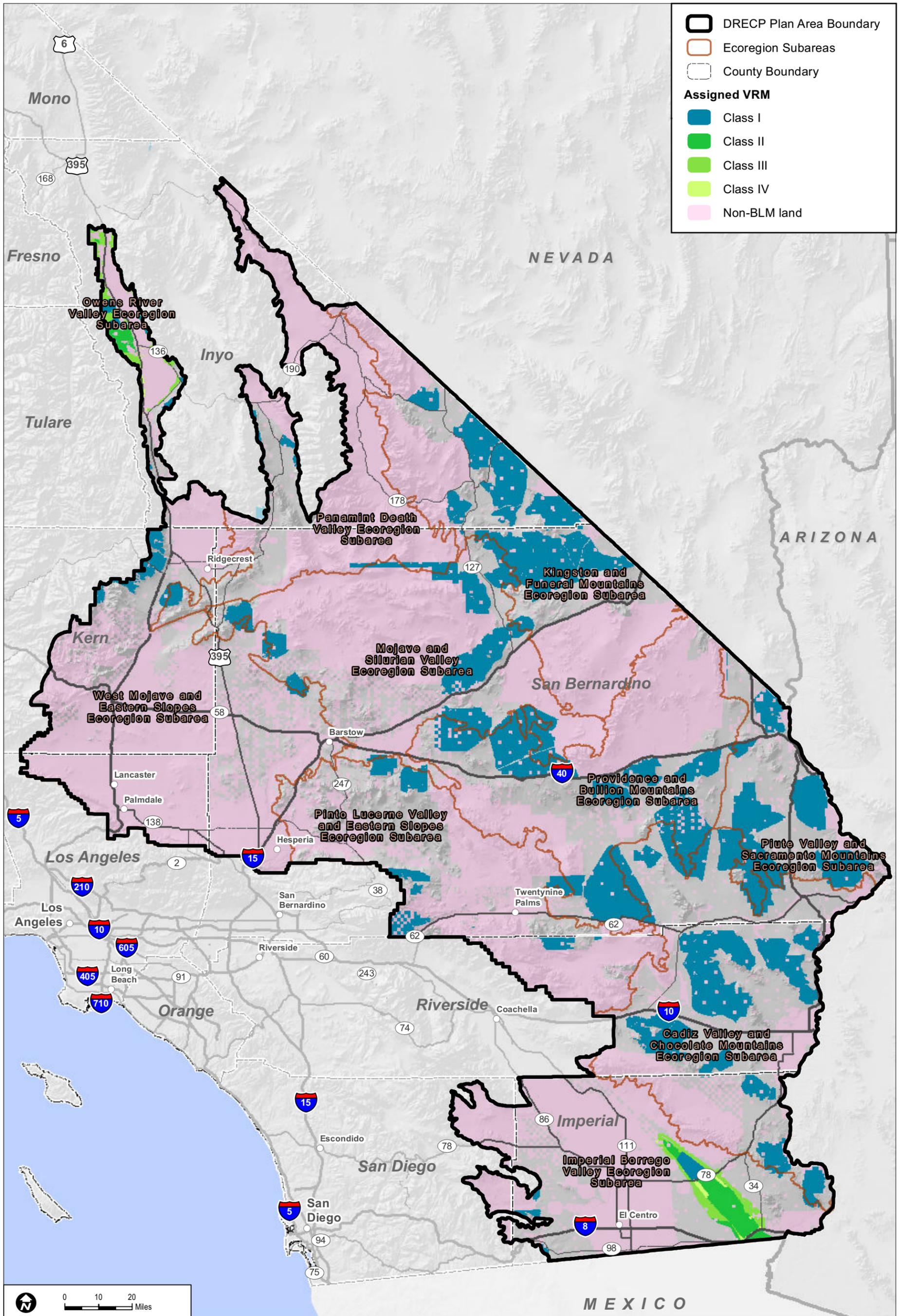
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Sources: ESRI (2014); CEC (2013); BLM (2013); CDFW (2013); USFWS (2013)

FIGURE III.20-4
Visual Resource Inventory Classes

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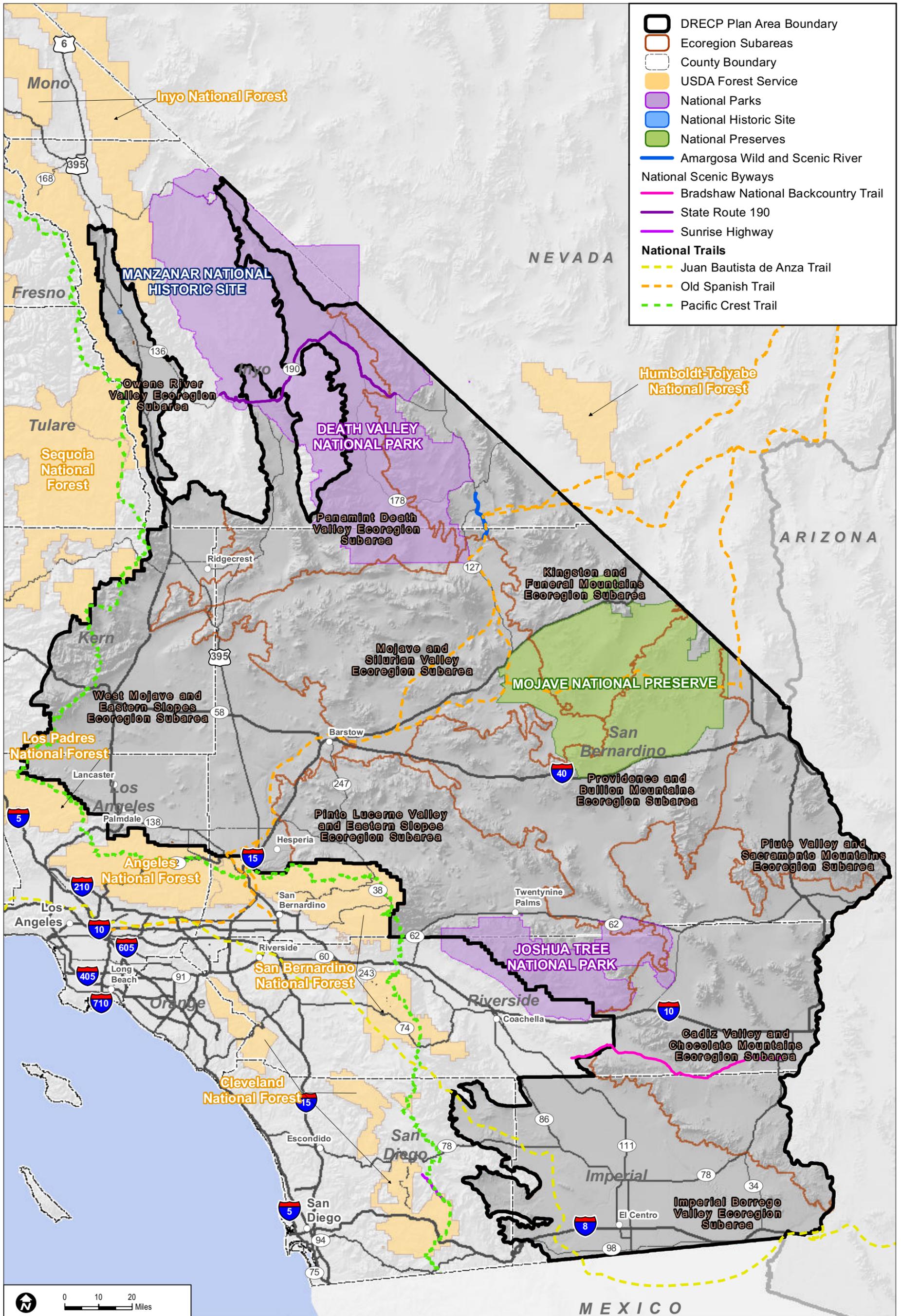


Sources: ESRI (2014); CEC (2013); BLM (2013); CDFW (2013); USFWS (2013)

FIGURE III.20-5

Assigned Visual Resource Management Classes

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Sources: ESRI (2014); CEC (2013); BLM (2013); CDFW (2013); USFWS (2013); USDA (2011); NPS (2012)

FIGURE III.20-6

National Parks, Preserves, Forests, Trails and Scenic Byways

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III.20.2.2.5 National Scenic and Historic Trails

In 1968, Congress established the National Trails System. The BLM and the NPS are two of several agencies responsible for the management of these trails. National Historic Trails closely follow an historic trail or nationally significant travel route. This national designation ensures that historic routes, historic remnants, and artifacts are identified and protected for public use and recreation (NPS 2012).

National Scenic or Historic Trails within the Plan Area include the Pacific Crest National Scenic Trail, the Juan Bautista de Anza National Historic Trail, and the Old Spanish National Historic Trail (Table III.20-3).

The Pacific Crest National Scenic Trail runs 2,650 miles between Mexico and Canada. It is jointly administered by the USFS, BLM, NPS, California State Parks, and the Pacific Crest Trail Association. The 1982 Pacific Trail Comprehensive Management Plan provides the overall strategy and guidance for managing the trail and its significant resources. Approximately 114 miles of the trail pass through the Plan Area in the Pinto and Lucerne Valley ecoregion subarea (11 miles) and the West Mojave and Eastern Slopes ecoregion subarea (103 miles). Points along this scenic trail provide views to various parts of the Plan Area (NPS 2012[a]).

The Juan Bautista de Anza National Historic Trail runs for 1,210 miles in Arizona and California. Approximately 83 miles are in the Imperial Borrego Valley ecoregion subarea. The Juan Bautista de Anza Comprehensive Management and Use Plan, published in 1996, protects the trail's rights-of-way and its cultural and scenic resources. Additional goals include increasing public appreciation and understanding of the trail, encouraging facilities for resource protection and public information and use, and promoting the cooperative management of trail resources and programs. The trail commemorates the 1775-1776 Spanish Expedition, which traveled this route from Mexico to San Francisco. The path taken by the de Anza party is partially on privately owned lands, government military bases, and otherwise inaccessible land. An auto tour route parallels this historic corridor on paved highways throughout Arizona and California (NPS 2012). In the Plan Area, points along this trail feature vistas and panoramic views of the Imperial Valley and Anza-Borrego desert lands. In parts of the California desert, this landscape has changed little since the expedition more than 200 years ago. The landscape's visual integrity gives visitors the opportunity to vicariously experience the conditions of that historic trip.

Approximately 367 miles of the Old Spanish National Historic Trail are within the Plan Area (Figure III.20-6 and Table III.20-3). The trail is over 2,700 miles long and crosses New Mexico, Colorado, Arizona, Utah, Nevada, and California. The NPS is developing the Old Spanish Trail Comprehensive Management Plan, which will provide guidance for identi-

fyng trail routes, protecting trail resources, and enhancing the visitor's experience along the trail. The trails are a combination of indigenous tribal paths and the horse and mule exploration and trade routes of the early 1800s (NPS 2012b). The Old Spanish National Historic Trail is not a contiguous trail, and there are few officially designated hiking trails along the trail corridor. Although portions of the trail are privately owned, there are locations with public access, viewpoints, and interpretive sites for visitors.

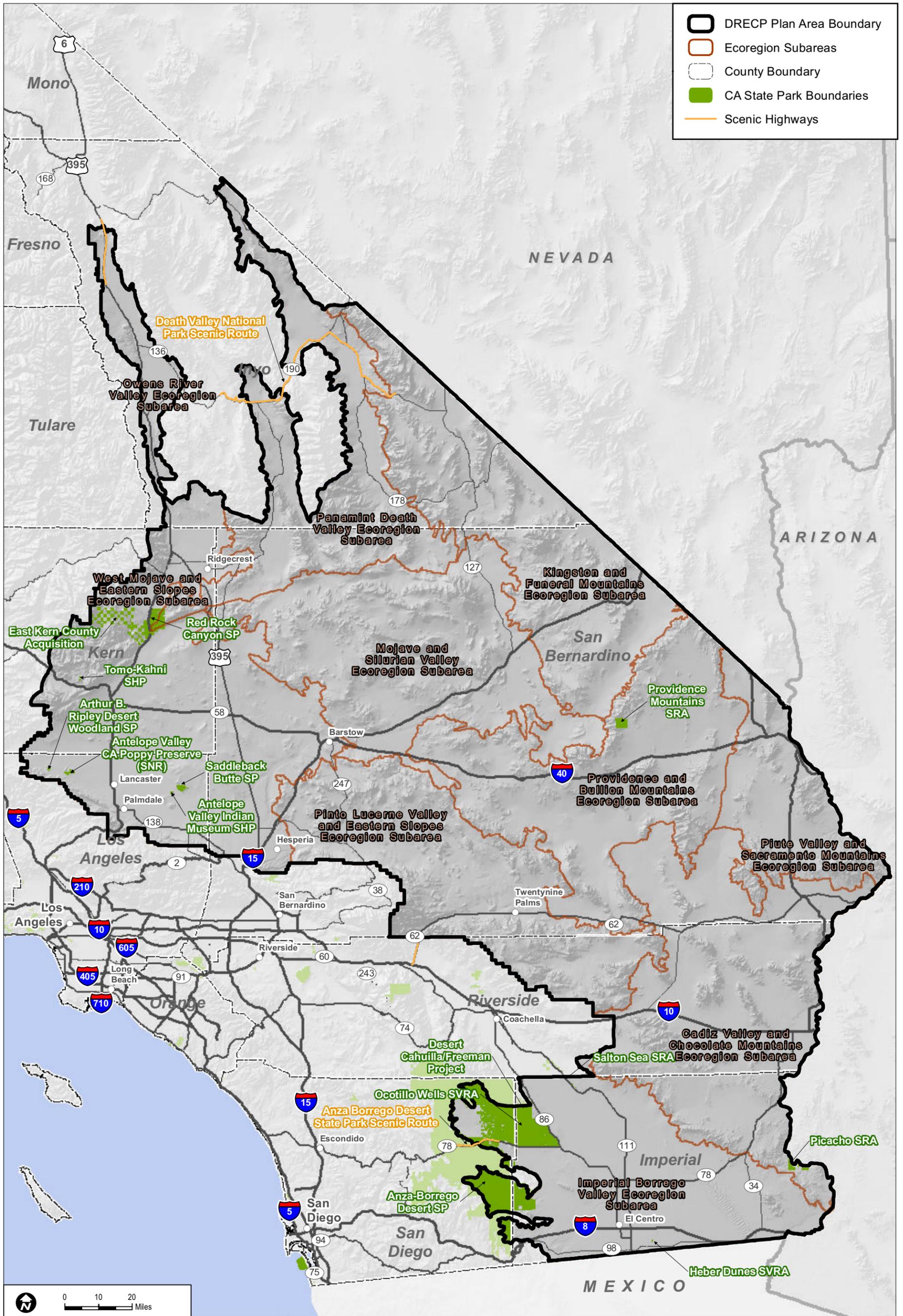
III.20.2.3 State Parks and Scenic Highways

California State Parks were established to provide for the health, inspiration, and education of the people of California by preserving the state's biological diversity, protecting its valuable natural and cultural resources, and creating opportunities for outdoor recreation (California State Parks 2012).

California's Scenic Highway Program was created by the California Legislature in 1963. The purpose of the program is to protect and enhance California's natural beauty and to protect the social and economic values provided by the State's scenic resources (Caltrans 2012).

III.20.2.3.1 State Parks

State parks within the Plan Area include (1) the Anza-Borrego Desert, Red Rock Canyon, Arthur B. Ripley Desert Woodland, and Saddleback Butte state parks; (2) Antelope Valley Indian Museum; (3) Ocotillo Wells State Vehicular Recreation Area (SVRA); (4) Heber Dunes SVRA; (5) Antelope Valley California Poppy Reserve; (6) Providence Mountain State Recreation Area; (7) Picacho State Recreation Area; and (8) Tomo-Kahni State Historic Park (Figure III.20-7; Table III.20-3). Anza-Borrego Desert State Park, a World Biosphere Reserve and National Natural Landmark, is the state's largest park, covering approximately 600,000 acres. It is located in Eastern San Diego County and Western Imperial County. Approximately 210,000 acres of the Anza-Borrego Desert State Park are within the Imperial and Borrego Valley ecoregion subarea. Various locations within this park provide views east of the Yuha Desert, West Mesa Desert, and Imperial Valley lands. Red Rock Canyon State Park features scenic desert cliffs, buttes, and spectacular rock formations. The park is near where the southernmost tip of the Sierra Nevada converges with the El Paso Range. Each tributary canyon is unique, with dramatic shapes and vivid colors (California State Parks 2012). Approximately 7,000 acres of the Red Rock Canyon State Park are within the Panamint and Death Valley ecoregion subarea, and 18,000 acres are within the West Mojave and Eastern Slopes ecoregion subarea.



Sources: ESRI (2014); CEC (2013); BLM (2013); CDFW (2013); USFWS (2013); CA State Parks (2009)

FIGURE III.20-7

State Parks and Scenic Highways

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III.20.2.3.2 State Scenic Highways/Routes

State scenic highways and routes within the Plan Area include SR-78—Anza–Borrego Desert State Park Scenic Route, SR-190—Death Valley National Park Scenic Route, and SR-395 (Figure III.20-7 and Table III.20-3).

SR-78 provides views of Southern California’s low desert scenery. Approximately 6.5 miles of its 18-mile length are within the Imperial and Borrego Valley ecoregion subarea. Extending from the west boundary of the Anza-Borrego Desert State Park to the park’s east boundary, this scenic route offers views of interesting rock formations and, in late winter, blooming wildflowers and cacti (Caltrans 2012). Eastbound travelers have panoramic views of the Anza-Borrego Desert, Badlands, and Lower Borrego Valley.

SR-190 crosses Death Valley from the western park boundary near Darwin Plateau in the southern range of the Inyo Mountains, to Travertine Point east between the Black and Funeral mountains. This scenic route offers travelers diverse views of stark landforms and panoramic vistas (Caltrans 2012). Approximately 61 miles of this scenic route are within the Panamint Death Valley ecoregion subarea.

SR-395 extends north of Fort Independence in Inyo County, and crosses the Owens River Valley with the high mountain ranges of the Eastern Sierra Nevada as its backdrop.

There are no county-designated scenic routes within the Plan Area.

III.20.2.3.3 Existing Built Environment and Renewable Energy Projects

The Plan Area covers more than 35,000 square miles (22,400,000 acres) and includes parts of seven counties, many incorporated cities and towns, and six military installations. Various types of structures, agricultural lands, and transportation and utility infrastructure make up the Plan Area’s visual landscape.

As of October 2013, 53 solar, wind, and geothermal energy projects on 89,000 acres within the Plan Area were either operating or under construction. These projects have a combined generating capacity of 6,250 megawatts (MW) and have introduced new elements into the visual landscape including altered land surfaces, roads, electric converters and substations, piping, transmission lines, solar arrays, towers, turbines, and power plants. These are now part of the existing affected environment for future projects. The Plan presents alternatives for permitting projects that would generate up to 20,000 MW of additional renewable energy, over three times the capacity of existing projects. Figure III.1-2a and Figure III.1-2b show the locations of existing projects, and Table III.1-1 summarizes their respective generating capacities. Additional information is provided in Table 2 of Appendix O.

Renewable energy projects are located primarily in Kern, Los Angeles, Riverside, San Bernardino, and Imperial counties. Thirty of the 53 existing renewable energy projects in the

Plan Area currently are either operational or under construction in the West Mojave and Eastern Slopes ecoregion subarea. Four of the 10 ecoregion subareas have no existing projects.

III.20.3 Summary of Visual Resources and Visually Important Management Units by Ecoregion Subarea

This section summarizes, by ecoregion subarea, the acres or physical dimensions of the visual resources described above. While BLM lands have VRIs, not all have assigned VRM classifications.

The information below in Tables III.20-4 through III.20-13 shows the number of acres or miles, by resource type and ecoregion subarea. The locations of future projects are unknown at this time. The effects on visual resources from developing a project will be determined when a specific project is proposed.

III.20.3.1 Cadiz Valley and Chocolate Mountains Ecoregion Subarea

**Table III.20-4
Visual Resources and Visually Important Management Units: Cadiz Valley and Chocolate Mountain Ecoregion Subarea**

Category	Resource	Extent
BLM Visual Resource Inventory Classes	Class I	786,000 acres
	Class II	448,000 acres
	Class III	589,000 acres
	Class IV	333,000 acres
BLM Visual Resource Management Classes*	Class I	786,000 acres
National Parks and Preserves	Joshua Tree	42,000 acres
National Byways	Bradshaw Trail National Backcountry	56 miles
National Trails	—	—
State Parks	Picacho State Recreation Area	7,000 acres
State Scenic Highways/ Routes	—	—
Wild and Scenic Rivers	—	—

Note: The following general rounding rules were applied to calculated values: values greater than 1,000 were rounded to nearest 1,000; values less than 1,000 and greater than 100 were rounded to the nearest 100; values of 100 or less were rounded to the nearest 10, and therefore totals may not sum due to rounding. In cases where subtotals are provided, the subtotals and the totals are individually rounded. The totals are not a sum of the rounded subtotals; therefore the subtotals may not sum to the total within the table.

* Acres shown for VRM include all Wilderness Study Areas and wilderness, which by BLM policy are assigned VRM Class I. VRM classes have not been assigned to other lands within this ecoregion subarea.

Three renewable energy projects covering approximately 6,000 acres are located in the Cadiz Valley and Chocolate Mountains ecoregion subarea, including the 550 MW Desert Sunlight Solar PV Farm, which occupies approximately 4,000 acres of BLM land. These highly visible projects are adjacent to or in close proximity to I-10 and are part of the existing visual conditions of the area.

III.20.3.2 Imperial and Borrego Valley Ecoregion Subarea

**Table III.20-5
Visual Resources and Visually Important Management Units:
Imperial and Borrego Valley Ecoregion Subarea**

Category	Resource	Extent
BLM Visual Resource Inventory Classes	Class I	53,000 acres
	Class II	143,000 acres
	Class III	395,000 acres
	Class IV	248,000 acres
BLM Visual Resource Management Classes*	Class I	53,000 acres
	Class II	104,000 acres
	Class III	69,000 acres
	Class IV	15,000 acres
National Parks & Preserves	—	—
National Byways	—	—
National Trails	Juan Bautista De Anza National Historic Trail	Less than 100 acres
State Parks	Agua Caliente County Park	500 acres
	Anza-Borrego Desert SP and Wilderness	275,000 acres
	Desert Cahuilla/Freeman Project	300 acres
	Heber Dunes SVRA	300 acres
	Ocotillo Wells SVRA	84,000 acres
	Salton Sea State Recreation Area	400 acres
	SR-78 – Anza-Borrego Desert SP Scenic Route	6.4 miles
Wild and Scenic Rivers	—	—

* Acres shown for VRM include all Wilderness Study Areas and wilderness, which by BLM policy are assigned VRM Class I; as well as those lands for which VRM classes have been assigned by the ISDRA RAMP. VRM classes have not been assigned to other lands within this ecoregion subarea.

Note: The following general rounding rules were applied to calculated values: values greater than 1,000 were rounded to nearest 1,000; values less than 1,000 and greater than 100 were rounded to the nearest 100; values of 100 or less were rounded to the nearest 10, and therefore totals may not sum due to rounding. In cases where subtotals are provided, the subtotals and the totals are individually rounded. The totals are not a sum of the rounded subtotals; therefore the subtotals may not sum to the total within the table.

Eleven renewable energy projects occupying approximately 21,000 acres, with a combined generating capacity of approximately 1,261 MW, are located within the

Imperial Borrego Valley ecoregion subarea. Eight are solar projects, two are geothermal facilities, and one is a wind energy project. The largest is the Ocotillo Express Wind Project, located adjacent to I-8 west of El Centro. These highly visible projects are now part of the area’s existing visual landscape.

III.20.3.3 Kingston and Funeral Mountains Ecoregion Subarea

**Table III.20-6
Visual Resources and Visually Important Management Units:
Kingston and Funeral Mountains Ecoregion Subarea**

Category	Resource	Extent
BLM Visual Resource Inventory Classes	Class I	624,000 acres
	Class II	186,000 acres
	Class III	237,000 acres
	Class IV	147,000 acres
BLM Visual Resource Management Classes*	Class I	624,000 acres
National Parks & Preserves	Death Valley	559,000 acres
	Mojave	583,000 acres
National Byways	SR-190	1.8 miles
National Trails	Old Spanish National Historic Trail	84 miles
State Parks	—	—
State Scenic Highways/ Routes	See SR-190 above	—
Wild and Scenic Rivers	Amargosa River	15 miles

* Acres shown for VRM include all Wilderness Study Areas and wilderness, which by BLM policy are assigned VRM Class I. VRM classes have not been assigned to other lands within this ecoregion subarea.

Note: The following general rounding rules were applied to calculated values: values greater than 1,000 were rounded to nearest 1,000; values less than 1,000 and greater than 100 were rounded to the nearest 100; values of 100 or less were rounded to the nearest 10, and therefore totals may not sum due to rounding. In cases where subtotals are provided, the subtotals and the totals are individually rounded. The totals are not a sum of the rounded subtotals; therefore the subtotals may not sum to the total within the table.

One renewable energy project occupying approximately 3,000 acres and generating 390 MW is in the Kingston and Funeral Mountains ecoregion subarea. This is the Ivanpah Solar Electric Generating System Solar Power Tower Project, which consists of three approximately 450-foot-high power tower units surrounded by ground-mounted heliostat mirrors. The project area is highly visible from I-15 and is within a Conservation Planning Area (CPA). It is surrounded by the Ivanpah Valley Area of Critical Environmental Concern (ACEC) and portions of the Mojave National Preserve, including the nearby Clark Mountains and East Mojave National Scenic Area.

III.20.3.4 Mojave and Silurian Valley Ecoregion Subarea

Table III.20-7
Visual Resources and Visually Important Management Units:
Mojave and Silurian Valley Ecoregion Subarea

Category	Resource	Extent
BLM Visual Resource Inventory Classes	Class I	429,000 acres
	Class II	140,000 acres
	Class III	177,000 acres
	Class IV	254,000 acres
BLM Visual Resource Management Classes*	Class I	429,000 acres
National Parks & Preserves	Death Valley	11,000 acres
	Mojave	232,000 acres
National Byways	—	—
National Trails	Old Spanish National Historic Trail	171 miles
State Parks	—	—
State Scenic Highways/ Routes	—	—
Wild and Scenic Rivers	Amargosa River	8 miles

* Acres shown for VRM include all Wilderness Study Areas and wilderness, which by BLM policy are assigned VRM Class I. VRM classes have not been assigned to other lands within this ecoregion subarea.

Note: The following general rounding rules were applied to calculated values: values greater than 1,000 were rounded to nearest 1,000; values less than 1,000 and greater than 100 were rounded to the nearest 100; values of 100 or less were rounded to the nearest 10, and therefore totals may not sum due to rounding. In cases where subtotals are provided, the subtotals and the totals are individually rounded. The totals are not a sum of the rounded subtotals; therefore the subtotals may not sum to the total within the table.

III.20.3.5 Owens River Valley Ecoregion Subarea

Table III.20-8
Visual Resources and Visually Important Management Units:
Owens River Valley Ecoregion Subarea

Category	Resource	Extent
BLM Visual Resource Inventory Classes	Class I	30,000 acres
	Class II	116,000 acres
	Class III	40,000 acres
	Class IV	1,000 acres
BLM Visual Resource Management Classes*	Class I	30,000 acres
	Class II	27,000 acres
	Class III	60,000 acres
	Class IV	7,000 acres

Table III.20-8
Visual Resources and Visually Important Management Units:
Owens River Valley Ecoregion Subarea

Category	Resource	Extent
National Parks and Preserves	—	—
National Byways	—	—
National Trails	—	—
National Historic Site	Manzanar	800 acres
State Parks	—	—
State Scenic Highways/ Routes	SR-395 – Owens River Valley	18 miles
Wild and Scenic Rivers	—	—

* Acres shown for VRM include all Wilderness Study Areas and wilderness, which by BLM policy are assigned VRM Class I; as well as those lands for which VRM classes have been assigned by the Bishop RMP. VRM Classes have not been assigned to other lands within this ecoregion subarea.

Note: The following general rounding rules were applied to calculated values: values greater than 1,000 were rounded to nearest 1,000; values less than 1,000 and greater than 100 were rounded to the nearest 100; values of 100 or less were rounded to the nearest 10, and therefore totals may not sum due to rounding. In cases where subtotals are provided, the subtotals and the totals are individually rounded. The totals are not a sum of the rounded subtotals; therefore the subtotals may not sum to the total within the table.

One renewable energy project occupying approximately 100 acres and generating 1,378 MW is located in the Owens River Valley ecoregion subarea, at Naval Air Weapons Station China Lake. It is part of the visual landscape associated with the Naval facility and agricultural and residential development in the area.

III.20.3.6 Panamint Death Valley Ecoregion Subarea

Table III.20-9
Visual Resources and Visually Important Management Units:
Panamint Death Valley Ecoregion Subarea

Category	Resource	Extent
BLM Visual Resource Inventory Classes	Class I	60,000 acres
	Class II	87,000 acres
	Class III	230,000 acres
	Class IV	79,000 acres
BLM Visual Resource Management Classes*	Class I	60,000 acres
National Parks & Preserves	Death Valley	1,188,000 acres
National Byways	SR-190 – Death Valley National Park Scenic Route	59 miles

Table III.20-9
Visual Resources and Visually Important Management Units:
Panamint Death Valley Ecoregion Subarea

Category	Resource	Extent
National Trails	—	—
State Parks	Red Rock Canyon	7,000 acres
State Scenic Highways/ Routes	See SR-190 above	—
Wild and Scenic Rivers	—	—

* Acres shown for VRM include all Wilderness Study Areas and wilderness, which by BLM policy are assigned VRM Class I. VRM classes have not been assigned to other lands within this ecoregion subarea.

Note: The following general rounding rules were applied to calculated values: values greater than 1,000 were rounded to nearest 1,000; values less than 1,000 and greater than 100 were rounded to the nearest 100; values of 100 or less were rounded to the nearest 10, and therefore totals may not sum due to rounding. In cases where subtotals are provided, the subtotals and the totals are individually rounded. The totals are not a sum of the rounded subtotals; therefore the subtotals may not sum to the total within the table.

III.20.3.7 Pinto Lucerne Valley and Eastern Slopes Ecoregion Subarea

Table III.20-10
Visual Resources and Visually Important Management Units:
Pinto Lucerne Valley and Eastern Slopes Ecoregion Subarea

Category	Resource	Extent
BLM Visual Resource Inventory Classes	Class I	152,000 acres
	Class II	68,000 acres
	Class III	250,000 acres
	Class IV	404,000 acres
BLM Visual Resource Management Classes*	Class I	152,000 acres
National Parks & Preserves	Joshua Tree	540,000 acres
	Mojave Preserve	500 acres
National Byways	—	—
National Trails	Pacific Crest National Scenic Trail	11 miles
	Old Spanish National Historic Trail	2 miles
State Parks	—	—
State Scenic Highways/ Routes	—	—
Wild and Scenic Rivers	—	—

* Acres shown for VRM include all Wilderness Study Areas and wilderness, which by BLM policy are assigned VRM Class I. VRM classes have not been assigned to other lands within this ecoregion subarea.

Note: The following general rounding rules were applied to calculated values: values greater than 1,000 were rounded to nearest 1,000; values less than 1,000 and greater than 100 were rounded to the nearest 100; values of 100 or less were

rounded to the nearest 10, and therefore totals may not sum due to rounding. In cases where subtotals are provided, the subtotals and the totals are individually rounded. The totals are not a sum of the rounded subtotals; therefore the subtotals may not sum to the total within the table.

Seven relatively small renewable energy projects occupying approximately 400 acres and generating approximately 45.6 MW are in the Pinto Lucerne Valley and Eastern Slopes ecoregion subarea. Four of these projects above are in relative close proximity to each other north of Joshua Tree National Park. The three other projects are located southwest of Barstow, either alongside of or in close proximity to I-15.

III.20.3.8 Piute Valley and Sacramento Mountains Ecoregion Subarea

Table III.20-11
Visual Resources and Visually Important Management Units:
Piute Valley and Sacramento Mountains Ecoregion Subarea

Category	Resource	Extent
BLM Visual Resource Inventory Classes	Class I	404,000 acres
	Class II	360,000 acres
	Class III	140,000 acres
	Class IV	2,000 acres
BLM Visual Resource Management Classes*	Class I	404,000 acres
National Parks & Preserves	Mojave	15,000 acres
National Byways	—	—
National Trails	Old Spanish National Historic Trail	14 miles
State Parks	—	—
State Scenic Highways/ Routes	—	—
Wild and Scenic Rivers	—	—

* Acres shown for VRM include all Wilderness Study Areas and wilderness, which by BLM policy are assigned VRM Class I. VRM classes have not been assigned to other lands within this ecoregion subarea.

Note: The following general rounding rules were applied to calculated values: values greater than 1,000 were rounded to nearest 1,000; values less than 1,000 and greater than 100 were rounded to the nearest 100; values of 100 or less were rounded to the nearest 10, and therefore totals may not sum due to rounding. In cases where subtotals are provided, the subtotals and the totals are individually rounded. The totals are not a sum of the rounded subtotals; therefore the subtotals may not sum to the total within the table.

III.20.3.9 Providence and Bullion Mountains Ecoregion Subarea

Table III.20-12
Visual Resources and Visually Important Management Units:
Providence and Bullion Mountains Ecoregion Subarea

Category	Resource	Extent
BLM Visual Resource Inventory Classes	Class I	606,000 acres
	Class II	230,000 acres
	Class III	468,000 acres
	Class IV	105,000 acres
BLM Visual Resource Management Classes*	Class I	606,000 acres
National Parks & Preserves	Joshua	22,000 acres
	Mojave	649,000 acres
National Byways	—	—
National Trails	Old Spanish National Historic Trail	28 miles
State Parks	Mitchell Caverns Natural Preserve	600 acres
	Providence Mountains State Recreation Area	6,000 acres
State Scenic Highways/ Routes	—	—
Wild and Scenic Rivers	—	—

* Acres shown for VRM include all Wilderness Study Areas and wilderness, which by BLM policy are assigned VRM Class I. VRM classes have not been assigned to other lands within this ecoregion subarea.

Note: The following general rounding rules were applied to calculated values: values greater than 1,000 were rounded to nearest 1,000; values less than 1,000 and greater than 100 were rounded to the nearest 100; values of 100 or less were rounded to the nearest 10, and therefore totals may not sum due to rounding. In cases where subtotals are provided, the subtotals and the totals are individually rounded. The totals are not a sum of the rounded subtotals; therefore the subtotals may not sum to the total within the table.

III.20.3.10 West Mojave and Eastern Slopes Ecoregion Subarea

Table III.20-13
Visual Resources and Visually Important Management Units:
West Mojave and Eastern Slopes Ecoregion Subarea

Category	Resource	Extent
BLM Visual Resource Inventory Classes	Class I	84,000 acres
	Class II	140,000 acres
	Class III	213,000 acres
	Class IV	433,000 acres
BLM Visual Resource Management Classes*	Class I	84,000 acres
National Parks & Preserves	—	—

Table III.20-13
Visual Resources and Visually Important Management Units:
West Mojave and Eastern Slopes Ecoregion Subarea

Category	Resource	Extent
National Preserves	—	—
National Trails	Pacific Crest National Scenic Trail Old Spanish National Historic Trail	103 miles 68 miles
State Parks	Antelope Valley California Poppy Preserve Antelope Valley Indian Museum State Historic Park Arthur B. Ripley Desert Woodland Antelope Valley Indian Museum Historic Park Hagen Canyon Natural Preserve Red Cliffs Natural Preserve Red Rock Canyon Saddleback Butte Tomo-Kahni State Historic Park	2,000 acres 400 acres 600 acres 400 acres 1,000 acres 400 acres 18,000 acres 3,000 acres 600 acres
State Scenic Highways/ Routes	—	—
Wild and Scenic Rivers	—	—

* Acres shown for VRM include all Wilderness Study Areas and wilderness, which by BLM policy are assigned VRM Class I. VRM classes have not been assigned to other lands within this ecoregion subarea.

Note: The following general rounding rules were applied to calculated values: values greater than 1,000 were rounded to nearest 1,000; values less than 1,000 and greater than 100 were rounded to the nearest 100; values of 100 or less were rounded to the nearest 10, and therefore totals may not sum due to rounding. In cases where subtotals are provided, the subtotals and the totals are individually rounded. The totals are not a sum of the rounded subtotals; therefore the subtotals may not sum to the total within the table.

Thirty renewable energy projects, occupying approximately 57,000 acres with a generating capacity of approximately 6,250 MW, are in the West Mojave and Eastern Slopes ecoregion subarea.

These are a mix of wind and solar projects, the larger being wind farms. They have introduced considerable visual changes in the region and are now part of the existing visual landscape. One of these projects is located within Edwards Air Force Base.

III.20.4 Bureau of Land Management Land Use Plan Amendment

The visual resource elements of lands that fall within the BLM Land Use Plan Amendment (LUPA) include lands inventoried as VRI classes I-IV and designated as VRM classes I-IV. The planning area also contains areas with visual values as a component of their conservation such as NLCS lands, National Byway segments, National Trails, National Historic Sites and Wild and Scenic Rivers. Acres or miles of

these BLM-administered resources are shown in Table III.20-14. The BLM LUPA area is described in Chapter III.1 and shown in Figure I.0-2.

Table III.20-14
Visual Resources and Visually Important Management Units of the BLM LUPA
Affected Environment (All Ecoregion Subareas)

Category	Resource	Extent
BLM Visual Resource Inventory Classes	Class I	3,228,000 acres
	Class II	1,920,000 acres
	Class III	2,740,000 acres
	Class IV	2,006,000 acres
BLM Visual Resource Management Classes*	Class I	3,228,000 acres
	Class II	131,000 acres
	Class III	130,000 acres
	Class IV	22,000 acres
National Byways	Bradshaw Trail National Backcountry	56 miles
	SR-190 Death Valley National Park Scenic Route	60.7 miles
National Trails	Juan Bautista De Anza National Historic Trail	82.7 miles
	Old Spanish National Historic Trail	366.8 miles
	Pacific Crest National Scenic Trail	114 miles
National Historic Site	Manzanar	Trace
Wild and Scenic Rivers	Amargosa River	22.7 miles

* Acres shown for VRM include all Wilderness Study Areas and wilderness, which by BLM policy are assigned VRM Class I; as well as those lands for which VRM classes have been assigned by the Bishop RMP and by the ISDRA RAMP).

Note: The following general rounding rules were applied to calculated values: values greater than 1,000 were rounded to nearest 1,000; values less than 1,000 and greater than 100 were rounded to the nearest 100; values of 100 or less were rounded to the nearest 10, and therefore totals may not sum due to rounding. In cases where subtotals are provided, the subtotals and the totals are individually rounded. The totals are not a sum of the rounded subtotals; therefore the subtotals may not sum to the total within the table.

III.20.5 Natural Community Conservation Plan

The affected environment for the Natural Community Conservation Plan (NCCP) is the same as that described for the entire Plan Area. While there are Department of Defense (DOD) lands and tribal lands within the Plan Area, the Plan does not analyze effects on these lands so they are not included in the description of the affected environment.

III.20.6 General Conservation Plan

The affected environment for the General Conservation Plan (GCP) includes a subset of the lands covered by Plan-wide analysis and the NCCP. In addition to excluding DOD and tribal lands, the GCP lands exclude all other federal lands (e.g., BLM-administered public lands, national parks).

III.20.7 Visual Resources Outside of Plan Area

III.20.7.1 Transmission Outside of the Plan Area

Though it is feasible to characterize existing visual conditions in identified transmission corridors, project-level analyses are required to determine the actual impacts of specific future projects on visual resources. The methodology used for project-level analyses varies depending on the agency with jurisdiction over the land considered. Analyses of visual impacts on BLM lands use BLM's Visual Resource Management (VRM) system to identify visual contrast (described in detail in Section III.20.1.1.2), which is then analyzed through the NEPA process. For facilities on lands administered by the Angeles, San Bernardino, and Cleveland national forests, the analytical approach is described in the U.S. Forest Service's Scenery Management System (SMS). For projects subject to the California Environmental Quality Act (CEQA), the analysis includes criteria established in the CEQA guidelines to determine the significance of impacts to aesthetics and visual resources.

III.20.7.1.1 Transmission Lines

Most new transmission lines connecting renewable energy facilities in the Plan Area to load centers would be located adjacent to or in close proximity to existing transmission lines, within existing corridors. New transmission lines would introduce strong vertical elements (towers) into the landscape. If located close to other towers, this would increase these vertical elements in a viewshed. Visible but less prominent horizontal elements (conductors) would be visible between towers. In addition, depending on aviation safety requirements, FAA may require that safety lights be installed on some towers and marker balls be installed on some conductor spans between towers.

Outside the Plan Area, transmission lines leading south and west to load centers in the Los Angeles and San Diego regions would traverse two distinct landscapes: mountain and valley terrain and developed land. Southern California's populated coastal and valley areas are separated from the inland Mojave Desert by mountains. Most lines would traverse these mountains. Although there are pockets of development, these mountainous areas are sparsely inhabited and primarily on public land. Outside of the desert, extensive suburban and dense urban development occupies much of the land between the mountains and the coast and within the valleys between mountain ranges. There often is a sharp line of demarcation between the two landscape conditions because of ownership and constructability, with the mountains rising sharply from built-up flat coastal and valley terrain.

After passing through the Tehachapi Mountains, a transmission line heading north out of the Plan Area to the San Francisco Bay Area would be sited in the I-5 corridor and parallel existing transmission lines. Except for the mountains separating the Plan Area from the

Central Valley, the landscape along this alignment is agricultural in either orchards or cropland on the valley floor or in foothill grassland.

III.20.7.1.1.1 San Diego Area

New transmission lines from the Plan Area to load centers in the San Diego area would be located in or near the existing Sunrise 500/230 kV transmission line corridor, which extends from Imperial County to substations near Alpine (Suncrest Substation) and Poway (Sycamore Substation). The transmission line corridor roughly parallels and runs alternately north and south of Interstate 8, and is visible at locations where it either crosses or is near the highway.

From Ocotillo in Imperial County to Alpine, in San Diego County, the alignment is largely in desert terrain characterized by flat valley floors, outwash plains, and rugged mountains. The landscape can be described as remote/rural environment. Much of this area is public land administered by either BLM or the USFS (Cleveland National Forest). The visual landscape is characterized by mountains, inter-mountain valleys, sparse low-lying vegetation, and relatively few public roads. The alignment crosses the Pacific Crest National Scenic Trail near Campo and Buckman Springs. Some small communities and pockets of rural development are along the desert portion of the alignment, but overall population density is very low. There is agricultural activity in some valley locations. Transmission lines, pads, and access roads located in this landscape could potentially be visible over many miles.

Starting at Alpine and continuing west, the alignment traverses a mixed rural and suburban landscape that extends through Lakeside to Poway. Much of the alignment is situated on ridges and slopes above local roads and developed areas. Although not as sparse as in the eastern portion of the alignment, natural vegetation is primarily low lying. Suburbanization has resulted in taller planted vegetation around properties and along some roads, but this planted vegetation is not found in the alignment itself. The visibility of transmission lines in this landscape varies greatly, depending on the location of the viewer and the proximity of trees, buildings, or landforms that could block sightlines.

The Sunrise alignment corridor does not pass through any highly urbanized landscapes with closely built, multistory buildings.

III.20.7.1.1.2 Los Angeles Area

Power from the Plan Area into load centers in the Los Angeles area would be delivered via the Vincent Substation located south of the City of Palmdale, in Northern Los Angeles County. From the Vincent Substation, transmission lines would follow two different paths. One would be a 500 kV line along the existing Tehachapi Renewable Transmission Project (TRTP) Segment 11 corridor, which would deliver power to the Mesa Substation in

Monterey Park and the Lighthipe Substation near Paramount. A second 500 kV line would be in the existing TRTP segments 6 and 7 corridor, located east of the TRTP Segment 11 corridor, which would deliver power from Vincent Substation to Mesa Substation.

From the Vincent Substation near Highway 14 to just north of Interstate 210 (I-210), both the TRTP Segment 11 and segments 6 and 7 corridors traverse the rugged mountain terrain of the Angeles National Forest (ANF). Both corridors cross the Pacific Crest National Scenic Trail. As it leaves the ANF, TRTP Segment 11 skirts Altadena on the north; the segments 6 and 7 corridors leave USFS lands just east of Bradbury. Within the ANF, both routes are characterized by steep mountainous terrain and low-lying vegetation.

Upon leaving the ANF, the transmission line alignments immediately enter and cross the dense suburban landscape of the I-210 and I-10 corridors. There is little transition between the undeveloped forestland and the highly developed suburban and urban landscapes. The visual character in this built environment is dominated by single-family residential properties and local streets. The two TRTP alignments meet at Mesa Substation. South from Mesa Substation to Lighthipe Substation, the transmission corridor traverses dense suburban development characterized by a mix of single-family and multifamily residential, commercial, and light industrial development. The corridor ROW itself supports open space and agricultural uses.

In addition to transmission lines out of Vincent Substation, an upgraded 320 kV direct current (DC) line between Substation 7 south of Hesperia and substations B and 8 near the city of South Gate would traverse landscapes similar to those described for the TRTP Segment 11 and segments 6 and 7 corridors.

As with the two other 500 kV transmission corridors from Vincent Substation, a new 500 kV transmission line from Vincent Substation to an upgraded Los Angeles Department of Water and Power Station E Substation in North Hollywood would traverse mountainous USFS lands of the ANF before emerging into urbanized greater Los Angeles just north of I-210 at Lake View Terrace. The existing ROW through the urban area supports open space and agricultural uses and passes through residential, commercial, and light-industrial areas.

III.20.7.1.1.3 North Palm Springs-Riverside Area

Renewable energy from the Plan Area would also flow to load centers through transmission lines along the I-10 corridor. Multiple 500 kV lines would be sited in existing transmission corridors. Depending on need, varying numbers of circuits would be required in individual inter-substation segments of the corridor. The primary corridor would be between Colorado River Substation (CRS) within the Plan Area and the Devers, Rancho Vista, and Lugo substations to the west, outside the Plan Area. Other corridors in the North Palm

Springs-Riverside Area would be between Imperial Irrigation District's (IID's) new IID Midway X Substation in the Plan Area and the Devers Substation, between the Devers and Valley substations, and between the Rancho Vista and Serrano substations.

The CRS to Lugo corridor passes through both undeveloped and developed landscapes. The portion of the corridor outside the Plan Area along I-10 begins near Desert Center. From there to Devers Substation is desert, characterized by flat outwash plains and rugged mountains. The corridor is primarily in Chuckwalla Valley and Shavers Valley, between the Eagle Mountains to the north and the Orocopia and Chuckwalla mountains to the south. Vegetation is sparse and surface disturbance and physical elements introduced into the landscape are potentially visible over considerable distances, except in locations where they are screened from view by mountains. Existing transmission lines and gas pipelines parallel the highway. Transmission lines would be visible to visitors in some areas of Joshua Tree National Park, north of I-10; to residents in isolated desert communities; to interstate highway travelers; and to visitors to recreation areas and ACECs on BLM lands. Joshua Tree National Park is internationally noted for its dark night skies, making night aviation safety lighting on structures (transmission towers, power towers, wind turbines) a potential concern.

Continuing west, the transmission line corridor enters the Coachella Valley near Indio. The landscape remains sparsely vegetated desert, but with some areas of extensive development. The corridor in and out of Devers Substation is north of I-10, while most residential and commercial development in Palm Springs and other communities is south of I-10. The corridor in this area also passes through extensive wind farm developments on BLM and private lands. Farther west, the corridor passes through the San Gorgonio Pass and north of developed areas in Cabazon, Banning, and Beaumont. The character of these communities is suburban residential and commercial, intermixed with pastureland. Development becomes increasingly frequent and dense as the corridor moves west.

The corridor crosses The Badlands, a mountainous area south of I-10 and north of Moreno Valley. This area roughly parallels San Timoteo Canyon Road for part of its length and is characterized by increasingly dense shrub vegetation and hilly terrain. Emerging from The Badlands south of Loma Linda, the corridor continues west through a mixture of residential, commercial, and light industrial uses in communities south of I-10. The corridor turns north through an industrial area of Rancho Cucamonga and parallels I-15 before leaving the developed valley floor and skirting the east end of the San Gabriel Mountains. Continuing north and northeast, the corridor passes through mountainous areas with dense shrub vegetation. The corridor crosses the Pacific Crest National Scenic Trail near Highway 138 and continues on to Lugo Substation near Hesperia.

The Out of Plan Area corridor for transmission from the new IID Midway X Substation runs from the Imperial County line to Devers Substation and traverses sparsely vegetated desert. This corridor is east of the Salton Sea and continues northwest to the east of the Coachella Canal before crossing the I-10 corridor east of Indio. After crossing I-10, the corridor continues west into Devers Substation.

The corridor to Valley Substation emerges from Devers Substation and crosses to the south side of I-10, passing through small residential areas near Cabazon and Banning, and traverses the lower elevations of the San Jacinto Mountains before descending into irrigated agricultural land between Gillman Springs Road and Ramona Expressway. From there the corridor ascends into the hilly terrain of Lake View Mountains then descends to open land and an area of mixed residential and commercial uses before reaching Valley Substation in Romoland.

The corridor extending from Rancho Vista Substation to Serrano Substation would pass through industrial development east of I-15 before crossing into a mixed suburban/agricultural area south of Highway 60. The route would pass along the north side of the suburban community of Eastvale, continuing east through a mix of residential, commercial, and agricultural areas before reaching the Chino Hills near Highway 71. These rolling hills are characterized by grassland and shrub vegetation. The corridor emerges from the hills in Yorba Linda and continues south across Yorba Linda Boulevard and Highway 91. This area has extensive dense suburban residential and commercial development. The corridor continues across the Anaheim Hills Golf Course and the Anaheim Hills community before arriving at the Serrano Substation on Cannon Street.

III.20.7.1.1.4 Central Valley

The transmission corridor from Whirlwind Substation in the Plan Area crosses over the Tehachapi Mountains to the San Joaquin Valley south of Arvin, then continues north along the I-5 corridor, connecting the Midway, Gates, and Los Banos substations before ending at the Tesla Substation near Tracy.

Heading northwest from Whirlwind Substation near Rosamond, the corridor crosses the Pacific Crest National Scenic Trail and enters the Tehachapi Mountains, crossing the crest south of Cummings Mountain at about 5,000 feet elevation. The eastern slopes of the mountains are characterized by sparse shrub vegetation and semi-desert conditions. The elevations above about 2,500 feet support grassland and oak woodland vegetation. Descending into the San Joaquin Valley, the mountains and foothills are primarily grassland. The mountains are very sparsely populated, and there are no roads or residences in the corridor through the mountains.

The northern edge of the Tehachapi Mountains transitions immediately to irrigated agricultural land with scattered farms and a grid road pattern. The corridor continues through this flat agricultural land, crossing Highway 99 and turning north to parallel I-5. West of Rosedale, the corridor doglegs west across I-5, then heads north again at Buttonwillow, at Midway Substation. From the substation, the corridor continues north, again crossing to the east side of I-5 and continuing through croplands and orchards. In the general vicinity of Lost Hills, the corridor crosses pastureland, fallow land, and uncultivated land. The corridor continues through irrigated cropland and orchards near Kettleman City. The corridor alignment then crosses to the west of I-5 and continues north in the rolling grassland foothills of the coast ranges, including the Big Blue Hills and Panoche Hills. From Kettleman City north to the end of the corridor, I-5 essentially marks the boundary between agricultural land to the east and foothills to the west. Near Patterson, the corridor moves northwest from I-5 to follow Interstate 580 to the Tesla Substation west of Tracy, in the Altamont Pass.

III.20.7.1.2 Substations

Construction of entirely new substations outside the Plan Area to accommodate power deliveries from the desert is not necessary. New transmission lines carrying power from the Plan Area would tie into existing substations. These would need to be upgraded or enlarged in order to handle the increased electric loads. This would require installation of higher-rated electrical equipment, construction of new transformer banks, and installation of dead-end structures. Depending on the available capacity or space at a substation, necessary changes could be made within the existing fence line or could require expansion of the facility beyond its current footprint.

III.20.7.2 Bureau of Land Management Land Use Plan Amendment Decisions Outside of the Plan Area

The BLM LUPA decisions affecting visual resources extend to all BLM-administered CDCA lands, including those outside the Plan Area. As described in Section III.1 and shown in Figure I.0-2b, these lands are either next to or near the Plan Area.

As shown in Table III.20-15, the visual resource elements in this area include lands that BLM has classified as VRI classes I-IV, segments of National Byways and National Trails, and a segment of the Cottonwood Creek Wild and Scenic River.

Table III.20-15
Visual Resources and Visually Important Management Units of the BLM LUPA
Affected Environment Outside the Plan Area (All Ecoregion Subareas)

Category	Resource	Extent in CDCA and Outside of Plan Area
BLM Visual Resource Inventory Classes	Class I	625,000 acres
	Class II	272,000 acres
	Class III	128,000 acres
	Class IV	35,000 acres
BLM Visual Resource Management Classes*	Class I	630,000 acres
	Class II	119,000 acres
	Class III	14,000 acres
	Class IV	11,000 acres
National Byways	Bradshaw Trail National Backcountry Byway	8.4 miles
	SR-190 Death Valley National Park Scenic Route	0.1 miles
National Trails	Juan Bautista De Anza National Historic Trail	Trace
	Old Spanish National Historic Trail	Trace
	Pacific Crest National Scenic Trail	18 miles
Wild and Scenic Rivers	Cottonwood Creek	4.4 miles

* Acres shown for VRM include all Wilderness Study Areas and wilderness, which by BLM policy are assigned VRM Class I; as well as those lands for which VRM classes have been assigned by the Bishop RMP. (None of the lands assigned VRM Classes by the ISDRA RAMP occur outside the Plan Area.)

Note: The following general rounding rules were applied to calculated values: values greater than 1,000 were rounded to nearest 1,000; values less than 1,000 and greater than 100 were rounded to the nearest 100; values of 100 or less were rounded to the nearest 10, and therefore totals may not sum due to rounding. In cases where subtotals are provided, the subtotals and the totals are individually rounded. The totals are not a sum of the rounded subtotals; therefore, the subtotals may not sum to the total within the table.